



Index

- & (bitwise operator), 43, 44
- & (pointer operator), 48, 49, 115-116, 141, 167, 170, 262, 347
- & (reference parameter), 340-341, 347
- &&, 40, 41, 42
- <>, 242, 268, 465, 483
- >, 51, 171, 176, 178, 329, 344
 - overloading, 407, 413-414
- >* (pointer-to-member operator), 337, 338, 339
- * (multiplication operator), 37, 38, 39
- * (pointer operator), 48-49, 115-116, 124, 347
- * (printf() placeholder), 202-203
- |, 43, 44
- ||, 40, 41, 42
- [], 51-52, 90, 145, 207, 350, 351, 356
 - overloading, 407-411
- ^, 43, 45, 207
- :, 47, 271, 613
- :: (scope resolution operator), 272, 319, 438-439
- , (comma operator), 50-51
 - overloading, 414-416
- { }, 8, 18, 58, 88
- . (dot operator), 51, 165, 176, 178, 272, 293, 344
- .* (pointer-to-member operator), 337, 338
- !, 40, 41, 42
- !=, 41, 42
- =, 31, 35
- = =, 41, 42
- <, 41, 42
- << (left shift), 43, 45-46
- << (output operator), 262-264
 - overloading, 526-532, 794-795
- <=, 41, 42
- , 37, 38, 39
- -, 38-39, 389-390, 393-395
- () used for clarification in expressions, 55-56
- () function operator, 138
 - overloading, 407, 411-413
- () precedence operator, 40, 42, 51
- % (format specifier), 195
- % (modulus operator), 37, 38, 39
- +, 37, 38, 39
- ++, 38-39, 389-390, 393-395
- # (preprocessor directive), 238
- # (preprocessor operator), 248-249, 250
- # (printf() modifier), 202-203
- ## (preprocessor operator), 248, 249-250
- ?, 47-48, 63-66
- >, 41, 42
- >> (right shift), 43, 45-46
- >> (input operator), 262, 263-264
 - overloading, 526, 532-535, 794-795
- >=, 41, 42
- ;(semicolon), 88, 163
- /, 37, 38, 39
- /* */, 250-251
- //, 252, 262
- ~, 43, 46-48, 285
- 
- abort(), 489, 490, 500, 503, 504, 762
- abs(), 762-763
- _ _abstract keyword, 1000
- Access declarations, 434-437
- Access specifiers, 290, 418-425
- accumulate() algorithm, 920-921
- acos(), 738
- Ada, 5
- Adaptor(s), 633, 876-878
- Address, memory
 - & operator used to return, 48, 115-116
 - pointer as, 48, 115
 - relocatable format, 12

- adjacent_difference()
 - algorithm, 921-922
 - adjacent_find() algorithm, 840
 - adjustfield format flag, 514
 - advance(), 872
 - Aggregate data type, 162
 - ALGOL, 6, 8
 - <algorithm> header, 664
 - Algorithms, 631, 635, 664-674, 840-859
 - table of STL, 665-667
 - Allocation, dynamic. *See* Dynamic allocation
 - allocator class, 632, 879-880
 - member functions, table of, 880
 - Allocators, 632, 879-880
 - AND
 - & bitwise operator, 43, 44
 - && logical operator, 40, 41, 42
 - ANSI/ISO
 - C standard, 2, 4
 - C++ standard, 4, 256-257, 267
 - app, 793
 - append(), 688
 - argc, 144-145, 147
 - Arguments, function
 - call by reference passing convention, 140-141, 170, 339-343
 - call by value passing convention, 139-140
 - command line, 144-147
 - default, 371-378, 380
 - passing arrays as, 92-93, 98, 102, 142-144
 - passing functions as, 126-129
 - argv, 123, 144-147
 - Arithmetic operators, 37-40
 - precedence of, 39
 - Array(s)
 - allocating with new, 350-351
 - bounds checking on, 6, 91, 367, 410
 - compacting, 470-472
 - definition of, 90
 - generating pointer to, 92
 - indexing versus pointer arithmetic, 121-122
 - initialization, 105-107
 - multidimensional, 101-102
 - of objects, 326-329, 354, 364-366
 - to functions, passing, 92-93, 142-144
 - of pointers, 122-123
 - pointers to access, 103-104, 121-122
 - safe, creating, 367-369, 410-411
 - single-dimension, 90-91
 - sorting, 469-470
 - square brackets as operator for indexing, 51-52
 - of strings, 100-101
 - of structures, 166
 - within structures, 173
 - two-dimensional, 96-101
 - unsized, 106-107
 - variable-length, 4
 - vector as dynamic, 635
 - Array-based I/O, 618-626
 - and binary data, 625-626
 - using dynamic arrays and, 624-625
 - using ios member functions with, 619
 - Arrow operator (->), 51, 171, 176, 178, 329, 344
 - overloading, 407, 413-414
 - asctime(), 748-749
 - asin(), 738-739
 - asm statement, 616-617
 - Assembly language, 5, 8-9
 - using asm to embed, 616-617
 - C used in place of, 8, 42-43
 - assert(), 763
 - assign(), 687-688
 - Assignment
 - compound, 56
 - functions used in, 150, 344-345
 - multiple, 37
 - object, 324
 - operation for C++ classes, default, 389
 - operator, 35
 - pointer, 117, 332
 - shorthand, 56, 390
 - structure, 165-166
 - type conversion in, 35-37
 - atan(), 739
 - atan2(), 739
 - ate, 793
 - atexit(), 763
 - atof(), 763-764
 - atoi(), 146, 764
 - atol(), 764
 - attribute, 1003
 - auto keyword, 18
 - auto_ptr class, 928-930
- B**
- B language, 4
 - back_insert_iterator class, 866, 867
 - Backslash character constants, 33-34
 - bad(), 563, 795
 - bad_alloc class, 348, 926
 - bad_cast, 578, 927
 - bad_exception class, 506, 926
 - bad_typeid, 572, 926
 - badbit, 561, 563, 794, 803
 - Base class
 - access control, 418-424
 - constructors, passing parameters to, 430-434
 - definition of, 278, 418
 - general form for inheriting, 279-280, 418
 - inheritance, protected, 424-425
 - virtual, 437-441
 - base(), 868
 - basefield format flag, 514
 - BASIC, 5, 6, 7, 8
 - basic_filebuf class, 788, 789
 - basic_fstream class, 512, 788, 789
 - basic_ifstream class, 512, 788, 789
 - basic_ios class, 511, 512, 788, 789

- basic_iostream class, 511, 512, 788, 789
 - basic_istream class, 511, 512, 788, 789
 - basic_istringstream class, 788, 789
 - basic_ofstream class, 512, 788, 789
 - basic_ostream class, 511, 512, 788, 789
 - basic_ostringstream class, 788, 789
 - basic_streambuf class, 511, 512, 788, 789
 - basic_string class, 683, 882-894
 - constructors, 882
 - member functions, table of, 884-894
 - basic_stringbuf class, 788, 789
 - basic_stringstream class, 788, 789
 - BCPL language, 4
 - before(), 568-569
 - beg, 794
 - begin(), 635, 636, 637, 641
 - Bitler, 632, 812
 - binary, 793
 - binary_function class, 679, 873, 874
 - binary_negate class, 875-876
 - binary_search() algorithm, 840-841
 - bind1st() binder, 680-681, 874-875
 - bind2nd() binder, 680-681, 874-875
 - Binders, 633, 680-682, 874-875
 - BinPred type, 632, 812
 - Bit shift operators (>> and <<), 43, 45-46
 - Bit-fields, 162, 174-176
 - bitset container, 633, 634, 812, 814-816
 - member functions, table of, 815-816
 - <bitset> header, 633, 812
 - Bitwise operation, definition of, 43
 - Bitwise operators, 42-47
 - table of, 43
 - Block statements, 58, 88
 - bool data type, 14, 40, 58, 59, 266
 - _Bool data type, 59, 266
 - boolalpha
 - format flag, 514
 - manipulator, 522, 525-526, 791
 - _ _box keyword, 1001
 - break statement, 67, 68, 69-70, 76, 83-85
 - Broken-down time, 748
 - bsearch(), 764-765
 - BUFSIZ macro, 719
- C**
- .C file extension, 12
 - C Programming Language, The* (Kernighan & Ritchie), 4
 - C standard, ANSI/ISO, 2, 4
 - C89, 4-5
 - C99, 4-5
 - C++
 - differences between C and, 130, 626-627
 - differences between old-style and modern, 267-270
 - origins of, 256-257
 - and robotics, 1006, 1008
 - sample program, 260-263
 - Standard, 4, 257, 267
 - c_str(), 692
 - Calendar time, 748
 - Call by reference, 140-141
 - automatic, using reference parameter, 339-343
 - structure pointers used for, 170
 - Call by value, 139-140
 - calloc(), 758
 - Case sensitivity, 10, 17, 287
 - case statement, 67, 69-70
 - <cassert> header, 763
 - Casts, 54-55
 - and base class pointers, 334, 335
 - C++ operators for, 55, 578-589
 - and pointers, 116, 130-131
 - catch statement, 488-500, 502
 - catch(...) form of, 498-500
 - and derived-class exceptions, 497
 - general form of, 488
 - using multiple, 495-496
 - <cctype> header, 724
 - ceil(), 739-740
 - cerr, 512
 - <cerrno> header, 738
 - char data type, 14, 15
 - char_traits class, 789, 882, 894-896
 - member functions, table of, 895-896
 - Character(s)
 - ASCII, 14, 547
 - in C console I/O, 189-191
 - constants, 32, 626
 - constants, backslash, 33-34
 - control, 724
 - printable, 724
 - set, extended, 547-548
 - wide. *See* Wide character(s)
 - Character translations
 - in C I/O, 213, 217, 706
 - in C++ file I/O, 545, 557
 - cin, 262, 512
 - Class(es)
 - abstract, 455
 - access specifications, 290-292
 - base. *See* Base class
 - creating conversion functions for, 603-607
 - declaration, general form for, 271-272, 290
 - defining functions within, 306-307, 309
 - derived. *See* Derived class
 - forward declaration of, 300
 - friend, 302-303
 - generic. *See* Generic class
 - instance of, 271
 - libraries, 458
 - local, 320-321

