Appendix-D-Index

D. Index

#define ... 365 #ifdef ... 365 #ifndef ... 365 #include ... 87 :: See scope resolution operator -> ... 77 abstract class ... 269, 365 abstracting ... 225 access modifier ... 117, 136, 365 accessor ... 144 address-of operator ... 365 aggregate data-type ... 71 aggregation ... 219 argc ... 362 argv ... 362 array ... 17, 360, 366 arrow operator ... 366 assert ... 55, 359, 366 association ... 219 base class ... 237, 366 binding ... 229, 258, 366 bitwise operator ... 366 bool ... 4,366 Boolean operators ... 366 callback ... 289, 290, 367 callee ... 290, 367 caller ... 290, 367 cast ... 5 casting ... 367 catch ... 65 catch-all ... 65 cctype ... 22 char ... 4, 367 child class ... 237 chmod ... 90 cin ... 10, 359 cin.clear() ... 54 cin.fail() ... 53 cin.ignore() ... 54 class ... 115, 135, 367 class template ... 310,368 client ... 98,368 cohesion ... 72, 86, 115, 367 functions ... 14 coincidental ... 15 comments ... 355, 356, 367 communicational ... 14 composition ... 218, 219, 368 conditional expression ... 7, 362, 367 const ... 4,146 const_cast ... 5 constructor ... 151, 152, 241, 368 copy ... 154 default ... 152 non-default ... 153 container ... 341,368 continuous data ... 121 coupling ... 86, 115, 367 cout ... 9, 359, 368 cstdlib ... 22 cstring ... 22 data ... 120 data abstraction ... 115 default parameters ... 103, 368 delete ... 7, 362, 370 dependency ... 219 dereference operator ... 370 derivation ... 218,370 derived class ... 237, 370 design document ... 370 Design Document Algorithms ... 33,40 Data Structure ... 42 Data Structures ... 33 Design Overview ... 33, 36 Error Handling ... 33, 44, 48 File Format ... 33, 43 Interface Design ... 33, 37 Problem Description ... 33, 35 Structure Chart ... 33, 38 destructor ... 151, 156, 370 discrete data ... 121 double ... 4,370 downcasting ... 261, 371 dynamic_cast ... 5 early binding ... 229, 371 EID ... 63, 371 encapsulation ... 114 eof ... 371 error flags ... 371 error handling ... 371 escape sequences ... 371 expression ... 371 extraction operator ... 7, 176, 373

file I/O 43, 50
flags 62
float 4
friend 192, 193, 194, 373
fstream 10, 373
function pointer 107, 128, 230, 373
function signature 99, 107, 305, 373
function template 302, 303, 373
functional 14
g++ 89, 90
generic algorithms 281, 302
generic data-structures 281, 310
getline 10, 373
getter ..... 122, *See* accessor
has-a 218, 219
header file 105, 137, 145, 373
if 359
ifstream 360, 374
implementation 227
implementation file 87
infix 174
information hiding 115
inheritance 218, 374
inheritance indicators 250
inline 105, 145, 374
insertion operator 7, 175, 374
instantiate 136
int 4, 374
interface 227
interval data 121

modulus ... 8,379 multi-dimensional arrays ... 17, 362, 377 mutator ... 144,377 new ... 7,362,371,377 node ... 317,377 null ... 377 NULL ... 377 object ... 115,377 object file ... 90,377 ofstream ... 360,378 operator ... 99, 173, 201, 378 -- decrement ... 181, 182, 186, 188, 196, 202, 212

- negative ... 183, 186, 188, 196, 202
- subtraction ... 177, 186, 188, 196, 202, 212 ! not ... 183, 186, 188, 196, 202 != not equals ... 184, 186, 188, 196, 202, 212 % modulus ... 177, 186, 188, 196, 202 && and ... 207, 213 () function call ... 206, 212
- multiplication ... 177, 186, 188, 196, 202
- = multiply by ... 179, 186, 188, 196, 202 / division ... 177, 186, 188, 196, 202 /= divide by ... 179, 186, 188, 196, 202 [] square bracket ... 205,213 || or ... 207, 213
- addition ... 177, 186, 188, 196, 202, 208- 212
  - increment... 181–188, 196, 202, 209, 211-212 + = add onto ... 179, 186-196, 202, 208, 211-213 < less than ... 184, 186, 188, 196, 202, 212 << insertion... 175, 186-196, 202, 212, 243, 253 <= less than or equal... 184-188, 196, 202, 212 = assignment ... 204, 212, 213 -= subtract from ... 179, 186, 188, 196, 202, 212 == equivalence ... 184-196, 202, 209, 212 > greater than ... 184, 186, 188, 196, 202, 212 >= greater than or equal ... 184-188, 196, 202, 212 >> extraction... 176-188, 196, 202, 212, 243, 253 parent class ... 237 pass-by-pointer. ... 378 pass-by-reference ... 16,378 pass-by-value ... 16,378 pointer ... 378 arithmetic ... 20 declare ... 20 polymorphism ... 378 private ... 117, 136, 378 procedural ... 14 properties ... 120 protected ... 248,380 prototype ... 103,380 pseudocode ... 40,380 public ... 117, 136, 380 pure virtual function ... 269,270 random access ... 318

redefining ... 242 reinterpret_cast ... 5 scope ... 380 scope resolution operator ... 138,380 separate compilation ... 380 sequential ... 14 setf( ) ... 359 setter ... 122, See mutator setw( ) ... 9 short ... 4 sizeof() ... 7,380 slicing problem ... 261, 262, 381 source file ... 87,137 standard template library ... 341 static ... 164, 165, 381 static_cast ... 5 STL ... 381, See standard template library strings ... 33, 360, 381 c-strings ... 368 struct ... 74 structure ... 381 structure chart ... 38,381 structure tag ... 381 styleChecker ... 383 switch ... 362 tabs ... 383 TAR ... 92, 383 template ... 281 template prefix ... 303, 311 temporal ... 14 this ... 140,383 throw ... 64,383 throw list ... 383 try ... 64,383 type parameter ... 303, 311 UML ... 384 UML class diagram ... 225, 384 unsigned ... 4 upcasting ... 262, 384 variable ... 384 variant ... 222, 384 vector ... 23, 342, 343, 344 virtual function ... 258, 384 void pointer ... 289, 295, 384 v-table ... 127, 129, 230, 384

invariant 222, 374
iomanip 9, 376
iostream 9, 376
is-a 218, 220
iterator 331, 376
iterators 330
iterator 374
late binding 229, 376
linked list 317, 376
list 345
local variable 376
logical 15
long 4
long double 4
loop
do-while 13, 360, 376
for 13, 360, 373
while 12, 360, 384
makefile 91, 137, 376
map 347, 348, 349
member function 115, 117
member variable 115, 376
method 115, 117
modularization 115