

## Lab 6 : Code Review

• public void getItem() { ... }

อนึ่งในกรณีนี้ if else if นานเกินไป

แทนที่ for ... (for loop)

int sum = 1;

int[] levelOfObject = { 6, 4, 7, 9, 9 };

int[] damageOfObject = { 60, 45, 72, 99, 95 };

for (i = 0; i < sum; i++) { → loop นี้

int swordChoice = w.nextInt();

if (swordChoice > 1 && swordChoice < 5) {

→ เลือก 1 ถึง 5

this.level += levelOfObject[swordChoice - 1];

→ ของ -1 แทน array เริ่มที่ 0

this.damage += damageOfObject[swordChoice - 1];

} else {

system.print("ERROR");

}

updateState();

downSpeed = speed \* (0.1 + 0.4 \* level);

speed = maxSpeed - downSpeed;

return -- -- -- --

}

แบบนี้อาจทำได้ แต่ code ยาวเกินไป  
หาวิธีทำให้ง่ายขึ้น หรือใช้ switch case

• ถ้าใช้ switch case แล้วจะดีกว่าไหม? หรือใช้ array แทน if else

```

1 public void getItem () {
2     Scanner s = new Scanner(System.in);
3     System.out.print("Choose a sword(sw) or shield(sh) or all(all) ? : ");
4     String sw = s.nextLine();
5
6     if (sw.equals("sw") || sw.equals("sh") || sw.equals("all")) {
7         if (sw.equals("sw")) {
8             System.out.println("\uD83D\uDE1\uFE0F You choose the sword \uD83D\uDE1\uFE0F");
9
10            System.out.printf("-----%n");
11            System.out.printf("|%s | %-15s | %4s | %5s|%n", "NO", "NAME", "LEVEL", "
DAMAGE");
12            System.out.printf("-----%n");
13
14            System.out.printf("| %1d | %-15s | %1d      | %1d      |%n", 1, "Enma", 6, 60
);
15            System.out.printf("| %1d | %-15s | %1d      | %1d      |%n", 2, "Shusui", 8,
85);
16            System.out.printf("| %1d | %-15s | %1d      | %1d      |%n", 3, "Yubashiri", 7
, 78);
17            System.out.printf("| %1d | %-15s | %1d      | %1d      |%n", 4, "Wado
Ichimonji", 9, 99);
18            System.out.printf("| %1d | %-15s | %1d      | %1d      |%n", 5, "Sandai
Kitetsu", 9, 95);
19
20            Scanner w = new Scanner(System.in);
21            System.out.print("You choose sword number: ");
22            int swn = w.nextInt();
23            if (swn == 1) {
24                this.Level += 6;
25                this.Damage += 60;
26
27            } else if (swn == 2) {
28                this.Level += 8;
29                this.Damage += 85;
30
31            } else if (swn == 3) {
32                this.Level += 7;
33                this.Damage += 78;
34
35            } else if (swn == 4) {
36                this.Level += 9;
37                this.Damage += 99;
38
39            } else if (swn == 5) {
40                this.Level += 9;
41                this.Damage += 95;
42
43            } else {
44                System.out.print("ERROR !!!");
45            }
46
47            updateState();
48            //Calculate downSpeed to find the current speed.
49            downSpeed = Speed*(0.1 + 0.4*Level);
50            //set current speed
51            Speed = maxSpeed - downSpeed;
52            System.out.printf("-----%n");
53
54        }

```

```

55
56     if (sw.equals("sh")) {
57         System.out.println("\uD83D\uDEE1\uFE0F You choose the shield \uD83D\uDEE1\uFE0F");
58
59         System.out.printf("-----%n");
60         System.out.printf("|%s | %-15s | %4s | %5s|%n", "NO", "NAME", "LEVEL", "
DEFENSE");
61         System.out.printf("-----%n");
62
63         System.out.printf("| %1d | %-15s | %1d      | %1d      |%n", 1, "Zeus", 9, 98
);
64         System.out.printf("| %1d | %-15s | %1d      | %1d      |%n", 2, "Ares", 6, 60
);
65         System.out.printf("| %1d | %-15s | %1d      | %1d      |%n", 3, "Poseidon", 8
, 80);
66         System.out.printf("| %1d | %-15s | %1d      | %1d      |%n", 4, "Hera", 7, 66
);
67         System.out.printf("| %1d | %-15s | %1d      | %1d      |%n", 5, "Athena", 8,
79);
68
69         Scanner w = new Scanner(System.in);
70         System.out.print("You choose shield number: ");
71         int swn = w.nextInt();
72         if (swn == 1) {
73             this.Level += 9;
74             this.Defense += 98;
75
76         } else if (swn == 2) {
77             this.Level += 6;
78             this.Defense += 60;
79
80         } else if (swn == 3) {
81             this.Level += 8;
82             this.Defense += 80;
83
84         } else if (swn == 4) {
85             this.Level += 7;
86             this.Defense += 66;
87
88         } else if (swn == 5) {
89             this.Level += 8;
90             this.Defense += 79;
91
92         } else {
93             System.out.print("ERROR !!!");
94         }
95
96         updateState();
97         //Calculate downSpeed to find the current speed.
98         downSpeed = Speed*(0.1 + 0.8*Level);
99         //set current speed
100         Speed = maxSpeed - downSpeed;
101         System.out.printf("-----%n");
102
103     }
104     if (sw.equals("all")) {
105         System.out.println("\uD83D\uDD31 You choose all item \uD83D\uDD31");
106
107         System.out.printf("-----|  🏠\uFE0F
|-----%n");