- nested, 319
 - overview of, 270-274
 - stream, 511-512
 - structures and, 293-295
 - unions and, 295-297
 - class keyword, 270, 290, 295
 - Class member(s)
 - accessing, public, 272-273, 293
 - definition of, 271, 292
 - initialization syntax, 611-616
 - pointers to, 337-339
 - restrictions on, 292-293
 - static, 310-317
 - clear(), 795
 - clearerr(), 700
 - <climits> header, 14
 - <locale> header, 748
 - clock(), 749
 - clock_t type, 748
 - CLOCKS_PER_SEC, 748, 749
 - clog, 512
 - close(), 542
 - <cmath> header, 738
 - COBOL, 5, 7, 8
 - Code
 - block, 8, 18-20
 - compartmentalization of, 6-7, 8
 - managed (.NET Framework), compiling, 1000, 1003
 - Comma operator, 50-51
 - overloading, 414-416
 - Command line arguments, 144-147
 - Comments
 - in C89, 250-251
 - in C++ and C99, 4, 252, 262
 - Common Language Runtime (CLR), 1000, 1003
 - Comp type, 632, 812
 - compare(), 692
 - Compilation
 - conditional, 242-246
 - separate, 12, 27
 - Compilers
 - compiling C programs with C++, 12
 - working with older C++, 270
 - complex class, 898-901
 - functions defined for, table of, 900-901
 - <complex> header, 898
 - Compound data types, 162
 - Compound statements, 58, 88
 - Conditional expression, 58, 66-67
 - Conglomerate data type, 162
 - conio.h header file, 191
 - const qualifier, 23-24, 25
 - Constants, 32-34
 - const_cast, 586-588
 - Constructor(s), 283-287
 - copy, 322-323, 324, 366-369
 - and default arguments, 375-376
 - execution order of, 317-318, 426-430
 - explicit, 610-611
 - and inheritance, 426-434
 - and member initialization syntax, 613-616
 - overloading, 362-369
 - parameterized, 307-310
 - passing parameters to base class, 430-434
 - container protected variable, 867
 - Containers, 630-631, 812-837
 - defined by STL, table of, 633, 812-813
 - string class and, 693-695
 - typedef names for, 634, 813-814
 - continue statement, 86-87
 - copy() algorithm, 841
 - copy_backward() algorithm, 841
 - cos(), 740
 - cosh(), 740
 - count(), algorithm, 664, 665, 668-669, 841
 - count_if() algorithm, 664, 665, 668, 669-670, 842
 - cout, 262, 512
 - _cplusplus predefined macro, 250
 - .CPP file extension, 12
 - <setjump> header, 767, 770
 - <stdarg> header, 722, 774
 - <stdio> header, 188, 214-215, 700, 719, 721
 - <stdlib> header, 59, 758, 762
 - <signal> header, 769, 771
 - <string> header, 94, 724
 - ctime(), 749
 - <ctime> header, 748
 - ctype.h header file, 724
 - cur, 794
 - current protected member, 868
 - <wchar> header, 776, 779, 782, 783
 - <wctype> header, 776
- 
- Data
 - compartmentalization of, 6-7
 - in expressions, 14
 - Data type(s)
 - aggregate, 162, 173
 - ANSI/ISO C, table of, 15
 - basic, 14-15
 - class as, 271
 - conversion of, in assignments, 35-37
 - conversion of, in expressions, 6, 53-54
 - creating and integrating new C++, 961
 - definition of, 6
 - modifiers for basic, 15-16
 - __DATE__ predefined macro, 250
 - dec
 - format flag, 514, 791
 - manipulator, 522, 791
 - Decrement operator (--), 38-39
 - overloading for prefix and postfix, 389-390, 393-395
 - default statement, 67
 - #define directive, 238-241
 - and function-like macros, 240-241

- and preprocessor operators
 - # and ##, 248-250
 - defined compile-time operator, 247-248
 - __delegate keyword, 1001
 - delete dynamic allocation operator, 347-357, 758
 - and arrays, 350-351
 - and arrays of objects, 356
 - overloading, 398-403, 406-407
 - overloading for arrays, 403-406
 - deque container, 630, 633, 634-635, 812, 816-818
 - member functions, table of, 817-818
 - <deque> header, 633, 812
 - Derived class
 - access declaration within, 434-436
 - creating, 279
 - definition of, 278, 418
 - inheriting multiple base classes, 425-426
 - objects, base class pointers to, 334-336
 - Destructors, 284-287
 - execution order of, 317-318, 426-430
 - and inheritance, 426-430
 - difference_type, 863
 - difftime(), 750
 - distance(), 872
 - div(), 762, 765-766
 - div_t type, 762, 765
 - divides() function object, 677-678
 - do-while loop, 7, 79-81
 - domain_error exception, 928
 - Dot operator (.), 51, 165, 176, 178, 272, 293, 344
 - double data type, 14, 15
 - Dynamic allocation, 129-131
 - functions for, 130-131, 758-759
 - operators for, 347-357, 758
 - dynamic_cast, 578-586
- E**
- Early binding, 458
 - EDOM, 738
 - #elif directive, 243, 244-245, 248
 - else, 59
 - #else directive, 243-245
 - empty(), 646, 655
 - Encapsulation, 258, 265
 - class as basic unit of, 290
 - and global variables, 315
 - how to achieve, 271, 292
 - end, 794
 - end(), 635, 636, 637, 641, 649-651
 - #endif, 243-245
 - endl manipulator, 522, 791
 - ends manipulator, 522, 791
 - enum keyword, 180
 - Enumerations, 162, 180-182
 - EOF macro, 189, 215, 220, 700
 - eof(), 553-555, 563, 625, 795-796
 - eofbit, 794, 803
 - equal()
 - algorithm, 842
 - member function, 870
 - equal_range() algorithm, 842
 - ERANGE, 738, 772, 773
 - erase(), 634, 636, 637, 641, 688-689
 - errno, 700, 738, 772, 773
 - errno.h header file, 738
 - Error checking, run-time, 6
 - #error directive, 241
 - Errors
 - pointer, 131-135
 - See also* Exception handling
 - Escape sequences, 33
 - __event keyword, 1001
 - exception class, 506, 794, 926-927
 - Exception handling, 348, 488-507
 - applying, 506-507
 - and catching all exceptions, 498-500
 - classes, 926-928
 - fundamentals, 488-497
 - and restricting exceptions, 500-502
 - and rethrowing exceptions, 502-503
 - <exception> header, 503, 504, 506, 926-927
 - exceptions(), 796
 - Exclusive OR. *See* XOR
 - exit(), 85-86, 150, 490, 766
 - EXIT_FAILURE, 263, 762, 766
 - EXIT_SUCCESS, 263, 762, 766
 - exp(), 740
 - explicit specifier, 610-611
 - export keyword, 485
 - Expression(s), 52-56
 - conditional, 58, 66-67
 - definition of, 14, 52
 - evaluation order, 52, 65
 - function calls used in, 64-65, 149-150
 - parser, 964-997
 - pointer, 116-120
 - production rules of, 966-967
 - statements, 58, 88
 - tokens, 969
 - type conversion in, 53-54
 - extern storage class specifier, 25-27, 618
 - Extractors, creating, 526, 532-535
- F**
- fabs(), 741
 - facet class, 931
 - fail(), 563, 796
 - failbit, 561, 563, 794, 803
 - failed(), 872
 - failure class, 794
 - false, 40, 58, 266
 - fclose(), 150, 217, 218-220, 701
 - feof(), 220-221, 701
 - ferror(), 224-225, 701-702
 - fflush(), 226-227, 702
 - fgetc(), 218, 702
 - fgetpos(), 702-703
 - fgets(), 192, 222, 232-233, 703
 - File(s), C
 - in C I/O system, 213-214
 - closing, 217
 - control structure, 213
 - erasing, 226

- opening, 215-217, 703-705
- pointer, 215, 216, 217
- File(s), C++
 - closing, 542
 - get pointer, 557, 561
 - opening, 540-542
 - put pointer, 557, 561
 - reading and writing
 - unformatted and binary, 545-553
 - reading and writing text, 543-545
- FILE data type, 213, 215, 700
- File position indicator, 213, 702-703, 708
 - resetting, 223-224, 715
 - setting, 229-230
- `__FILE__` predefined macro, 248, 250
- filebuf class, 540, 790
- fill()
 - algorithm, 843
 - member function, 521-522, 796
- fill_n() algorithm, 843
- `__finally` keyword, 1001
- find()
 - algorithm, 843
 - member function, 635, 659, 662, 690-692
- find_end() algorithm, 843
- find_first_of() algorithm, 843-844
- find_if() algorithm, 844
- fixed
 - format flag, 514, 791
 - manipulator, 522, 791
- flags(), 518-520, 797
- float data type, 14, 15
- floatfield format flag, 514, 791
- Floating-point constants, 32-33
- floor(), 741
- flush manipulator, 522, 791
- flush(), 556-557, 797
- fmod(), 741
- fmtflags enumeration, 513, 791
- fopen(), 215-217, 218-220, 233, 703-705
- FOPEN_MAX macro, 215, 217
- for loop, 7, 70-77
 - declaring variable within, 81
 - general form of, 70-71
 - infinite, 76
 - variations of, 72-76
 - with no body, 77
- for_each() algorithm, 844
- ForIter, 632, 812
- Formal parameters. *See* Parameters, formal
- Format flags, 513-520, 791
- Forth, 5
- FORTRAN, 5, 7, 257
- Forward declaration, 300
- fpos_t data type, 215, 700
- fprintf(), 230-232, 544, 705
- fputc(), 217, 705
- fputs(), 222, 705
- fread(), 227-228, 235, 706
- free(), 130-131, 348, 349, 758-759
- freeze(), 625
- freopen(), 234-235, 706-707
- frexp(), 741-742
- Friend classes, 302-303
- Friend functions, 297-302
 - and the this pointer, 334, 391
- friend keyword, 298
- front_insert_iterator class, 866, 867
- fscanf(), 230-232, 544, 707
- fseek(), 215, 229-230, 707-708
- fsetpos(), 708
- fstream class, 512, 540, 790
- <fstream> header, 540, 790, 791
- fstream(), 797-798
- ftell(), 230, 708-709
- Function(s), 7-8, 10
 - arguments. *See* Arguments, function
 - conversion, creating, 603-607
 - formal parameters of. *See* Parameters, formal
 - friend. *See* Friend functions
 - general form of, 138
 - generic. *See* Generic function(s)
 - inline. *See* Inline functions
 - library, 10-12, 697-698
 - main(). *See* main()
 - member. *See* Member functions
 - objects. *See* Function objects
 - passing multidimensional arrays to, 98, 102
 - passing objects to, 320-323
 - passing single-dimension arrays to, 92-93
 - passing structures to, 167-169
 - pointers to, 126-129
 - prototypes, 155-157, 626
 - predicate, 632
 - recursive, 153-155
 - return type, default
 - to int, 266
 - returning from, 148-149
 - returning objects from, 323-324
 - returning pointers from, 151-152
 - returning references from, 344-345
 - returning values from, 149-151
 - scope rules of, 138-139
 - stand-alone, 7-8, 28
 - used in assignment statement, 344-345
 - used in expressions, 64-65, 149-150
 - virtual. *See* Virtual functions
 - void, 150, 152-153
- Function objects, 632-633, 675-682, 872-878
 - built-in, list of, 632, 675, 873
 - using binders with, 680-682, 874-875
 - creating, 678-680, 873
- Function overloading, 275-278, 360-371
 - and ambiguity, 378-381
 - and constructors, 362-369

and function pointers, 370-371
 versus default arguments, 376-377
 <functional> header, 632-633, 675, 872
 fwide(), 779
 fwrite(), 179, 227-228, 235, 709

G

Garbage collection, 1001
 __gc keyword, 1001
 gcount(), 550-551, 798
 generate() algorithm, 844-845
 generate_n() algorithm, 844-845
 Generated function, 462
 Generic class, 472-484
 creating safe array with, 477-480
 default arguments and, using, 481-483
 explicit specialization of, 483-484
 general form of, 473
 using non-type arguments in, 479-480
 typeid and, 576-578
 Generic function(s), 460-472
 applying, 468-472
 explicitly overloading, 463-465
 general forms of, 460, 462
 restrictions, 467-468
 get(), 546-547, 625, 798-799
 member function of auto_ptr, 929-930
 overloaded forms of, 551
 Get pointer, 557, 804, 808
 getc(), 218, 219-220, 709
 getch(), 190-191, 193
 getchar(), 189-191, 192, 193, 205, 710
 getche(), 190-191, 193
 getenv(), 766
 getline(), 551-553, 799-800
 gets(), 143, 144, 192, 193, 205, 222, 232, 710
 gmtime(), 750

good(), 563, 800
 goodbit, 561, 563, 794, 803
 goto statement, 7, 83, 138
 greater() function object, 680-682
 gslice class, 917, 919-920
 gslice_array class, 920

