```
1 #include <iostream>
 2 #include <memory>//for pointers
 3 #include "Mage.h"
 4 #include "Rogue.h"
 5 #include "Warrior.h"
 6 using namespace std;
8 int main()
9 {
10
        int choice;//variable for choice to heal or attack
        cout << "You are now Knight Timmy, a ferocious Warrior." << endl;</pre>
11
        cout << "A Mage named Wizard Gandolfo appears and is ready to battle!" <<</pre>
12
          endl;
13
        cout << endl;</pre>
14
        //players with overwritten name, health, armor with the class it belongs to
15
        shared_ptr<Warrior> Knight_Timmy = make_shared<Warrior>("Knight Timmy", 20,
        shared ptr<Mage> Wizard Gandolfo = make shared<Mage>("Wizard Gandolfo", 15,
16
          2);
        shared ptr<Rogue> Assassin Jim = make shared<Rogue>("Assassin Jim", 10, 3);
17
18
        Knight_Timmy->printStats();//prints stats of the player(user)
19
20
        cout << endl;</pre>
21
        Wizard Gandolfo->printStats();//prints stats of enemy 1(mage)
22
        cout << endl;</pre>
23
        while (Knight_Timmy->getHealth() > 0)
24
        {
25
            do//do-while runs code as long as enemy player is above 0
26
27
                cout << "You rolled one dice (1-20): Initiative score of " <<</pre>
                  Knight_Timmy->getInitRoll();//gets a value between 1-20
                cout << " + a speed modifier of " << Knight_Timmy-</pre>
28
                  >getInitiativeModifier();//gets modifier
29
                cout << " for a total of " << Knight_Timmy->initiativeRoll() <<</pre>
                  endl;//calculates both numbers for a total roll
30
31
                cout << "The Mage rolled one dice (1-20): Initiative score of " <<</pre>
                  Wizard Gandolfo->initiativeRoll();
                cout << " and has no bonus speed modifier" << endl;//rolls 1-20 but</pre>
32
                  has no modifier so the roll is final
33
                cout << endl;</pre>
                //if the user rolls a higher number, then it will go first and choose ₹
                   between attack and heal
                if (Knight_Timmy->initiativeRoll() > Wizard_Gandolfo->initiativeRoll >
35
                  ())
36
                {
37
                    Knight_Timmy->move();//user chooses from the two option
38
                    cin >> choice;//user input
39
                    if (choice == 1)//option to attack
40
                    {
41
                         cout << endl;</pre>
42
                         cout << "You rolled one dice(1-6): Damage score of " <<</pre>
```

```
Knight_Timmy->getAttack();//gets a value from 1-6
                         cout << " + a strength modifier of " << Knight_Timmy-</pre>
43
                          >getAttackModifer() << " for a total of ";//gets modifier and >>
                           calculates total
44
                         cout << Knight_Timmy->makeAttack();//user atttacks the mage
                          for the total attack damage
45
                         cout << endl;</pre>
                         Wizard_Gandolfo->receiveDamage(Knight_Timmy->makeAttack());// >
46
                         the mage receives the damage from the player
                         cout << "Wizard Gandolfo's Move:" << endl;</pre>
47
                         cout << "Wizard Gandolfo rolled one dice(1-4): Damage score</pre>
48
                         of " << Wizard Gandolfo->getAttack();//gets a values from 1-4
                         cout << " + an intellect modifier of " << Wizard_Gandolfo-</pre>
49
                          >getAttackModifier() << " for a total of ";//gets modifier</pre>
                          and calculates total
50
                         cout << Wizard_Gandolfo->makeAttack();//mage attacks the user →
                           for the total damage dealt
51
                         cout << endl;</pre>
52
                         Knight_Timmy->receiveDamage(Wizard_Gandolfo->makeAttack());// >
                          user receives the damage from the mage
53
                         cout << endl << endl;</pre>
54
                     }
55
                     else if (choice == 2)//option to heal
56
57
                         cout << endl;</pre>
58
                         cout << "You heal yourself for " << Knight_Timmy->getHeal()
                          << " hit points!" << endl;//user heals for 2-10 values</pre>
                         cout << "Total HP now at: " << Knight_Timmy->getNewHealth()
59
                          << endl << endl;//calculates new health from heal and current>
                           health
                     }
60
                }//if the mage rolls a higher number than the user, then the mage
61
                   moves first and attacks
62
                else if (Knight_Timmy->initiativeRoll() < Wizard_Gandolfo-</pre>
                   >initiativeRoll())
63
                {
64
                     cout << endl;</pre>
65
                     cout << "Wizard Gandolfo's Move:" << endl;</pre>
66
                     cout << "Wizard Gandolfo rolled one dice(1-4): Damage score of " →</pre>
                       << Wizard Gandolfo->getAttack();//gets value from 1-4
                     cout << " + an intellect modifier of " << Wizard_Gandolfo-</pre>
67
                       >getAttackModifier() << " for a total of ";//gets modifier and >
                       calculates total
68
                     cout << Wizard_Gandolfo->makeAttack();//makes attack for the
                       calculated damage
69
                     cout << endl;</pre>
70
                     Knight Timmy->receiveDamage(Wizard Gandolfo->makeAttack());//user ➤
                        receives the damage from the mage's attack
71
                     cout << endl;</pre>
72
                     Knight_Timmy->move();//player chooses it option of heal or attack
73
                     cin >> choice;
74
                     if (choice == 1)//player attacks
```

```
75
                      {
 76
                          cout << "You rolled one dice(1-6): Damage score of " <<</pre>
                                                                                            P
                          Knight Timmy->getAttack();//gets value from 1-6
 77
                          cout << " + a strength modifier of " << Knight_Timmy-</pre>
                           >getAttackModifer() << " for a total of ";//gets modifier and?