H

Headers and header files, 27, 157, 242, 261, 268-269, 603
 Heap, 130, 131, 758
 hex
 format flag, 514, 791
 manipulator, 522, 791
 Hexadecimal constants, 33
 Hierarchical classifications, 418
 Hoare, C.A.R., 769
 HUGE_VAL macro, 738, 772

I

__identifier keyword, 1001
 Identifiers, 16-17, 626
 #if directive, 243-244, 245, 247
 if statement
 declaring variable within, 81-82
 general form of, 59
 if-else-if ladder, 62-63
 nested, 60-62
 ? as alternative to, 63-66
 #ifdef directive, 245-246
 #ifndef directive, 245, 246
 ifstream class, 512, 540, 790
 ifstream(), 797-798
 ignore(), 555-556, 800
 imag(), 899
 in, 793
 #include directive, 242, 268, 269
 includes() algorithm, 845
 Increment operator (++), 38-39
 overloading for prefix and postfix, 389-390, 393-395
 indirect_array class, 920
 Inheritance, 259, 278-283, 418-441
 access declaration in, 434-437
 access specifiers and, 418-425
 constructors, destructors, and, 426-434
 multiple base class, 425-426
 and virtual base classes, 437-441
 and virtual attribute of functions, 448-450
 InIter, 632, 812
 Inline functions, 303-307
 within a class, defining, 305-306
 inline keyword, 241, 303, 306
 and C99, 305
 inner_product() algorithm, 922-923
 inplace_merge() algorithm, 845
 Input operator (>>), 262, 263-264
 overloading, 526, 532-535, 794-795
 insert(), 634, 636, 637, 641, 643, 646, 648, 688, 689
 insert_iterator class, 864-866
 inserter(), 865
 Inserters, creating, 526-532
 int data type, 14, 15
 default to, 265-266, 627
 unsigned versus signed, 16
 Integers
 signed vs. unsigned, 16
 size of, 14
 __interface keyword, 1001
 internal
 format flag, 513, 791
 manipulator, 522, 792
 int_type data type, 555
 invalid_argument exception, 928
 I/O, C-style, 188
 functions, 700-722, 779, 780
 I/O, C console, 188-209
 basic functions for, table of, 193
 and characters, 189-191
 formatted, 195-209
 and strings, 191-194
 I/O, C file, 212-235
 common functions for, table of, 214

- connection with console I/O, 233-234
 - files in, 212, 213-214. *See also* File(s), C
 - formatted, with `fprintf()` and `fscanf()`, 230-232
 - random-access, 229-230
 - reading and writing a character in, 217-218
 - reading and writing blocks of data in, 227-228
 - streams in, 212-214. *See also* Streams and strings, 222
 - I/O, C++
 - array-based. *See* Array-based I/O
 - byte-oriented vs. character-oriented, 545-546
 - formatted, 513-526
 - functions, 795-809
 - headers, 790-791
 - manipulators. *See* Manipulators
 - old vs. modern, 510
 - operators. *See* Operators, I/O
 - predefined streams, 512-513
 - streams, 511
 - template classes, 511-512, 788-790
 - I/O, C++ file, 540-566
 - customized I/O and, 563-566
 - flushing buffers in, 556-557
 - random access, 557-561, 814
 - status, obtaining, 561-563
 - See also* Files, C++
 - `_IOFBF`, 719
 - `_IOLBF`, 719
 - `<iomanip>` header, 523, 790, 791, 792
 - `_IONBF`, 719
 - `ios` class, 512, 540, 619, 789
 - `<ios>` header, 790
 - `ios::app`, 541, 801
 - `ios::ate`, 541, 801
 - `ios::badbit`, 561
 - `ios::beg`, 557, 804
 - `ios::binary`, 541, 545, 801
 - `ios::cur`, 557, 804
 - `ios::end`, 557, 804
 - `ios::eofbit`, 561
 - `ios::failbit`, 561
 - `ios::goodbit`, 561
 - `ios::in`, 541, 801
 - `ios::out`, 541, 801
 - `ios::trunc`, 541, 801
 - `ios_base` class, 511, 788, 789
 - `<iosfwd>` header, 790, 793
 - `iosstate` enumeration, 561, 794
 - `iostream` class, 512, 619, 789
 - `<iostream>` header, 260, 278, 510, 512, 790, 791
 - `iostream.h` header file, 510
 - `is_open()`, 542
 - `isalnum()`, 724
 - `isalpha()`, 724
 - `iscntrl()`, 725
 - `isdigit()`, 725
 - `isgraph()`, 725
 - `islower()`, 725-726
 - `isprint()`, 726
 - `ispunct()`, 726
 - `isspace()`, 726
 - `istream` class, 512, 532, 619, 789
 - `<istream>` header, 790
 - `istream_iterator` class, 868-869
 - `istream_type` type, 869, 870
 - `istreambuf_iterator` class, 869
 - `istringstream` class, 790
 - `istringstream()`, 806-807
 - `istrstream` class, 619, 621, 622
 - `isupper()`, 727
 - `iswctype()`, 776-778
 - `isxdigit()`, 727
 - Iteration statements, 58, 70-81
 - declaring variables within, 81
 - Iterator(s), 631, 635, 639-641, 812, 862-872
 - functions, 872
 - predefined, 864-872
 - iterator
 - class, 863
 - type, 631, 641, 863
 - `<iterator>` header, 862, 863
 - `iterator_category` type, 863
 - `iterator_traits` class, 864
 - `iter_swap()` algorithm, 845
- J**
- Java, 5, 7
 - `jmp_buf` type, 767
 - Jump statements, 58, 68, 82-87
- K**
- `kbhit()`, 84
 - Kernighan, Brian, 4
 - Keywords
 - C, 6, 8
 - C89, table of, 10
 - C++, table of, 287-288
 - extended, common, 10
 - .NET Framework extensions to C++, 1000-1002
- L**
- `L_tmpnam`, 721
 - Label
 - identifier for `goto` statement, 83
 - statements, 58, 67
 - `labs()`, 766
 - Language(s), computer
 - block-structured, 6, 139
 - high-level, 5-6
 - middle-level, C as, 5-6
 - programmer's, C as, 8-9
 - structured, C as, 6-8, 257-258
 - Late binding, 458
 - `LC_ALL`, 753
 - `LC_COLLATE`, 753
 - `LC_CTYPE`, 753
 - `LC_MONETARY`, 753
 - `LC_NUMERIC`, 753
 - `LC_TIME`, 753

- lconv structure, 750-751
 - ldexp(), 742
 - ldiv(), 762, 767
 - ldiv_t structure, 762, 765-766, 767
 - left
 - format flag, 513, 791
 - manipulator, 522, 792
 - length_error exception, 928
 - less() function object, 632, 633, 658
 - lexicographical_compare()
 - algorithm, 846
 - Library
 - class, 11, 458, 785-786, 898
 - standard function, 10-12, 697-698
 - standard template. *See* Standard template library (STL)
 - <limits> header, 931
 - #line directive, 248
 - __LINE__ predefined macro, 248, 250
 - Line-buffered input, 190
 - Linkage
 - categories of, 25
 - specification, 617-618
 - Linker, 12, 27
 - list container, 630, 633, 634-635, 645-657, 812, 819-822
 - member functions, table of, 646-647, 819-822
 - <list> header, 633
 - Literals, 32
 - locale class, 931
 - <locale> header, 931
 - locale.h header file, 748
 - localeconv(), 750-752
 - Localization
 - C functions for, 748, 750-751, 752-754
 - class library, 931
 - localtime(), 752
 - log(), 742
 - log10(), 742-743
 - logic_error class, 928
 - Logical operators, 40-42
 - truth table for, 40
 - long modifier, 15-16
 - LONG_MAX, 772
 - LONG_MIN, 772
 - longjmp(), 507, 767, 770
 - Loops
 - do-while, 7, 79-81
 - for. *See* for loop
 - infinite, 76
 - and structured languages, 7
 - time delay, 77
 - while, 7, 77-79
 - with no bodies, 77
 - lower_bound() algorithm, 846
 - lvalue, 35
- ## M
- Macro
 - function-like, 240-241
 - name, 238
 - predefined, 250
 - replacement, 238
 - main(), 10, 156, 627
 - argc and argv as arguments to, 144-147
 - return value from, 153
 - using void in parameter list of, 147
 - make_heap() algorithm, 846-847
 - make_pair(), 660-661, 662, 930-931
 - malloc(), 130-131, 348, 349, 356, 758, 759
 - managed pragma, 1002
 - Manipulators
 - creating custom, 535-538
 - to format I/O, using, 522-526
 - table of C++, 522-523, 791-792
 - map container, 631, 633, 634, 658-664, 813, 822-824
 - member functions, table of, 659-660, 823-824
 - <map> header, 633, 813
 - mask_array class, 920
 - math.h header file, 738
 - max() algorithm, 847
 - max_element() algorithm, 847
 - MB_CUR_MAX, 762, 774
 - mblen(), 767-768
 - mbstate_t type, 776, 783
 - mbstowcs(), 768
 - mbtowc(), 768
 - mem_fun() adaptor, 877
 - mem_fun_ref() adaptor, 878
 - mem_fun_ref_t class, 878
 - mem_fun_t class, 877-878
 - mem_fun1() adaptor, 877
 - mem_fun1_ref() adaptor, 878
 - mem_fun1_ref_t class, 878
 - mem_fun1_t class, 877-878
 - Member functions, 271, 272, 292
 - const, 607-609
 - and scope resolution operator, 272
 - static, 315-317
 - and the this pointer, 332-334
 - volatile, 609
 - within class, defining, 306-307, 309
 - Member variables, 271, 272, 292, 293
 - initialization syntax for, 611-616
 - static, 310-315
 - memchr(), 727
 - memcmp(), 727-728
 - memcpy(), 728
 - memmove(), 728
 - <memory> header, 879, 928, 931
 - memset(), 729
 - merge(), 647, 648, 653-655
 - algorithm, 847-848
 - Metadata, 1002
 - Microsoft Intermediate Language (MSIL), 1000
 - min() algorithm, 848
 - min_element() algorithm, 848
 - mismatch() algorithm, 848-849
 - mktime(), 752
 - modf(), 743
 - Modula-2, 5, 6, 7, 8
 - <mscorlib.dll>, 1002