                            calculates total
 78
                          cout << Knight_Timmy->makeAttack();//player attacks the enemy →
                            for total calculated damage
 79
                          cout << endl;</pre>
 80
                          Wizard_Gandolfo->receiveDamage(Knight_Timmy->makeAttack());// >
                          mage receives damage from the user
 81
                          cout << endl << endl;</pre>
 82
                      }
 83
                      else if (choice == 2)//player heals
 84
 85
                          cout << endl;</pre>
                          cout << "You heal yourself for " << Knight_Timmy->getHeal()
 86
                           << " hit points!" << endl;//user heals for 2-10 values</pre>
                          cout << "Total HP now at: " << Knight Timmy->getNewHealth()
 87
                           << endl << endl;//calculates new health from heal and current>
                           health
 88
                      }
                 }//if the rolls are equal to each other then they roll again
 89
 90
                 else if (Knight_Timmy->initiativeRoll() == Wizard_Gandolfo-
                                                                                            P
                    >initiativeRoll())
 91
 92
                      cout << "Rolling again..." << endl;</pre>
                      cout << "You rolled one dice (1-20): Initiative score of " <</pre>
 93
                        Knight Timmy->getInitRoll();//gets a value between 1-20
                      cout << " + a speed modifier of " << Knight_Timmy-</pre>
 94
                        >getInitiativeModifier();//gets modifier
 95
                      cout << " for a total of " << Knight_Timmy->initiativeRoll() <<</pre>
                        endl;//calculates both numbers for a total roll
 96
 97
                      cout << "The Mage rolled one dice (1-20): Initiative score of "</pre>
                        << Wizard Gandolfo->initiativeRoll();
 98
                      cout << " and has no bonus speed modifier" << endl;//rolls 1-20</pre>
                        but has no modifier so the roll is final
 99
                      cout << endl;</pre>
100
             } while (Wizard_Gandolfo->getHealth() > 0);//code executes as long as
101
               their health is over 0
102
103
             if (Wizard_Gandolfo->getHealth() < 0)//when mage reaches below 0 health, >
               the fight is over and it will fight a new enemy
104
             {
105
                 Knight_Timmy = make_shared<\u20farrior>("Knight Timmy", 20, 5);
106
                 cout << "The Mage has been slain!" << endl << endl;</pre>
107
                 cout << "A magical fairy visits ou, health has been reset to 20!" << →
                    endl;
                 cout << "A Rogue named Assassin Jim appears and is ready to battle!" ➤
108
                    << endl << endl;</pre>
```

```
Knight_Timmy->printStats();//prints reset stats of the user
109
                  cout << endl;</pre>
110
                  Assassin Jim->printStats();//prints enemy 2 stats(rogue)
111
112
                  cout << endl;</pre>
113
             }
114
             do
115
             {
116
117
                  cout << "You rolled one dice (1-20): Initiative score of " <<</pre>
                    Knight_Timmy->getInitRoll();//gets a value from 1-20
                  cout << " + a speed modifier of " << Knight_Timmy-</pre>
118
                    >getInitiativeModifier();//gets modifier
119
                  cout << " for a total of " << Knight_Timmy->initiativeRoll() <<</pre>
                                                                                            P
                    endl;//calculates both numbers for a total roll
120
121
                  cout << "The Rogue rolled one dice (1-20): Initiative score of " <<</pre>
                    Assassin_Jim->getInitRoll();//gets a value from 1-20
                  cout << " + a speed modifier of " << Assassin Jim-
122
                    >getInitiativeModifier();//gets modifier
                  cout << " for a total of " << Assassin_Jim->initiativeRoll() <<</pre>
123
                    endl;//calculates both numbers for a total roll
124
                  //if user rolls a greater number than the rogue, then it chooses
                    between heal and attack
125
                  if (Knight_Timmy->initiativeRoll() > Assassin_Jim->initiativeRoll())
126
127
                      Knight_Timmy->move();//user chooses from heal or attack
128
                      cin >> choice;
129
                      if (choice == 1)//option to attack
130
                      {
131
                          cout << endl;</pre>
                          cout << "You rolled one dice(1-6): Damage score of " <<</pre>
132
                          Knight_Timmy->getAttack();//gets value from 1-6
                          cout << " + a strength modifier of " << Knight_Timmy-</pre>
133
                           >getAttackModifer() << " for a total of ";//gets modifier and?