- multimap container, 633, 634, 658, 813, 824-826
 - member functions, table of, 825-826
 - multiset container, 633, 634, 813, 827-829
 - member functions, table of, 827-829
 - mutable keyword, 25, 608-609
- N**
- name(), 568, 569
 - Namespace, 30, 261, 269-270, 592-603
 - unnamed, 598-599
 - namespace statement, 267, 270, 592-593
 - NDEBUG, 763
 - negate() function object, 675, 676-677
 - Negators, 633, 682, 875-876
 - .NET Framework, 1000-1003
 - C++ keyword extensions, 1000-1002
 - preprocessor extensions, 1002
 - new dynamic allocation
 - operator, 347-357, 758, 926
 - and allocating arrays, 350-351
 - and allocating objects, 351-356
 - and initializing memory, 349-350
 - overloading, 398-403, 406-407
 - overloading for arrays, 403-406
 - placement form of, 357
 - <new> header, 348, 356
 - next_permutation()
 - algorithm, 849
 - noboolalpha manipulator, 522, 792
 - _nogc keyword, 1001
 - noshowbase manipulator, 522, 792
 - noshowpoint manipulator, 522, 792
 - noshowpos manipulator, 522, 792
 - noskipws manipulator, 523, 792
 - nounitbuf manipulator, 523, 792
 - nouppercase, 523, 792
 - NOT
 - ! logical operator, 40, 41, 42
 - ~ bitwise operator, 43, 46-48
 - not1() negator, 682, 875
 - not2() negator, 682, 875
 - nothrow option for new, 356
 - overloading, 406-407
 - nothrow_t data type, 407
 - npos constant, 685, 863
 - nth_element() algorithm, 849
 - Null
 - definition of, 94
 - statement, 88
 - NULL macro, 215, 762
 - Numeric
 - classes, 898-924
 - constants, 32-33
 - numeric_limits class, 931
- O**
- Object(s)
 - allocating, 351-356
 - arrays of, 326-329, 354, 364-366
 - assignment, 324
 - base class pointers to
 - derived class, 334-336
 - base class references to
 - derived class, 346
 - creating, 271
 - definition of, 258, 290
 - factory, 574
 - function. *See* Function objects
 - to functions, passing, 320-323
 - from functions, returning, 323-324
 - initialization, 283, 307, 309, 310, 367
 - passing references to, 343-344
 - pointers to, 329-331
 - Object-oriented programming (OOP), 256, 257-259
 - oct
 - format flag, 514, 791
 - manipulator, 523, 792
 - Octal constants, 33
 - off_type type, 793, 804
 - ofstream class, 512, 540, 790
 - ofstream(), 797-798
 - One's complement operator (~), 43, 46-48
 - OOP (Object-oriented programming), 256, 257-259
 - open(), 540-542, 800-801
 - openmode, 541, 793
 - Operator(s)
 - arithmetic, 37-40
 - arrow. *See* Arrow operator (->)
 - assignment, 35
 - bitwise, 42-47
 - casting, 54-55, 578-589
 - comma, 50-51
 - compile-time, 50
 - dot, 51, 165, 176, 178, 272, 293, 344
 - dynamic allocation, 347-357
 - pointer, 48-49, 115-116, 347
 - pointer-to-member (.* and ->*), 337, 338, 339
 - precedence of C, 52, 53
 - relational and logical, 40-42
 - scope resolution, 272, 319, 438-439
 - ternary (?), 47-48, 63-66
 - operator functions
 - creating member, 384-391
 - definition of, 384
 - using friend, 391-398
 - operator keyword, 384
 - Operator overloading, 278, 384-416
 - [], (), and ->, 407-414
 - comma, 414-416

- increment and decrement, 389-390, 393-395
 - new and delete, 398-407, 758
 - restrictions, 390-391
 - shorthand, 390
 - See also* operator functions
 - operator(), 632, 675, 678-680, 872, 876, 877
 - Operators, I/O (<< and >>), 262-264
 - overloading, 526-535, 794-795
 - OR
 - bitwise operator (|), 43, 44
 - logical operator (||), 40, 41, 42
 - ostream class, 512, 526, 619, 789
 - <ostream> header, 790
 - ostream_iterator class, 870-871
 - ostream_type, 870, 872
 - ostreambuf_iterator class, 871-872
 - ostringstream class, 790
 - ostringstream(), 806-807
 - ostrstream class, 619, 624
 - out, 793
 - out_of_range exception, 928
 - Outlter, 632, 812
 - Output operator (<<), 262-264
 - overloading, 526-532, 794-795
 - overflow_error exception, 928
 - overload keyword, 287, 371
 - Overloading functions. *See* Function overloading
 - Overloading operators. *See* Operator overloading
 - Overriding versus function overloading, 446-447
- P**
- pair template class, 632, 660, 662, 930-931
 - Paragraph alignment, 183
 - Parallax, Inc., 1007
 - Parameters, formal, 21, 139, 626
 - declarations, classic versus modern, 158-159
 - reference, 141, 339-343, 346
 - variable number of, 158
 - Parity bit, 43, 44
 - partial_sort() algorithm, 849-850
 - partial_sort_copy() algorithm, 850
 - partial_sum() algorithm, 923-924
 - partition() algorithm, 850
 - Pascal, 5, 6, 257
 - pcount(), 620
 - peek(), 556, 801
 - perfor(), 710-711
 - _pin keyword, 1002
 - plus() function object, 675
 - POD (Plain Old Data), 295, 296
 - Pointer(s), 114-135
 - accessing arrays with, 103-104, 121-122
 - arithmetic, 103, 117-118
 - to arrays, generating, 92
 - arrays of, 122-123
 - assignments, 117, 332
 - base type of, 49, 115, 118
 - C file, 215, 216, 217
 - C++ file, 557
 - to class members, 337-339
 - comparisons, 119-120, 133
 - definition of, 48, 114
 - to derived class objects, 334-336
 - dynamic allocation and, 129-131
 - to functions, 126-129
 - indexing, 102-104
 - initializing, 125-126, 132, 134-135
 - to objects, 329-331
 - operators, 48-49, 115-116, 347
 - to pointers, 123-124
 - problems with, 131-135
 - returned from functions, 151-152
 - structure, 169-173
 - this, 315, 332-334
 - typeid and base-class, 570-572
 - void*, 130
 - pointer type, 863
 - pointer_to_binary_function class, 876-877
 - pointer_to_unary_function class, 876, 877
 - Polymorphism, 258-259
 - through function overloading, 275, 276, 360
 - through operator overloading, 278
 - Polymorphism, run-time
 - through inheritance and virtual functions, 283, 336, 444, 446, 455-458
 - through RTTI and casting operators, 568
 - pop_back(), 634
 - pop_front(), 635
 - pop_heap() algorithm, 850-851
 - Portability, 6
 - using sizeof to ensure, 183-184
 - using typedef to aid, 184-185
 - pos_type data type, 561, 793, 804
 - pow(), 743
 - #pragma directive, 248
 - precision(), 520-522, 802
 - Predicate functions, 632
 - Preprocessor directives, 238-248
 - Preprocessor operators, 248-250
 - prev_permutation() algorithm, 851
 - printf(), 117, 134, 192, 195-203, 233, 711-713
 - in C++ program, 262
 - format specifiers, table of, 195-196, 712
 - return value of, 150, 195, 711
 - priority_queue container, 633, 813, 830-831
 - member functions, table of, 831
 - private access specifier, 290, 418
 - effects of, 419-420
 - Program(s)
 - general form of C, 10, 11
 - general form of C++, 288
 - systems, 9

__property keyword, 1002
 protected access specifier, 290, 418, 420
 effects of, 420-425
 Prototypes, function, 155-157, 626
 ptr_fun() adaptor, 876-877
 ptrdiff_t type, 664, 842, 863
 public access specifier, 271, 290, 418
 effects of, 418-419
 push_back(), 634, 636, 637, 646, 647, 649, 651-652, 867
 push_front(), 635, 647, 648, 651-652, 867
 push_heap() algorithm, 851
 Put pointer, 557, 804, 808
 put(), 546, 547-548, 626, 802
 putback(), 556, 802
 putchar(), 217-219, 714
 putchar(), 189-190, 193, 232, 714
 puts(), 192-194, 714

Q

qsort(), 768-769
 queue container, 633, 813, 829-830
 member functions, table of, 829-830
 <queue> header, 633, 813
 Quicksort, 155, 769

R

raise(), 769
 rand(), 59, 574, 770
 RAND_MAX, 59, 762, 770
 RandIter, 632, 812
 Random-access I/O, 229-230, 557-561, 804
 random_shuffle() algorithm, 851-642
 range_error exception, 928
 raw_storage_iterator class, 931
 rdstate(), 561-563, 802-803
 read(), 548-551, 626, 803
 readsome(), 803-804

real(), 899
 realloc(), 758, 759
 Recursion, 153-155
 Reference(s)
 definition of, 339
 independent, 345-346
 to objects, passing, 343-344
 parameters, 339-343, 346, 393-394
 restrictions, 347
 returning, 344-345
 typeid and, 572-573
 and virtual functions, 447-448
 reference type, 863
 register storage class specifier, 30-31, 627
 reinterpret_cast, 588-589
 Relational operators, 40-42
 release(), 929
 Relocatable format, 12
 remove(), 226, 715
 algorithm, 852
 remove_copy() algorithm, 666, 670-672, 852
 remove_copy_if() algorithm, 852
 remove_if() algorithm, 666, 681-682, 852
 rename(), 715
 replace(), 688, 689
 algorithm, 852-853
 replace_copy() algorithm, 666, 670-672, 852-853
 replace_copy_if() algorithm, 852-853
 replace_if() algorithm, 852-853
 resetiosflags manipulator, 523, 792
 restrict qualifier, 4
 return statement, 82
 using to return from a function, 148-149
 using to return a value, 149
 reverse() algorithm, 667, 672-673, 853
 reverse_copy() algorithm, 853
 reverse_iterator class, 868

rewind(), 223-224, 715
 rfind(), 690-692
 Richards, Martin, 4
 right
 format flag, 513, 791
 manipulator, 523, 792
 Ritchie, Dennis, 4
 Robotics, 1006-1008
 rotate() algorithm, 853
 rotate_copy() algorithm, 853-854
 Run-time type identification (RTTI), 568-578
 runtime_error class, 928
 rvalue, 35

S

Scalar, 59
 scanf(), 195, 203-209, 262, 715-719
 format specifiers, table of, 204, 716
 Scanset, 206-207, 718-719
 scientific
 format flag, 514, 791
 manipulator, 523, 792
 Scope resolution operator (::), 272, 319, 438-439
 Scope rules, 138
 __sealed keyword, 1002
 search() algorithm, 854
 search_n() algorithm, 854
 SEEK_CUR macro, 215, 229, 708
 SEEK_END macro, 215, 229, 708
 SEEK_SET macro, 215, 229, 230, 708
 seekdir enumeration, 557, 794, 804
 seekg(), 557-560, 804
 seekp(), 557-560, 804
 Selection statements, 58, 59-70
 declaring variables within, 81-82
 set container, 633, 634, 813, 831-833
 member functions, table of, 832-833

- <set> header, 633, 813
- set_difference() algorithm, 854-855
- set_intersection() algorithm, 855
- set_symmetric_difference() algorithm, 855-856
- set_terminate(), 504
- set_unexpected(), 504
- set_union() algorithm, 856
- setbase manipulator, 523, 792
- setbuf(), 719
- setf(), 514-515, 805
 - overloaded, 516-518
- setfill manipulator, 523, 792
- setiosflags() manipulator, 523, 525, 792
- setjmp(), 507, 767, 770
- setlocale(), 752-753
- setprecision manipulator, 523, 792
- setvbuf(), 719-720
- setw manipulator, 523, 792
- short modifier, 15-16
- Shorthand assignment operators, 56, 390
- showbase
 - format flag, 514, 791
 - manipulator, 523, 792
- showpoint
 - format flag, 514, 791
 - manipulator, 523, 792
- showpos
 - format flag, 514, 791
 - manipulator, 523, 792
- SIG_DFL, 771
- SIG_ERR, 771
- SIG_IGN, 771
- SIGABRT, 769
- SIGFPE, 769
- SIGILL, 769
- SIGINT, 770
- Sign flag, 16
- signal(), 770-771
- signed modifier, 15-16
- SIGSEGV, 770
- SIGTERM, 770
- sin(), 150, 743
- sinh(), 744
- size(), 636, 637
- sizeof operator, 50, 131, 183-184
- size_t data type, 50, 130, 215, 398, 700, 724, 762, 776
- skipws
 - format flag, 513, 791
 - manipulator, 523, 792
- slice class, 917-919
- slice_array class, 920
- sort(), 647, 652-653
 - algorithm, 856
- sort_heap() algorithm, 856-857
- splice(), 647, 648
- sprintf(), 720
- sqrt(), 150, 744
- sscanf(), 720
- sqrt(), 150, 744
- srand(), 771
- <sstream> header, 790
- stable_partition() algorithm, 857
- stable_sort() algorithm, 857
- Stack
 - and local variables, 20
 - and recursive routines, 154
- stack container, 633, 813, 833-834
 - member functions, table of, 834
- <stack> header, 633, 813
- Standard C++, 4, 257, 267
- Standard template library (STL), 11, 256-257, 630-695
 - elements of, 630-634
 - general theory of operation, 634-635
- Statements, 57-88
- static storage class specifier, 28-30, 310
- static_cast, 588
- std namespace, 261, 269-270, 510, 592, 601-603
- stdarg.h header file, 722
- <stdbool.h> header, 266
- __STDC__ predefined macro, 250
- stderr standard stream, 232-233
- <stdexcept> header, 926, 927-928
- stdin standard stream, 232-234
- stdio.h header file, 188, 214-215, 700
- stdlib.h header file, 59, 759, 762
- stdout standard stream, 232-234
- Stepanov, Alexander, 256
- Storage class specifiers, 25-31
- str(), 624, 806
- strcat(), 94-95, 685, 729
- strchr(), 94-95, 729
- strcmp(), 74, 94-95, 128, 730
- strcoll(), 730
- strcpy(), 94-95, 684, 685, 731
- strcspn(), 731
- Stream(s)
 - binary, 212, 213
 - C++, 510
 - for C++ array-based I/O, 619-623
 - for C++ file I/O, 540
 - classes, 510-512, 540, 618-619
 - flushing, 226-227
 - predefined C++, 512-513
 - redirecting standard, 232, 233-235, 512
 - standard C, 232-233
 - text, 212-213
- streambuf class, 512, 790
- <streambuf> header, 791
- streambuf_type, 872
- streamoff data type, 793
- streampos data type, 793
- streamsize data type, 548, 793
- strerror(), 731
- strftime(), 753-754
- Stride, 918
- String(s)
 - as arrays, 90, 94-95
 - arrays of, 100-101
 - class, creation of custom, 936-961
 - classes, Standard C++, 94, 630, 683-695, 882-896
 - in console I/O, 192-194
 - constant, 33, 94, 126
 - in C file I/O, 222
 - limitations of
 - null-terminated, 683-684
 - manipulation functions, 94-95
 - substring subtraction from, 936, 945-946
 - table, 126

- string class, 94, 630, 683-695, 882, 884
 - and containers, 693-695
 - dynamic aspect of, 687
 - member functions, 687-692
 - operators defined for, 685
 - <string> header, 684
 - string.h header file, 724
 - stringbuf class, 790
 - stringstream class, 790
 - stringstream(), 806-807
 - strlen(), 24, 79, 94-95, 731-732
 - strncat(), 732
 - strncmp(), 732
 - strncpy(), 733
 - Stroustrup, Bjarne, 256, 267
 - strpbrk(), 733
 - strchr(), 733
 - strspn(), 734
 - strstr(), 94-95, 734
 - stringstream class, 619, 623, 625
 - <sstream> header, 618
 - strtod(), 771-772
 - strtok(), 734
 - strtol(), 772
 - strtoul(), 772-773
 - struct keyword, 162, 163, 295
 - Structure(s), 162-174
 - arrays of, 166
 - arrays and structures
 - within, 173-174
 - assignments, 165-166
 - and classes, 293-295
 - declaration, 162-163, 164-165
 - members, accessing, 165, 171, 173
 - passing to functions, 167-169
 - pointers, 169-173
 - size of, determining, 183
 - variable, declaring, 163-164
 - strxfrm(), 735
 - swap() algorithm, 857
 - swap_ranges() algorithm, 858
 - switch statement, 67-70
 - declaring variable within, 81
 - sync_with_stdio(), 807
 - system(), 773
 - Systems program, 9
- T**
- tan(), 744
 - tanh(), 744
 - tellg(), 561, 808
 - tellp(), 561, 808
 - Template function. *See* Generic function(s)
 - template keyword, 460
 - template< > syntax, 465, 483
 - Templates, 460-485
 - advantages to using, 485
 - definition of, 460
 - See also* Generic class; Generic function(s)
 - terminate(), 489, 503-505
 - terminate_handler type, 504, 927
 - Ternary operator (?), 47-48, 63-66
 - this pointer, 315, 332-334, 386, 391
 - Thompson, Ken, 4
 - throw statement, 489-490, 502-503
 - throw() clause, 500
 - Time and date functions, 748-755
 - Time delay loops, 77
 - time.h header file, 748
 - time(), 754-755
 - __TIME__ predefined macro, 250
 - time_t data type, 748
 - tm structure, 748
 - TMP_MAX, 721
 - tmpfile(), 720-721
 - tmpnam(), 721
 - Token, 969
 - tolower(), 735
 - toupper(), 735
 - towctrans(), 778-779
 - transform() algorithm, 667, 673-674, 676-678, 858
 - true, 40, 58, 266
- U**
- True and false in C and C++, 40, 58
 - trunc, 793
 - try statement, 488-493, 501-502
 - __try_cast keyword, 1002
 - Two's complement, 16
 - Type checking and C++ pointers, 549
 - Type conversion
 - and ambiguity in function overloading, 378-380
 - in assignments, 35-37
 - in expressions, 53-54
 - using unions for nonstandard, 178-179
 - Type promotion, 53
 - type_info class, 568, 931
 - typedef statement, 162, 184-185
 - typeid, 568-578, 926-927
 - using dynamic_cast to replace, 582-584
 - <typeinfo> header, 568, 931
 - typename keyword, 460, 484-485
 - __typeof keyword, 1002
 - Types. *See* Data types
- U**
- ULONG_MAX, 773
 - unary_function class, 678, 873-874
 - unary_negate class, 875, 876
 - uncaught_exception(), 505
 - #undef directive, 246-247
 - underflow_error exception, 928
 - unexpected(), 500, 501, 503-504, 926
 - unexpected_handler type, 504, 927
 - ungetc(), 721-722
 - union keyword, 177
 - Unions, 162, 176-179, 184
 - anonymous, 179, 296-297
 - and classes, 295-297
 - for nonstandard type conversions, 178-179
 - size of, determining, 184

unique() algorithm, 858-859
 unique_copy() algorithm, 858-859
 unitbuf
 format flag, 514, 791
 manipulator, 523, 792
 UNIX, 4
 unmanaged pragma, 1002
 UnPred type, 632, 812
 unsetf(), 515-516, 808
 unsigned modifier, 14-16
 upper_bound() algorithm, 859
 uppercase
 format flag, 514, 791
 manipulator, 523, 792
 #using preprocessor
 directive, 1002
 using statement, 261, 270, 434, 437, 596-598
 <utility> header, 632, 931

V

va_arg(), 773-774
 va_end(), 773-774
 va_list type, 722, 774
 va_start(), 773-774
 valarray class, 902-920
 member functions, table of, 903-907
 nonmember operator
 functions defined for, table of, 908-913
 transcendental functions
 defined for, table of, 914-915
 <valarray> header, 902
 __value keyword, 1002
 Variables, 17-23
 automatic, 18
 declaration vs.
 definition of, 26
 declaring, 17-18, 81-82
 as formal parameters, 21
 initializing, 31-32
 instance, 292

 member. *See* Member
 variables
 placement in memory, 133
 pointer, 48-49, 115
 reference. *See* Reference(s)
 register, 30-31
 storage class specifiers for, 25-31
 structure, 163-164
 Variables, global, 7, 21-23
 declarations, difference
 between C and C++, 626
 and encapsulation, 315
 extern used with, 25-27
 static, 29-30, 598-599
 Variables, local, 6-7, 18-20, 21, 22
 declarations, differences
 between C and C++, 19-20, 264-265, 626
 initializing, 20
 static used with, 20, 28-29, 30, 139
 vector container, 630, 633, 634, 635-645, 813, 834-837
 member functions, table of, 637, 835-837
 <vector> header, 633, 813
 vfprintf(), 722
 Virtual functions, 444-458
 and base-class references, 447-448
 and class libraries, 458
 hierarchical nature of, 450-453
 and inheritance of virtual
 attribute, 448-450
 and late binding, 458
 overloading versus
 overriding and, 446-447
 pure, 453-455
 using, 455-458
 virtual keyword, 440, 444, 445
 Visual C++ compiler, 191
 void data type, 14, 15, 153, 261, 626

volatile access modifier,
 24-25, 609
 vprintf(), 722
 vsprintf(), 722

W

wchar.h header file, 776
 WCHAR_MAX, 776
 WCHAR_MIN, 776
 wchar_t data type, 14, 32, 513, 698, 776
 wcstombs(), 774
 wctomb(), 774
 wctrans(), 778-779
 wctrans_t type, 776
 wctype.h header file, 776
 wctype(), 776-778
 wctype_t type, 776
 WEOF macro, 776
 werr, 513
 what(), 794, 926
 while loop, 7, 77-79
 declaring variable within, 81
 Wide character(s), 511, 513, 545
 functions, 776-784
 I/O classes, 512, 789-790
 width(), 520, 521-522, 808-809
 win, 513
 wint_t type, 776
 wlog, 513
 Word alignment, 183
 wout, 513
 write(), 548-551, 626, 809
 ws manipulator, 523, 792
 wstreampos type, 793
 wstring class, 683, 862, 864

X

XOR
 bitwise operator (^), 43, 45
 logical operation, 40-42

McGraw-Hill/Osborne Reprints & McGraw-Hill (India) Professional

Titles in Bold are New Releases

Prices subject to change without notice.