                            calculates total
134
                          cout << Assassin Jim->makeAttack() << endl;//rogue makes</pre>
                           attack for total damage done
135
                          Assassin_Jim->getDodge();//50% chance for rogue to dodge the →
                          attack
                          if (Assassin Jim->getDodge() == 1)//50% to dodge
136
137
                              cout << endl << "Assassin Jim dodged the attack!" <<</pre>
138
                          endl;
139
                          else if (Assassin_Jim->getDodge() == 2)//50% to be attacked
140
141
                          {
142
                              cout << endl;</pre>
143
                              Assassin_Jim->receiveDamage(Knight_Timmy->makeAttack
                           ());//rogue receives damage
144
                              cout << "Assassin Jim's Move:" << endl;</pre>
                              cout << "Assassin Jim rolled two dice(1-4): Damage score →
145
                           of " << Assassin_Jim->getAttack();//gets values from 2-8
```

```
damage
146
                               cout << " + an agility modifier of " << Assassin_Jim-</pre>
                                                                                             P
                           >getAttackModifier() << " for a total of ";//gets modifier</pre>
                           value
147
                               cout << Assassin_Jim->makeAttack();//calculates total for →
                            its attack
148
                               cout << endl;</pre>
                               Knight_Timmy->receiveDamage(Assassin_Jim->makeAttack
149
                           ());//user receives damage from the rogue
150
                               cout << endl << endl;</pre>
151
                          }
152
153
                      else if (choice == 2)//option to heal
154
                      {
155
                          cout << endl;</pre>
                          cout << "You heal yourself for " << Knight_Timmy->getHeal()
156
                           << " hit points!" << endl;//gets heal value from 2-10</pre>
                          cout << "Total HP now at: " << Knight Timmy->getNewHealth()
157
                           << endl << endl;//adds generated health to current health</pre>
158
159
                  }//if rogue rolls a higher number than user, then it attacks first
160
                  else if (Knight_Timmy->initiativeRoll() < Assassin_Jim-</pre>
                    >initiativeRoll())
161
                  {
162
                      cout << endl;</pre>
163
                      cout << "Assassin Jim's Move:" << endl;</pre>
164
                      cout << "Assassin Jim rolled two dice(1-4): Damage score of " << →
                        Wizard_Gandolfo->getAttack();//attacks from 2-8
                      cout << " + an agility modifier of " << Wizard_Gandolfo-</pre>
165
                        >getAttackModifier() << " for a total of ";//gets modifier</pre>
                      cout << Wizard Gandolfo->makeAttack();//calculates total and
166
                        attacks user for total damage generated
167
                      cout << endl;</pre>
168
                      Knight_Timmy->receiveDamage(Assassin_Jim->makeAttack());//user
                        receives the damage from rogue
169
                      cout << endl;</pre>
170
                      Knight_Timmy->move();//user chooses from heal or attack
171
                      cin >> choice;
172
                      if (choice == 1)//option to attack
173
                          cout << "You rolled one dice(1-6): Damage score of " <<</pre>
174
                           Knight_Timmy->getAttack();//attacks from 1-6
                          cout << " + a strength modifier of " << Knight_Timmy-</pre>
175
                           >getAttackModifer() << " for a total of ";//gets modifier</pre>
                          cout << Assassin_Jim->makeAttack() << endl;//calculates and</pre>
176
                           attacks for total damage generated
177
                          Assassin Jim->getDodge();//rogue has 50% chance to Dodge
                           attack from user
178
                          if (Assassin_Jim->getDodge() == 1)//50% to Dodge
179
                               cout << endl << "Assassin Jim Dodged the attack!" <<</pre>
180
                           endl;
```

```
Source.cpp
                                                                                            6