DISCOUNT CLASS	PUB/R EP	10-digit ISBN	13-digit ISBN	AUTHOR	TITLE	Edition	Price (Rs.)
BUSINESS INTELLIGENCE							
BUSINESS OBJECTS							
F	REP	0070636419	9780070636415	HOWSON	Business Objects XI: The Complete Reference	2	550.00
CRYSTAL REPORTS							
F	REP	0070583129	9780070583122	HARPER	Crystal Reports 9 on Oracle	1	395.00
F	REP	0070612102	9780070612105	PECK	Crystal Reports XI: The Complete Reference	1	625.00
CERTIFICATION							
CISCO							
F	REP	0070583005	9780070583009	DEAL	CCNA CISCO Certified Network Associate Study Guide (Exam 640-801) (With CD)	1	615.00
CISSP							
F	REP	0070607877	9780070607873	HARRIS	CISSP All-in-One Exam Guide	3	625.00
A+							
F	REP	0070594899	9780070594890	MEYERS	Mike Meyer's A+ Guide to PC Hardware (With CD)	1	495.00
F	REP	0070595062	9780070595064	MEYERS	Mike Meyer's A+ Guide to Managing and Troubleshooting PCs (With CD)	1	650.00
F	REP	0070636842	9780070636842	MEYERS	A+ All-in-One Certification Exam Guide (With CD)	6	695.00
CRCP							
F	REP	0070599157	9780070599154	HARPER	All in One CRCP Crystal Reports Certified Professional Exam Guide (With CD)	1	695.00
CWSP							
F	REP	0070636508	9780070636507	MOERSCHEL	CWSP Certified Wireless Security Professional: Official Study Guide (Exam PW-200)	2	550.00
NETWORK+							
F	REP	0070634696	9780070634695	CLARKE/GIBBS	Network+ Certification Study Guide, 3/e	3	695.00
F	REP	0070598525	9780070598522	MEYERS	Mike Meyer's Network+ Guide to Managing and Troubleshooting Networks (With CD)	1	595.00
PMP							
F	REP	0070619301	9780070619302	PHILLIPS	PMP: Project Management Professional Study Guide (With CD)	2	595.00
SAP R/3							
F	REP	0074637371	9780074637371	MILLER	SAP R/3 Certification Exam Guide (With CD)	1	575.00
SECURITY+							
F	REP	0070618372	9780070618374	WHITE	Security+ Certification All-In-One Exam Guide	1	650.00
WIRELESS#							
F	REP	0070619611	9780070619616	CARPENTER	Wireless# Certification Official Study Guide (Exam PW0-050)	1	495.00
COMPUTER ARCHITECTURE							
E3C	PUB	0070532362	9780070532366	GOVINDARAJALU	Computer Architecture and Organization: Design Principles and Applications	1	350.00

DISCOUNT CLASS	PUB/R EP	10-digit ISBN	13-digit ISBN	AUTHOR	TITLE	Edition	Price (Rs.)
CUSTOMER RELATIONSHIP MANAGEMENT (CRM)							
F	REP	0070590575	9780070590571	GREENBERG	CRM at the Speed of Light	3	450.00
DATA MINING, DATA WAREHOUSING & KNOWLEDGE MANAGEMENT							
F	REP	0070402736	9780070402737	BERSON	Building Data Mining Applications for CRM	1	425.00
F	REP	0074637401	9780074637401	MATTISON	Web Warehousing and Knowledge Management	1	395.00
E2	PUB	0070635447	9780070635449	MOHANTY	Data Warehousing: Design, Development and Best Practices	1	395.00
DATABASE MANAGEMENT SYSTEMS (DBMS)							
ADO.NET							
F	REP	0070532834	9780070532830	OTEY	ADO.NET: The Complete Reference	1	695.00
CITRIX							
F	REP	0070618445	9780070618442	KAPLAN	Citrix Access Suite 4 Advance Concepts: The Official Guide	2	495.00
DB2							
F	REP	0070495696	9780070495692	MELNYK	DB2: The Complete Reference	1	595.00
F	REP	0070658498	9780070658493	ZIKOPOLOUS	IBM DB2 Version 9 New Features	1	495.00
GRID COMPUTING							
E2	PUB	0070600961	9780070600966	JANAKIRAM	Grid Computing Models: A Research Monograph (Book + CD)	1	650.00
MICROSOFT SQL SERVER 2005							
F	REP	0070635242	9780070635241	OTEY	Microsoft SQL Server 2005 Developer's Guide	1	525.00
F	REP	0070635250	9780070635258	PETKOVIC	Microsoft SQL Server 2005: A Beginners Guide	1	595.00
F	REP	0070636788	9780070636781	SHAPIRO	Microsoft SQL Server 2005: The Complete Reference	1	525.00
PHP & MySQL							
F	REP	0070589747	9780070589742	HORN	MySQL Essential Skills: A Beginner's Guide	1	395.00
F	REP	0070601275	9780070601277	VASWANI	How to Do Everything with PHP & MySQL	1	425.00
F	REP	0070586845	9780070586840	VASWANI	MYSQL: The Complete Reference	1	495.00
ORACLE PRESS							
F	REP	007048693X	9780070486935	ABBEY	Oracle 9i: A Beginner's Guide	1	395.00
F	REP	0070636052	9780070636057	ABEL	Oracle E-Business Suite Security	1	395.00
F	REP	0070587930	9780070587939	ABRAMSON	Oracle Database 10g: A Beginner's Guide	1	395.00
F	REP	0070618399	9780070618398	ALAPATI	OCA Oracle Application Server 10g Administrator Study Guide (Exam 1Z1-311)	1	450.00
F	REP	0070598673	9780070598676	ALAPATI	OCP Oracle Database 10g: New Features for Administrators Exam Guide (With CD)	1	575.00
F	REP	0070593876	9780070593879	ALLEN	Oracle Database 10g PL/SQL 101	1	395.00
F	REP	0070474176	9780070474178	ALLEN	Oracle: OCP Building Internet Applications I & II Exam Guide (With CD)	1	425.00
F	REP	0070411697	9780070411692	ALLEN/THOMAS	Oracle Certified Professional Financial Applications Consultant Exam Guide	1	750.00
F	REP	0070618402	9780070618404	ARMSTRONG-SMITH	Oracle Discoverer 10g Handbook	1	625.00
F	REP	0070636028	9780070636026	BOBROWSKI	Hands-On Oracle Database 10g Express Edition for Linux, w/CD	1	550.00
F	REP	0070636036	9780070636033	BOBROWSKI	Hands-On Oracle Database 10g Express Edition for Windows, w/CD	1	550.00
F	REP	0070486832	9780070486836	BROWN	Oracle 9i Web Development	1	495.00
F	REP	0070495726	9780070495722	BURLESON	Oracle 9i: UNIX Administration Handbook	1	450.00
F	REP	0070593930	9780070593930	BURLESON	Oracle 9i High-Performance Tuning with Statspack	1	495.00

DISCOUNT CLASS	PUB/R EP	10-digit ISBN	13-digit ISBN	AUTHOR	TITLE	Edition	Price (Rs.)
F	REP	0070474206	9780070474208	COUCHMAN	Oracle OCP Introduction to Oracle 9i: SQL Exam Guide 1Z0-007	1	425.00
F	REP	0070486824	9780070486829	COUCHMAN	OCP Oracle 9i Database: Fundamental I Exam Guide	1	425.00
F	REP	0070498938	9780070498938	COUCHMAN	Oracle: OCA Oracle 9i Associate DBA Certification Exam Guide (With CD)	1	595.00
F	REP	0070599181	9780070599185	FREEMAN	Portable DBA Oracle	1	495.00
F	REP	0070587779	9780070587779	FREEMAN	Oracle Database 10g New Features	1	395.00
F	REP	0070530874	9780070530874	FREEMAN	Oracle 9i: RMAN Backup & Recovery	1	450.00
F	REP	0070587760	9780070587762	GARMANY	Oracle Application Server 10g Administration Handbook	1	450.00
F	REP	0070495319	9780070495319	GERALD	Oracle: E-Business Suite Manufacturing & Supply Chain Management	1	525.00
F	REP	0070637199	9780070637191	GOPALAKRISHNAN	Oracle Real Application Clusters Handbook	1	450.00
F	REP	0070618968	9780070618961	GOYAL	Grid Revolution: An Introduction to Enterprise Grid Computing	1	150.00
F	REP	0070636044	9780070636040	GOYAL	Enterprise Grid Computing with Oracle	1	395.00
F	REP	0070607699	9780070607699	HARDMAN	Expert Oracle PL/SQL	1	495.00
F	REP	0070636915	9780070636910	HART	Oracle Database 10g RMAN Backup & Recovery	1	525.00
F	REP	0070588627	9780070588622	HART	Oracle Database 10g High Availability with RAC, Flashback & Data Guard	1	450.00
F	REP	0070636567	9780070636569	HOTKA	Oracle SQL Developer Handbook	1	350.00
F	REP	0070586594	9780070586598	IYER	Oracle E-Business Suite Financials Administration	1	395.00
F	REP	0070586608	9780070586604	JAMES	Oracle E-Business Suite Financials Handbook	1	595.00
F	REP	0070589720	9780070589728	KNOX	Effective Oracle Database 10g Security by Design	1	450.00
F	REP	007063646X	9780070636460	KOLETZKE	Oracle JDeveloper 10g for Forms & PL/SQL Developers: A Guide to Web Development with Oracle ADF	1	525.00
F	REP	0074637789	9780074637784	KOLETZKE	Oracle Developer Advanced Forms & Reports	1	550.00
F	REP	0070582807	9780070582804	KYTE	Effective Oracle by Design	1	525.00
F	REP	0070618380	9780070618381	LINNEMEYER	Oracle HTML DB Handbook	1	425.00
F	REP	0070601135	9780070601130	LONEY	Oracle Database 10g DBA Handbook	1	495.00
F	REP	0070594252	9780070594258	LONEY	Oracle Database 10g: The Complete Reference (With CD)	1	595.00
F	REP	0070486743	9780070486744	LONEY	Oracle 9i: DBA Handbook	1	525.00
F	REP	0070499020	9780070499027	LONEY	Oracle 9i: The Complete Reference (With CD)	1	525.00
F	REP	0070636648	9780070636644	McLAUGHLIN	Oracle Database 10g Express Edition PHP Web Programming	1	595.00
F	REP	0070540659	9780070540651	NIEMIEC	Oracle 9i Performance Tuning: Tips & Techniques	1	525.00
F	REP	0070486980	9780070486980	O'HEARN	Oracle OCP Developer PL/SQL Program Units Exam Guide (With CD)	1	450.00
F	REP	0070598940	9780070598942	OSTROWSKI	Oracle Application Server 10g Web Development	1	525.00
F	REP	0070495351	9780070495357	PACK	Oracle: OCP Oracle 9i Database: Performance Tuning Exam Guide	1	450.00
F	REP	0070587558	9780070587557	PRICE	Oracle Database 10g SQL	1	475.00
F	REP	0070597901	9780070597907	ROY-FADERMAN	Oracle JDeveloper: 10g Handbook	1	550.00
F	REP	0070411840	9780070411845	SARIN	Oracle DBA: Tips and Techniques	1	425.00