181
182
                          else if (Assassin_Jim->getDodge() == 2)//50% chance to be
                                                                                            P
183
                          {
184
                              cout << endl;</pre>
185
                              Assassin_Jim->receiveDamage(Knight_Timmy->makeAttack
                                                                                            P
                           ());//receives damage from attack value generated
                              cout << "Assassin Jim's Move:" << endl;</pre>
186
187
                              cout << "Assassin Jim rolled two dice(1-4): Damage score →
                           of " << Assassin_Jim->getAttack();//gets values from 2-8
                              cout << " + an agility modifier of " << Assassin_Jim-</pre>
188
                           >getAttackModifier() << " for a total of ";//gets modifier</pre>
                              cout << Assassin_Jim->makeAttack();//calculates total
189
                           attack to give to user
190
                              cout << endl;</pre>
191
                              Knight_Timmy->receiveDamage(Assassin_Jim->makeAttack
                           ());//user receives damage from rogue
192
                              cout << endl << endl;</pre>
193
                          }
194
                      }
                      else if (choice == 2)
195
196
197
                          cout << endl;</pre>
198
                          cout << "You heal yourself for " << Knight_Timmy->getHeal()
                           << " hit points!" << endl;//gets heal values from 2-10</pre>
199
                          cout << "Total HP now at: " << Knight_Timmy->getNewHealth()
                           << endl << endl;//adds heal generated to current health</pre>
200
                      }
201
                  }
                  else if (Knight_Timmy->initiativeRoll() == Assassin_Jim-
202
                                                                                            P
                    >initiativeRoll())
203
                  {
                      cout << "You rolled one dice (1-20): Initiative score of " <</pre>
204
                        Knight Timmy->getInitRoll();//gets a value from 1-20
                      cout << " + a speed modifier of " << Knight_Timmy-</pre>
205
                        >getInitiativeModifier();//gets modifier
206
                      cout << " for a total of " << Knight_Timmy->initiativeRoll() <<</pre>
                        endl;//calculates both numbers for a total roll
207
                      cout << "The Rogue rolled one dice (1-20): Initiative score of "</pre>
208
                        << Assassin_Jim->getInitRoll();//gets a value from 1-20
                      cout << " + a speed modifier of " << Assassin Jim-
209
                        >getInitiativeModifier();//gets modifier
210
                      cout << " for a total of " << Assassin_Jim->initiativeRoll() <<</pre>
                        endl;//calculates both numbers for a total roll
211
212
             } while (Assassin_Jim->getHealth() > 0);//executes code as long as rogue →
               is still alive
213
                  if (Assassin_Jim->getHealth() < 0)//if rogue dies then the player has →
214
                    won the game
215
```

Source.cpp 7 cout << "The Rogue has been slain!" << endl;</pre> 216 cout << "You won the video game" << endl;</pre> 217 218 } 219 }//entire code will continue to execute as long as the player is above 0 ightharpoonuphealth 220 if (Knight_Timmy->getHealth() < 0)</pre> 221 cout << "You died..." << endl;//once the user reaches under 0, the</pre> 222 game is over 223 } 224 } 225 system("pause>nul"); 226 return 0; 227 228 }

CommonStatistics.h 1

```
1 #ifndef COMMONSTATISTICS_H
 2 #define COMMONSTATISTICS H
 3 #include <iostream>
 4 #include <time.h>
 5 #include <string>
 6 using namespace std;
 8 class CommonStatistics
 9 {
10 protected:
11
        string name;//player names
12
        int health;//health is fixed respectively but all shared
13
        int armor;//armor is unique but they share the common stat
14 public:
15
       CommonStatistics(string n, int h, int ar);//overloaded constructor the other
          classes can use
16
        string getName();//gets player name
        int getHealth();//gets player health
17
18
        int getArmor();//gets player armor
       virtual void printStats() = 0;//function to test for abstraction
19
20
       void receiveDamage(int damageTaken);//function to deal with damage taking
21 };
22 CommonStatistics::CommonStatistics(string n, int h, int ar)//overwritten arguments →
       are set
23 {//equal to their respective variable in each class
24
       name = n;//1st
25
       health = h;//2nd
26
       armor = ar; //3rd
27 }
28 string CommonStatistics::getName()
29 {
30
        return name;//gets name of the desired player
31 }
32 int CommonStatistics::getHealth()
33 {
       return health;//gets health of the desired player
34
36 int CommonStatistics::getArmor()
37 {
       return armor;//gets armor of the desired player
38
39 }
40 void CommonStatistics::receiveDamage(int damageTaken)//receives the enemy's attack
41 {//the attack value is then taken away from the current player receiving the
     damage
       health = (health - (damageTaken - armor));//health is subtracted with armor as →
42
          well
        cout << name << " has taken " << damageTaken << " damage and is now at ";</pre>
43
44
        cout << health << " HP" << endl;//hp left after attack</pre>
46 #endif // !COMMONSTATISTICS_H
```

Warrior.h 1

```
1 #ifndef WARRIOR_H//Knight
 2 #define WARRIOR H//Knight
 3 #include "CommonStatistics.h"
 4 class Warrior : public CommonStatistics
 5 {
 6 private:
 7
        int attack;//value the player attacks
        int heal;//value to heal with
 8
 9
        int attackModifier;//Strength
        int initiativeModifier;//Speed
10
        int initRoll = rand() % 20 + 1;//roll of 1-20
11
12 public:
13
       Warrior(string n, int hlth, int ar);//3 parameters that can be overwritten
14
        virtual void printStats();//prints user stats
15
        void move();//option to heal or attack
16
        int initiativeRoll();//calculates final intitiative
        int getInitRoll();//gets value from 1-20
17
        int makeAttack();//makes attack from the attack and its modifier
19
        int getAttack();//gets value from 1-6
20
        int getHeal();//gets value from 2-10
        int getNewHealth();//adds generated value to current health
21
22
        int getAttackModifer();//gets value of 3
23
        int getInitiativeModifier();//gets value of 4
24
25 };
26 Warrior::Warrior(string n, int hlth, int ar) : CommonStatistics(n, hlth, ar)
27 {//inherits 3 parameters of name, health, and armor
28
        srand(time(0));//to seed a random number
29
        heal = ((rand() \% 5 + 1) + (rand() \% 5 + 1));//2-10
30
        attack = rand() \% 6 + 1;//1-6
31
        attackModifier = 3;
        initiativeModifier = 4;
32
33 }
34 void Warrior::printStats()
35 {//function to print stats
        cout << "Warrior " << name << "'s current stats:" << endl;</pre>
        cout << "Health: " << health << endl;</pre>
37
38
        cout << "Healing Die : 2 D5" << endl;</pre>
39
       cout << "Base Attack Die : 1 D6" << endl;</pre>
        cout << "Armor : " << armor << endl;</pre>
        cout << "Attack Modifier (Strength) : " << attackModifier << endl;</pre>
41
        cout << "Initiative Modifier (Speed) : " << initiativeModifier << endl;</pre>
42
43 }
44 int Warrior::getInitRoll()
45 {
46
        return initRoll;//returns the roll of 1-20
47 }
48 int Warrior::initiativeRoll()
49 {
50
        return (initRoll + initiativeModifier);//adds final initiative roll number
51 }
52 void Warrior::move()
```

Warrior.h 2

```
53 {//function for the user to choose between healing or attacking
       cout << "Your Move:" << endl;</pre>
       cout << "What will you do?" << endl;</pre>
56
       cout << "1. Attack" << endl;</pre>
57
       cout << "2. Heal" << endl;</pre>
58 }
59 int Warrior::makeAttack()
60 {
61
       return (attack + attackModifier);//returns final damaging going to be dealt
62 }
63 int Warrior::getAttack()
64 {
       return attack;//gets attack value from 1-6
65
66 }
67 int Warrior::getHeal()
68 {
       return heal;//gets heal from 2-10
69
70 }
71 int Warrior::getNewHealth()
72 {//function to return new health
73
       if ((heal + health) > 20)//if the new health goes over 20
74
        {//then health is set to 20
75
            health = 20;
76
            return health;
77
78
       else//if not, it returns the value under 20 or less
79
80
            return (heal + health);
81
        }
82 }
83 int Warrior::getAttackModifer()
84 {
       return attackModifier;//gets value of 3
85
87 int Warrior::getInitiativeModifier()
88 {
89
       return initiativeModifier;//gets value of 4
91 #endif // !WARRIOR_H
```

Mage.h

```
1 #ifndef MAGE H
 2 #define MAGE H
 3 #include "CommonStatistics.h"