DISCOUNT CLASS	PUB/R EP	10-digit ISBN	13-digit ISBN	AUTHOR	TITLE	Edition	Price (Rs.)
F	REP	0070590265	9780070590267	SCARDINA	Oracle Database 10g XML & SQL: Design, Build & Manage XML Applications in Java, C, C++ & PL/SQL	1	450.00
F	REP	007059028	9780070590281	SHEE	Oracle Wait Interface: A Practical Guide to Performance Diagnostics and Tuning	1	495.00
F	REP	0070597790	9780070597792	URMAN	Oracle Database 10G PL/SQL Programming	1	475.00
F	REP	0070486808	9780070486805	URMAN	Oracle 9i PL/SQL Programming (With CD)	1	425.00
F	REP	0070411816	9780070411814	URMAN	Oracle 8i: Advanced PL/SQL Programming (with CD)	1	485.00
F	REP	0070495063	9780070495067	VELPURI	Oracle OCP Oracle 9i Database: Fundamentals II Exam Guide (With CD)	1	425.00
F	REP	0070607680	9780070607682	WATSON	Oracle Database 10g OCP Certification All-In-One Exam Guide (With CD)	1	625.00
F	REP	0070607923	9780070607927	WHALEN	Oracle Database 10g Linux Administration Handbook	1	495.00
F	REP	007065851X	9780070658509	ZAPAR	Oracle Collaboration Suite Handbook	1	495.00
STRUCTURED QUERY LANGUAGE (SQL)							
F	REP	0070528500	9780070528505	GROFF	SQL: The Complete Reference (With CD)	2	550.00
EZ	PUB	007462184X	9780074621844	KISHORE & NAIK	SQL for Professionals	1	225.00
EZ	PUB	0074637088	9780074637081	LEON	SQL: A Complete Reference (With Diskette)	1	375.00
F	REP	0070611114	9780070611115	OPPEL	SQL Demystified	1	325.00
F	REP	0070599165	9780070599161	OTEY	Microsoft SQL Server 2005 New Features	1	350.00
DICTIONARIES							
F1	REP	0070597928	9780070597921	McGRAW-HILL	McGraw-Hill Dictionary of Computing & Communications	1	275.00
EMBEDDED SYSTEMS							
EZ	PUB	0070482845	9780070482845	IYER & GUPTA	Embedded Realtime Systems Programming	1	325.00
ENTERPRISE RESOURCE PLANNING (ERP)							
SAP R/3							
F	REP	0070421307	9780070421301	GHOSH	SAP Project Management (With CD)	1	650.00
F	REP	0070634807	9780070634800	HERNANDEZ	SAP R/3 HANDBOOK, 3/e	3	595.00
F	REP	0074631691	9780074631690	HOFFMAN	Writing SAP ABAP/4 Programs (Book Only)	1	325.00
F	REP	0070587507	9780070587502	KASTURI	SAP R/3 ALE & EDI Technologies (With CD)	1	395.00
F	REP	0074639447	9780074639443	WILLIAMS	Implementing SAP R/3 Sales & Distribution	1	425.00
HARDWARE							
F	REP	0070473676	9780070473676	BIGELOW	Troubleshooting, Maintaining & Repairing PCs (With CD)	5	695.00
F	REP	0070447355	9780070447363	GILSTER	PC Hardware: A Beginner's Guide	1	425.00
E3C	PUB	0070482851	9780070482869	GOVINDARAJALU	IBM PC and Clones: Hardware, Troubleshooting and Maintenance (Book Only)	2	495.00
E3C	PUR	0070483116	9780070483118	GOVINDARAJALU	IBM PC and Clones: Hardware, Troubleshooting and Maintenance (Book + CD)	2	625.00
F	REP	0070534551	9780070534551	MEYERS	Introduction to PC Hardware and Troubleshooting	1	395.00
F	REP	0070436061	9780070436060	ZACKER	PC Hardware: The Complete Reference (With CD)	1	525.00
INTERNET TECHNOLOGIES							
HYPER TEXT MARKUP LANGUAGE (HTML)							
F	REP	0070499217	9780070499324	JAMSA	HTML & Web Design: Tips & Techniques	1	425.00
F	REP	0070582815	9780070582811	POWELL	HTML & XHTML: The Complete Reference	4	525.00

DISCOUNT CLASS	PUB/R EP	10-digit ISBN	13-digit ISBN	AUTHOR	TITLE	Edition	Price (Rs.)
F	REP	0070636494	9780070636491	WILLARD	HTML: A Beginner's Guide	3	495.00
INTERNET							
F	REP	0074631624	9780074631621	HAHN	The Internet Complete Reference	1	425.00
F	REP	0070598657	9780070598652	HOFSTETTER	Internet Technologies at Work	1	495.00
F1	REP	0070601267	9780070601260	WILLIAMS	Embedded Internet Design	1	295.00
F	REP	0070486999	9780070486997	YOUNG	Internet: The Complete Reference	2	425.00
F	REP	0074639811	9780074639818	YOUNG	Internet: The Complete Reference: Millenium Edition	1	475.00
INTERNET PROTOCOL							
F	REP	0070636931	9780070636934	DAWSON	IP Location	1	475.00
F	REP	0070445230	9780070445239	LONG	IP Network Design	1	325.00
MICROSOFT OFFICE FRONTPAGE 2003							
F	REP	0070584028	9780070584020	MATTHEWS	Microsoft Office Frontpage 2003: The Complete Reference	1	550.00
IT & CAREER							
E2	PUB	007060052X	9780070600522	BALASUBRAMANIAM	Cracking the IT Interview	1	315.00
IT PROJECT MANAGEMENT							
E2	PUB	0070635455	9780070635456	BABU	Offshoring IT Services	1	325.00
F	REP	0070593884	9780070593886	PHILLIPS	IT Project Management: On Track from Start to Finish (With CD)	2	550.00
MAINFRAME COMPUTING							
CICS							
F	REP	0070601127	9780070601123	CROWNHART	CICS Application Design	1	275.00
F1	REP	0070486360	9780070486362	KAGEYAMA	CICS Handbook	1	395.00
F	REP	0070601100	9780070601109	LE BERT	CICS Essentials for Application Developers and Programmers	1	395.00
F	REP	0070601119	9780070601116	WIPFLER	Distributed Processing in the CICS Environment	1	395.00
IBM WEBSHERE							
F	REP	0070412383	9780070412385	BEN-NATAN	IBM: Websphere Starter Kit (With CD)	1	495.00
MICROCONTROLLERS & MICROPROCESSORS							
F	REP	0070606277	9780070606272	HINTZ	Microcontrollers	1	325.00
F1	REP	0070421404	9780070421400	PREDKO	Programming & Customizing the 8051 Microcontroller (With CD)	1	395.00
F	REP	007059841X	9780070598416	TURLEY	Advanced 80386 Programming Techniques	1	295.00
MICROSOFT OFFICE PACKAGES							
F	REP	0074632671	9780074632673	MANSFIELD	Working in Microsoft Office	1	475.00
F	REP	0070582998	9780070582996	KETTELL	Microsoft Office 2003: The Complete Reference	1	595.00
F	REP	0070447233	9780070447233	NELSON	Office XP: The Complete Reference (With CD)	1	650.00
MICROSOFT ACCESS							
F	REP	0070599068	9780070599062	ANDERSON	Microsoft Access 2003: The Complete Reference (With CD)	1	675.00
MICROSOFT EXCEL							
F	REP	0070647674	9780070647671	HART-DAVIS	How to Do Everything with Microsoft Office Excel 2007	1	495.00
F	REP	0070447071	9780070447073	IVENS	Excel 2002: The Complete Reference	1	550.00
MICROSOFT OFFICE PROJECT							
F	REP	007065848X	9780070658486	MARMEL	How To Do Everything with Microsoft Office Project 2007	1	450.00
MULTIMEDIA & GRAPHICS							

DISCOUNT CLASS	PUB/R EP	10-digit ISBN	13-digit ISBN	AUTHOR	TITLE	Edition	Price (Rs.)
F1	REP	0070599890	9780070599895	AVGERAKIS	Digital Animation Bible (With CD)	1	595.00
F	REP	0070636818	9780070636811	VAUGHAN	Multimedia: Making it Work (With CD)	7	395.00
3DS MAX 6							
F	REP	0070587159	9780070587151	FOX	3DS Max 6 Animation: CG Filmmaking from Concept to Completion (With CD)	1	595.00
DREAMWEAVER							
F	REP	0070531293	9780070531291	WEST	Dreamweaver MX: A Beginner's Guide	1	450.00
F	REP	0070530351	9780070530355	WEST	Dreamweaver MX: The Complete Reference	1	525.00
MACROMEDIA FLASH							
F	REP	0070593868	9780070593862	UNDERDAHL	Macromedia Flash MX 2004: The Complete Reference, (With CD)	2	595.00
MAYA							
F	REP	007059029X	9780070590298	MEADE	MAYA 6: The Complete Reference (With CD)	1	595.00
NETWORKING & COMMUNICATIONS							
F	REP	0070647666	9780070647664	BATES	Voice & Data Communication Handbook	5	595.00
F	REP	0070472394	9780070472396	GORALSKI	Optical Networking & WDM	1	350.00
F	REP	0070607915	9780070607910	HALLBERG	Networking: A Beginner's Guide	4	425.00
E2	PUB	0070583544	9780070583542	KASERA	Communication Networks	1	330.00
F	REP	007044742X	9780070447424	SHELDON	Encyclopedia of Networking and Telecommunications (With CD)	1	795.00
F	REP	0070530416	9780070530416	SPOHN	Data Network Design	3	525.00
F	REP	0070402345	9780070402348	TAYLOR	Networking Handbook (With CD)	1	575.00
F	REP	0070474168	9780070474161	ZACKER	Networking: The Complete Reference	1	650.00
F	REP	0070412677	9780070412675	ZACKER	Upgrading & Troubleshooting Networks: The Complete Reference	1	575.00
BLUETOOTH							
F	REP	0070439494	9780070439498	MULLER	Bluetooth Demystified	1	395.00
CISCO NETWORKS							
F	REP	0070528896	9780070528895	HILL	CISCO: The Complete Reference	1	650.00
F	REP	0070589739	9780070589735	VELTE	CISCO: A Beginner's Guide	3	495.00
MOBILE COMPUTING							
F1	REP	0070603642	9780070603646	ADELSTEIN	Fundamentals of Mobile & Pervasive Computing	1	350.00
E2	PUB	0070588074	9780070588073	TALUKDER	Mobile Computing: Technology, Application & Service Creation	1	495.00
RFID							
F	REP	0070636478	9780070636477	BROWN	RFID Implementation	1	495.00
STORAGE NETWORKS							
F	REP	0070532923	9780070532922	SPALDING	Storage Networks: The Complete Reference	1	550.00
VOICE OVER IP (VOIP)							
F1	REP	0070603235	9780070603233	COLLINS	Carrier Grade Voice Over IP	2	475.00
F1	REP	007060715X	9780070607156	SHEPARD	Voice Over IP Crash Course	1	295.00
WIRELESS NETWORKS							
F1	REP	0070598681	9780070598683	ASPINWALL	Installing, Troubleshooting, and Repairing Wireless Networks (With CD)	1	425.00
F	REP	0070636923	9780070636927	SMITH	3G Wireless Networks	2	495.00
OPERATING SYSTEMS							
FREEBSD							
F	REP	0070532788	9780070532786	SMITH	FREEBSD: The Complete Reference, (With CD)	1	695.00
LINUX							
F	REP	0070528497	9780070528499	PETERSEN	LINUX: The Complete Reference (With CD)	5	595.00
F	REP	0070611181	9780070611184	SHAH	Linux Administration: A Beginner's Guide (With CD)	4	525.00