 5 class Mage : public CommonStatistics
 6 {
 7 private:
 8
       int attack;
 9
       int attackModifier;//Intellect
        int initRoll = rand() % 20 + 1;//roll of 1-20
10
11 public:
12
       Mage(string n, int hth, int ar);
13
       virtual void printStats();
14
       int initiativeRoll();//gets roll of 1-20
15
       int makeAttack();//makes attack of 1-4
16
        int getAttack();//gets attack value
        int getAttackModifier();//gets modifier value of 7
17
18 };
19 Mage::Mage(string n, int hlth, int ar) : CommonStatistics(n, hlth, ar)
20 {//inheritance overloaded constructor
21
        srand(time(0));
22
        attack = rand() \% 4 + 1;//1-4
23
        attackModifier = 7;
24 }
25 void Mage::printStats()
26 {//function to print stats
        cout << "Mage " << name <<"'s current stats:" << endl;</pre>
27
        cout << "Health: " << health << endl;</pre>
28
29
        cout << "Base Attack Die : 1 D4" << endl;</pre>
30
       cout << "Armor : " << armor << endl;</pre>
       cout << "Attack Modifier (Intellect) : " << attackModifier << endl;</pre>
31
32 }
33 int Mage::initiativeRoll()
34 {
35
       return initRoll;//value of 1-20
36 }
37 int Mage::makeAttack()
38 {
       return (attack + attackModifier);//calculates for a total of 8-11
39
40 }
41 int Mage::getAttack()
42 {
43
        return attack;//value of 1-4
44 }
45 int Mage::getAttackModifier()
46 {
       return attackModifier;//value of 7
47
48 }
49 #endif // !MAGE_H
```

Rogue.h 1

```
1 #ifndef ROGUE_H
 2 #define ROGUE H
 3 #include "CommonStatistics.h"
 5 class Rogue : public CommonStatistics
 6 {
 7 private:
 8
       int attack;
       int attackModifier;//Agility
 9
        int initiativeModifier;//Speed
10
11
        int dodge;//50% chance to dodge
12
        int initRoll = rand() % 20 + 1;//roll of 1-20
13 public:
14
        Rogue(string n, int hlth, int ar);//overloaded constructor
15
        virtual void printStats();//prints stats
16
        int initiativeRoll();//value of 1-20
17
        int makeAttack();//to attack
        int getInitRoll();//return value of 1-20
19
        int getAttack();//gets 2-8 value
20
        int getAttackModifier();//4
21
        int getInitiativeModifier();//5
22
        int getDodge();//1 or 2 value
23 };
24 Rogue::Rogue(string n, int hlth, int ar) : CommonStatistics(n, hlth, ar)
25 {//function that inherits from bas class
26
        srand(time(0));
27
        attack = ((rand() \% 4 + 1) + (rand() \% 4 + 1));//2-8
28
        attackModifier = 4;
29
        initiativeModifier = 5;
30
        dodge = rand() \% 2 + 1;//1 or 2
31 }
32 void Rogue::printStats()
33 {//function that prints stats
        cout << "Rogue " << name << "'s current stats:" << endl;</pre>
34
35
        cout << "Health: " << health << endl;</pre>
        cout << "Base Attack Die: 2 D4" << endl;</pre>
36
37
        cout << "Armor: " << armor << endl;</pre>
        cout << "Attack Modifier (Agility): " << attackModifier << endl;</pre>
38
        cout << "Initiative Modifier (Speed): " << initiativeModifier << endl;</pre>
39
        cout << "Dodge: 50% chance to dodge an incoming attack" << endl;</pre>
41 }
42 int Rogue::initiativeRoll()
43 {
        return (initRoll + initiativeModifier);//adds roll + modifier
44
45 }
46 int Rogue::makeAttack()
47 {
48
        return (attack + attackModifier);//adds attack + modifier
49 }
50 int Rogue::getInitRoll()
51 {
52
        return initRoll;//value of 1-20
```

Rogue.h 2

```
53 }
54 int Rogue::getAttack()
55 {
56
       return attack;//2-8 values
57 }
58 int Rogue::getAttackModifier()
       return attackModifier;//value of 4
60
61 }
62 int Rogue::getInitiativeModifier()
63 {
       return initiativeModifier;//value of 5
64
65 }
66 int Rogue::getDodge()
68
       return dodge;//value of 1 or 2
69 }
70 #endif // !ROGUE_H
```

```
You are now Knight Timmy, a ferocious Warrior.
A Mage named Wizard Gandolfo appears and is ready to battle!
Warrior Knight Timmy's current stats:
Health: 20
Healing Die : 2 D5
Base Attack Die : 1 D6
Armor : 5
Attack Modifier (Strength) : 3
Initiative Modifier (Speed): 4
Mage Wizard Gandolfo's current stats:
Health: 15
Base Attack Die : 1 D4
Armor : 2
Attack Modifier (Intellect) : 7
You rolled one dice (1-20): Initiative score of 2 + a speed modifier of 4 for a total of 6
The Mage rolled one dice (1-20): Initiative score of 15 and has no bonus speed modifier
Wizard Gandolfo's Move:
Wizard Gandolfo rolled one dice(1-4): Damage score of 3 + an intellect modifier of 7 for a total of 10
Knight Timmy has taken 10 damage and is now at 15 HP
Your Move:
What will you do?

    Attack

Heal
You rolled one dice(1-6): Damage score of 2 + a strength modifier of 3 for a total of 5
Wizard Gandolfo has taken 5 damage and is now at 12 HP
You rolled one dice (1-20): Initiative score of 2 + a speed modifier of 4 for a total of 6
The Mage rolled one dice (1-20): Initiative score of 15 and has no bonus speed modifier
Wizard Gandolfo's Move:
Wizard Gandolfo rolled one dice(1-4): Damage score of 3 + an intellect modifier of 7 for a total of 10
Knight Timmy has taken 10 damage and is now at 10 HP
Your Move:
What will you do?

    Attack

2. Heal
You heal yourself for 5 hit points!
Total HP now at: 15
You rolled one dice (1-20): Initiative score of 2 + a speed modifier of 4 for a total of 6
The Mage rolled one dice (1-20): Initiative score of 15 and has no bonus speed modifier
Wizard Gandolfo's Move:
Wizard Gandolfo rolled one dice(1-4): Damage score of 3 + an intellect modifier of 7 for a total of 10
Knight Timmy has taken 10 damage and is now at 5 HP
Your Move:
What will you do?

    Attack

2. Heal
```

```
You rolled one dice(1-6): Damage score of 2 + a strength modifier of 3 for a total of 5
Wizard Gandolfo has taken 5 damage and is now at 9 HP
You rolled one dice (1-20): Initiative score of 2 + a speed modifier of 4 for a total of 6
The Mage rolled one dice (1-20): Initiative score of 15 and has no bonus speed modifier
Wizard Gandolfo's Move:
Wizard Gandolfo rolled one dice(1-4): Damage score of 3 + an intellect modifier of 7 for a total of 10
Knight Timmy has taken 10 damage and is now at 0 HP
Your Move:
What will you do?

    Attack

Heal
You rolled one dice(1-6): Damage score of 2 + a strength modifier of 3 for a total of 5
Wizard Gandolfo has taken 5 damage and is now at 6 HP
You rolled one dice (1-20): Initiative score of 2 + a speed modifier of 4 for a total of 6
The Mage rolled one dice (1-20): Initiative score of 15 and has no bonus speed modifier
Wizard Gandolfo's Move:
Wizard Gandolfo rolled one dice(1-4): Damage score of 3 + an intellect modifier of 7 for a total of 10
Knight Timmy has taken 10 damage and is now at -5 HP
Your Move:
What will you do?

    Attack

Heal
You rolled one dice(1-6): Damage score of 2 + a strength modifier of 3 for a total of 5
Wizard Gandolfo has taken 5 damage and is now at 3 HP
You rolled one dice (1-20): Initiative score of 2 + a speed modifier of 4 for a total of 6
The Mage rolled one dice (1-20): Initiative score of 15 and has no bonus speed modifier
Wizard Gandolfo's Move:
Wizard Gandolfo rolled one dice(1-4): Damage score of 3 + an intellect modifier of 7 for a total of 10
Knight Timmy has taken 10 damage and is now at -10 HP
Your Move:
What will you do?

    Attack

Heal
You rolled one dice(1-6): Damage score of 2 + a strength modifier of 3 for a total of 5
Wizard Gandolfo has taken 5 damage and is now at 0 HP
You rolled one dice (1-20): Initiative score of 2 + a speed modifier of 4 for a total of 6
The Rogue rolled one dice (1-20): Initiative score of 18 + a speed modifier of 5 for a total of 23
Assassin Jim's Move:
Assassin Jim rolled two dice(1-4): Damage score of 3 + an agility modifier of 7 for a total of 10
Knight Timmy has taken 9 damage and is now at -14 HP
```

```
Your Move:
What will you do?

    Attack

Heal
You heal yourself for 5 hit points!
Total HP now at: -9
You rolled one dice (1-20): Initiative score of 2 + a speed modifier of 4 for a total of 6
The Rogue rolled one dice (1-20): Initiative score of 18 + a speed modifier of 5 for a total of 23
Assassin Jim's Move:
Assassin Jim rolled two dice(1-4): Damage score of 3 + an agility modifier of 7 for a total of 10
Knight Timmy has taken 9 damage and is now at -18 HP
Your Move:
What will you do?
1. Attack
Heal
You heal yourself for 5 hit points!
Total HP now at: -13
You rolled one dice (1-20): Initiative score of 2 + a speed modifier of 4 for a total of 6
The Rogue rolled one dice (1-20): Initiative score of 18 + a speed modifier of 5 for a total of 23
Assassin Jim's Move:
Assassin Jim rolled two dice(1-4): Damage score of 3 + an agility modifier of 7 for a total of 10
Knight Timmy has taken 9 damage and is now at -22 HP
Your Move:
What will you do?