DISCOUNT CLASS	PUB/R EP	10-digit ISBN	13-digit ISBN	AUTHOR	TITLE	Edition	Price (Rs.)
RED HAT LINUX							
F	REP	0070618364	9780070618367	PETERSEN	Red Hat Enterprise Linux & Fedora Core 4: The Complete Reference (With DVD)	1	695.00
SOLARIS							
F	REP	0070599661	9780070599666	WATTERS	Solaris 10: The Complete Reference	1	595.00
UNIX							
F	REP	0070658366	9780070658363	ROSEN	UNIX: The Complete Reference	2	595.00
WINDOWS							
F	REP	0070540810	9780070540811	IVENS	Windows Server 2003: The Complete Reference	1	675.00
F	REP	0070540683	9780070540682	MATTHEWS	Windows Server 2003: A Beginner's Guide	1	425.00
F	REP	007463755X	9780074637555	SCHILD	Windows 2000: Programming from the Ground Up	1	550.00
F	REP	0070658501	9780070658509	SIMMONS	How To Do Everything with Windows Vista	1	495.00
PROGRAMMING LANGUAGES							
F	REP	0070472777	9780070472778	HAIGH	Object Oriented Analysis & Design	1	395.00
E2	PUB	0070599319	9780070599314	SUTARWAALA	Good Programming Skills and Practices	1	250.00
C							
F	REP	0070411872	9780070411838	SCHILD	C: The Complete Reference	4	450.00
C#							
F	REP	0070611394	9780070611399	SCHILD	C# 2.0: The Complete Reference	1	525.00
F	REP	0070486751	9780070486751	SCHILD	C#: The Complete Reference	1	495.00
F	REP	0070499209	9780070499201	WRIGHT	C#: Tips and Techniques	1	375.00
C++							
F	REP	007058866X	9780070588660	KENT	C++ Demystified: A Self-Teaching Guide	1	295.00
E2	PUB	007048306X	9780070483064	KHANNA	C++ Power Packed: Tips and Techniques for Practicing Programmers	1	250.00
F	REP	007053246X	9780070532465	SCHILD	C++: The Complete Reference	4	465.00
F	REP	0070486735	9780070486737	SCHILD	C++: A Beginner's Guide	1	295.00
F	REP	007463870X	9780074638705	SCHILD	Teach Yourself C++	1	375.00
F	REP	0070530858	9780070530850	SMILEY	Learn to Program with C++	1	275.00
J2EE							
F	REP	0070529124	9780070529120	KEOGH	J2EE: The Complete Reference	1	525.00
E2	PUB	0070621632	9780070621633	KUMAR	J2EE Architecture (with a companion CD)	1	475.00
J2ME							
F	REP	0070534152	9780070534155	KEOGH	J2ME: The Complete Reference	1	475.00
JAVA							
F	REP	0074632906	9780074632901	NAUGHTON	JAVA Handbook	1	325.00
F	REP	007063677X	9780070636774	SCHILD	Java: The Complete Reference	7	450.00
F	REP	0070495432	9780070495432	SCHILD	JAVA 2: The Complete Reference	5	435.00
F	REP	0070530653	9780070530652	SMILEY	Learn to Program with JAVA	1	295.00
F	REP	0074639757	9780074639757	VENNERS	Inside the JAVA 2 Virtual Machine	1	595.00
F1	REP	0070603650	9780070603653	WISE	Hands-on AI with Java: Smart Gaming, Robotics & More	1	325.00
F	REP	0070601283	9780070601284	SCHILD	JAVA: A Beginner's Guide	3	395.00
JAVA SCRIPT							
F	REP	0070603472	9780070603479	KEOGH	JavaScript Demystified: A Self Teaching Guide	1	325.00
F	REP	0070590273	9780070590274	POWELL	JavaScript: The Complete Reference	2	595.00
JAVA SERVER FACES (JSF)							
F	REP	007058687X	9780070586871	KURNIAWAN	JavaServer Faces Programming	1	425.00
F	REP	0070636427	9780070636422	SCHALK	JavaServer Faces: The Complete Reference	1	525.00
JAVASERVER PAGES (JSP)							

DISCOUNT CLASS	PUB/R EP	10-digit ISBN	13-digit ISBN	AUTHOR	TITLE	Edition	Price (Rs.)
F	REP	0070531412	9780070531413	HANNA	JSP 2.0: The Complete Reference	1	525.00
MICROSOFT FOUNDATION CLASSES (MFC)							
F	REP	0074639927	9780074639924	SCHILDT	MFC Programming from the Ground Up	2	385.00
PRACTICAL EXTRACTION & REPORTING LANGUAGE (PERL)							
E2	PUB	0070474478	9780070474475	BAL	Perl Programming for Bioinformatics	1	595.00
F	REP	0070444803	9780070444805	BROWN	PERL: The Complete Reference	2	695.00
STRUTS							
F	REP	0070658455	9780070658455	HOLMES	Struts: The Complete Reference	1	525.00
	RCP	007059404X	9780070594043	HOLZNER	Struts: Essential Skills	1	395.00
SWING							
F	REP	0070636486	9780070636484	SCHILDT	Swing: A Beginner's Guide	1	495.00
VISUAL BASIC							
F1	REP	0074635212	9780074635216	BRADLEY	Programming in Visual Basic 6.0 (With CD)	1	495.00
F	REP	0074635573	9780074635575	CORNELL	Visual Basic 6: From the Ground Up*	1	425.00
F	REP	0074636669	9780074636664	JERKE	Visual Basic 6: The Complete Reference (With CD)	1	450.00
F	REP	0070635005	9780070635005	KENT	Visual Basic 2005 Demystified	1	325.00
F	REP	0070619867	9780070619869	PETRUSHA	Visual Basic 2005: The Complete Reference	1	495.00
F	REP	0074639617	9780074639610	WARNER	Teach Yourself Visual Basic: 6	1	275.00
VISUAL BASIC.NET							
F1	REP	0070529094	9780070529090	BRADLEY	Programming in Visual Basic.Net (With CD)	4	450.00
F	REP	0070495114	9780070495111	SHAPIRO	Visual Basic.Net: The Complete Reference	1	525.00
VISUAL C#							
F	REP	007063503X	9780070635036	KENT	Visual C# 2005 Demystified	1	325.00
VISUAL C++							
F	REP	0074637290	9780074637296	MUELLER	Visual C++ 6 From the Ground Up	2	375.00
F	REP	0074638106	9780074638101	PAPPAS	Visual C++6: The Complete Reference	1	495.00
VISUAL C++.NET							
F	REP	0070495327	9780070495326	PAPPAS	Visual C++.Net: The Complete Reference	1	595.00
SECURITY							
F	REP	0070647682	9780070647688	DAVIS	IT Auditing: Using Controls to Protect Information Assets	1	495.00
F	REP	0070599726	9780070599727	HARRIS	Gray Hat Hacking: The Ethical Hacker's Handbook	1	475.00
F	REP	0070586896	9780070586895	SHEMA	Anti-Hacker Tool Kit (With CD)	2	650.00
COMPUTER FORENSICS							
F	REP	0070618461	9780070618466	MANDIA	Incident Response & Computer Forensics	2	495.00
F	REP	0070618917	9780070618916	POLLINO	Hacker's Challenge 3: 20 Brand New Forensic Scenarios & Solutions	3	425.00
FIREWALLS							
F	REP	0070583110	9780070583115	STRASSBERG	Firewalls: The Complete Reference	1	595.00
NETWORK SECURITY							
F	REP	0070586713	9780070586710	BRAGG	Network Security: The Complete Reference	1	575.00
F	REP	0070647658	9780070647657	ENDLER	Hacking Exposed VoIP: Voice Over IP Security Secrets & Solutions	1	495.00
F	REP	007061606X	9780070616066	ENDORF	Intrusion Detection and Prevention	1	495.00
F	REP	0070599173	9780070599178	MALLERY	Hardening Network Security	1	525.00
F	REP	0070607907	9780070607903	McCLURE & SCAMBRAY	Hacking Exposed: Network Security Secrets and Solutions (With DVD)	5	525.00
F	REP	0070607176	9780070607170	OPPLEMAN	Extreme Exploits: Advance Defences Against Hardcore Hacks	1	395.00
F	REP	0070635323	9780070635326	VLADIMOROV	Hacking Exposed Cisco Networks	1	595.00
OPERATING SYSTEM SECURITY							

DISCOUNT CLASS	PUB/R EP	10-digit ISBN	13-digit ISBN	AUTHOR	TITLE	Edition	Price (Rs.)
F	REP	0070540691	9780070540699	HATCH	Hacking Linux Exposed: Linux Security Secrets & Solutions	2	495.00
F	REP	0070587256	9780070587250	SCAMBRAY	Hacking Exposed Windows Server 2008	1	450.00
SOFTWARE SECURITY							
F	REP	0070607168	9780070607163	HOWARD	19 Deadly Sins of Software Security	1	295.00
F1	REP	0070603596	9780070603592	SLADE	Software Forensics	1	295.00
F	REP	0070530408	9780070530409	TAYLOR	Hacking Exposed J2EE & JAVA: Developing Secure Applications with Java	1	395.00
WEB SECURITY							
F	REP	0070619808	9780070619807	SCAMBRAY	Hacking Exposed Web Applications	2	475.00
WIRELESS SECURITY							
F1	REP	0070618844	9780070618845	WILSON & WILSON	Wireless Security: Models, Threats and Solutions	1	495.00
SOFTWARE ENGINEERING							
F	REP	0070603227	9780070603226	JONES	Estimating Software Costs	1	425.00
E2	PUB	0070403120	9780070403120	KISHORE & NAIK	Software Requirements and Estimation	1	395.00
E2	PUB	0070598975	9780070598973	RAMESH	Managing Global Software Projects (Softcover)	1	325.00
E2	PUB	0070583528	9780070583528	RAJANI & OAK	Software Testing: Methodologies, Tools and Processes	1	385.00
F	REP	0070635145	9780070635142	KIMMEL	UML Demystified	1	295.00
F	REP	0070531404	9780070531406	ROFF	UML: A Beginner's Guide	1	295.00
F1	REP	0070603197	9780070603196	MUSA	Software Reliability Engineering: More Reliable Software Faster and Cheaper	2	395.00
E2	PUB	007048340X	9780070483408	RADICE	Software Inspections: How to cut costs, improve quality and shorten time cycles of software projects	1	395.00
E2	PUB	0070483450	9780070483453	RAMESH	Software Maintenance	1	595.00
E2	PUB	0070588031	9780070588035	RAMESH	CBT on Managing Global Software Projects	1	1990.00
E2	PUB	0070601143	9780070601147	KISHORE & NAIK	ISO 9001: 2000 for Software Organizations (Softcover)	1	375.00
WEB DEVELOPMENT TECHNOLOGIES							
E2	PUB	0070593787	9780070593787	KUMAR & SUBRAMANYA	An Introduction to Web Services (Softcover)	1	375.00
ACTIVE SERVER PAGES (ASP)							
F	REP	0070436231	9780070436237	MERCER	ASP 3.0: A Beginner's Guide	1	350.00
F	REP	0070499179	9780070499171	BUCZEK	ASP.NET: Developer's Guide	1	525.00
F	REP	0070529205	9780070529205	BUCZEK	Instant ASP.NET Applications (With CD)	1	525.00
F	REP	0070607893	9780070607897	KEOGH	ASP.NET 2.0 Demystified	1	295.00
F	REP	007049536X	9780070495364	MACDONALD	ASP.NET: The Complete Reference	1	550.00
F	REP	0070495343	9780070495340	MERCER	ASP.NET: A Beginner's Guide	1	395.00
WEB DESIGN							
F	REP	0070582521	9780070582521	POWELL	Web Design: The Complete Reference	2	525.00
EXTENSIBLE MARKUP LANGUAGE (XML)							
F	REP	0070498970	9780070498976	HILLBORG	Wireless XML Developer's Guide	1	325.00
F	REP	0070607885	9780070607880	KEOGH	XML Demystified	1	295.00
F	REP	007044725X	9780070447257	WILLIAMSON	XML: The Complete Reference	1	595.00