1. Attack
Heal
You rolled one dice(1-6): Damage score of 2 + a strength modifier of 3 for a total of 9
Assassin Jim has taken 5 damage and is now at 8 HP
Assassin Jim's Move:
Assassin Jim rolled two dice(1-4): Damage score of 5 + an agility modifier of 4 for a total of 9
Knight Timmy has taken 9 damage and is now at -26 HP
You rolled one dice (1-20): Initiative score of 2 + a speed modifier of 4 for a total of 6
The Rogue rolled one dice (1-20): Initiative score of 18 + a speed modifier of 5 for a total of 23
Assassin Jim's Move:
Assassin Jim rolled two dice(1-4): Damage score of 3 + an agility modifier of 7 for a total of 10
Knight Timmy has taken 9 damage and is now at -30 HP
Your Move:
What will you do?

    Attack

Heal
You heal yourself for 5 hit points!
Total HP now at: -25
You rolled one dice (1-20): Initiative score of 2 + a speed modifier of 4 for a total of 6
The Rogue rolled one dice (1-20): Initiative score of 18 + a speed modifier of 5 for a total of 23
```

```
Assassin Jim's Move:
Assassin Jim rolled two dice(1-4): Damage score of 3 + an agility modifier of 7 for a total of 10
Knight Timmy has taken 9 damage and is now at -34 HP
Your Move:
What will you do?

    Attack

Heal
You rolled one dice(1-6): Damage score of 2 + a strength modifier of 3 for a total of 9
Assassin Jim has taken 5 damage and is now at 6 HP
Assassin Jim's Move:
Assassin Jim rolled two dice(1-4): Damage score of 5 + an agility modifier of 4 for a total of 9
Knight Timmy has taken 9 damage and is now at -38 HP
You rolled one dice (1-20): Initiative score of 2 + a speed modifier of 4 for a total of 6
The Rogue rolled one dice (1-20): Initiative score of 18 + a speed modifier of 5 for a total of 23
Assassin Jim's Move:
Assassin Jim rolled two dice(1-4): Damage score of 3 + an agility modifier of 7 for a total of 10
Knight Timmy has taken 9 damage and is now at -42 HP
Your Move:
What will you do?

    Attack

Heal
You heal yourself for 5 hit points!
Total HP now at: -37
You rolled one dice (1-20): Initiative score of 2 + a speed modifier of 4 for a total of 6
The Rogue rolled one dice (1-20): Initiative score of 18 + a speed modifier of 5 for a total of 23
Assassin Jim's Move:
Assassin Jim rolled two dice(1-4): Damage score of 3 + an agility modifier of 7 for a total of 10
Knight Timmy has taken 9 damage and is now at -46 HP
Your Move:
What will you do?
1. Attack
Heal
You rolled one dice(1-6): Damage score of 2 + a strength modifier of 3 for a total of 9
Assassin Jim has taken 5 damage and is now at 4 HP
Assassin Jim's Move:
Assassin Jim rolled two dice(1-4): Damage score of 5 + an agility modifier of 4 for a total of 9
Knight Timmy has taken 9 damage and is now at -50 HP
You rolled one dice (1-20): Initiative score of 2 + a speed modifier of 4 for a total of 6
The Rogue rolled one dice (1-20): Initiative score of 18 + a speed modifier of 5 for a total of 23
Assassin Jim's Move:
Assassin Jim rolled two dice(1-4): Damage score of 3 + an agility modifier of 7 for a total of 10
Knight Timmy has taken 9 damage and is now at -54 HP
```

```
Your Move:
What will you do?

    Attack

Heal
You rolled one dice(1-6): Damage score of 2 + a strength modifier of 3 for a total of 9
Assassin Jim has taken 5 damage and is now at 2 HP
Assassin Jim's Move:
Assassin Jim rolled two dice(1-4): Damage score of 5 + an agility modifier of 4 for a total of 9
Knight Timmy has taken 9 damage and is now at -58 HP
You rolled one dice (1-20): Initiative score of 2 + a speed modifier of 4 for a total of 6
The Rogue rolled one dice (1-20): Initiative score of 18 + a speed modifier of 5 for a total of 23
Assassin Jim's Move:
Assassin Jim rolled two dice(1-4): Damage score of 3 + an agility modifier of 7 for a total of 10
Knight Timmy has taken 9 damage and is now at -62 HP
Your Move:
What will you do?
1. Attack
Heal
You rolled one dice(1-6): Damage score of 2 + a strength modifier of 3 for a total of 9
Assassin Jim has taken 5 damage and is now at 0 HP
Assassin Jim's Move:
Assassin Jim rolled two dice(1-4): Damage score of 5 + an agility modifier of 4 for a total of 9
Knight Timmy has taken 9 damage and is now at -66 HP
```

You died...