```

```

1108         System.out.printf("|%s | %-15s | %4s | %5s | %-3s |%s | %-15s | %4s | %5s
| %n", "NO", "NAME", "LEVEL", "DAMAGE", "☐\uFE0F", "NO", "NAME", "LEVEL", "DEFENSE");
1109         System.out.printf("-----| ☐\uFE0F
| -----%n");
1110
1111         System.out.printf("| %1d | %-15s | %1d      | %1d      | %-3s | %1d | %-15s
| %1d      | %1d      | %n", 1, "Enma", 6, 60, "☐\uFE0F", 1, "Zeus", 9, 98);
1112         System.out.printf("| %1d | %-15s | %1d      | %1d      | %-3s | %1d | %-15s
| %1d      | %1d      | %n", 2, "Shusui", 8, 85, "☐\uFE0F", 2, "Ares", 6, 60);
1113         System.out.printf("| %1d | %-15s | %1d      | %1d      | %-3s | %1d | %-15s
| %1d      | %1d      | %n", 3, "Yubashiri", 7, 78, "☐\uFE0F", 3, "Poseidon", 8, 80);
1114         System.out.printf("| %1d | %-15s | %1d      | %1d      | %-3s | %1d | %-15s
| %1d      | %1d      | %n", 4, "Wado Ichimonji", 9, 99, "☐\uFE0F", 4, "Hera", 7, 66);
1115         System.out.printf("| %1d | %-15s | %1d      | %1d      | %-3s | %1d | %-15s
| %1d      | %1d      | %n", 5, "Sandai Kitetsu", 9, 95, "☐\uFE0F", 5, "Athena", 8, 79
);
1116
1117
1118         Scanner w = new Scanner(System.in);
1119         System.out.print("You choose sword number: ");
1120         int sw1 = w.nextInt();
1121         System.out.print("You choose shield number: ");
1122         int sh2 = w.nextInt();
1123
1124         if (sw1 == 1 && sh2 == 1) {
1125             this.Level += 15;
1126             this.Damage += 60;
1127             this.Defense += 98;
1128
1129         } else if (sw1 == 1 && sh2 == 2) {
1130             this.Level += 12;
1131             this.Damage += 60;
1132             this.Defense += 60;
1133
1134         } else if (sw1 == 1 && sh2 == 3) {
1135             this.Level += 14;
1136             this.Damage += 60;
1137             this.Defense += 80;
1138
1139         } else if (sw1 == 1 && sh2 == 4) {
1140             this.Level += 13;
1141             this.Damage += 60;
1142             this.Defense += 66;
1143
1144         } else if (sw1 == 1 && sh2 == 5) {
1145             this.Level += 14;
1146             this.Damage += 60;
1147             this.Defense += 79;
1148
1149         } else if (sw1 == 2 && sh2 == 1) {
1150             this.Level += 17;
1151             this.Damage += 85;
1152             this.Defense += 98;
1153
1154         } else if (sw1 == 2 && sh2 == 2) {
1155             this.Level += 14;
1156             this.Damage += 85;
1157             this.Defense += 60;
1158
1159         } else if (sw1 == 2 && sh2 == 3) {
1160             this.Level += 16;

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```
161         this.Damage += 85;
162         this.Defense += 80;
163
164     } else if (sw1 == 2 && sh2 == 4) {
165         this.Level += 15;
166         this.Damage += 85;
167         this.Defense += 66;
168
169     } else if (sw1 == 2 && sh2 == 5) {
170         this.Level += 16;
171         this.Damage += 85;
172         this.Defense += 79;
173
174     } else if (sw1 == 3 && sh2 == 1) {
175         this.Level += 16;
176         this.Damage += 78;
177         this.Defense += 98;
178
179     } else if (sw1 == 3 && sh2 == 2) {
180         this.Level += 13;
181         this.Damage += 78;
182         this.Defense += 60;
183
184     } else if (sw1 == 3 && sh2 == 3) {
185         this.Level += 15;
186         this.Damage += 78;
187         this.Defense += 80;
188
189     } else if (sw1 == 3 && sh2 == 4) {
190         this.Level += 14;
191         this.Damage += 78;
192         this.Defense += 66;
193
194     } else if (sw1 == 3 && sh2 == 5) {
195         this.Level += 15;
196         this.Damage += 78;
197         this.Defense += 79;
198
199     } else if (sw1 == 4 && sh2 == 1) {
200         this.Level += 18;
201         this.Damage += 99;
202         this.Defense += 98;
203
204     } else if (sw1 == 4 && sh2 == 2) {
205         this.Level += 15;
206         this.Damage += 99;
207         this.Defense += 60;
208
209     } else if (sw1 == 4 && sh2 == 3) {
210         this.Level += 17;
211         this.Damage += 99;
212         this.Defense += 80;
213
214     } else if (sw1 == 4 && sh2 == 4) {
215         this.Level += 16;
216         this.Damage += 99;
217         this.Defense += 66;
218
219     } else if (sw1 == 4 && sh2 == 5) {
220         this.Level += 17;
221         this.Damage += 99;
```

```
222         this.Defense += 79;
223
224     }else if (sw1 == 5&& sh2 == 1) {
225         this.Level += 18;
226         this.Damage += 95;
227         this.Defense += 98;
228
229     } else if (sw1 == 5 && sh2 == 2) {
230         this.Level += 15;
231         this.Damage += 99;
232         this.Defense += 60;
233
234     } else if (sw1 == 5 && sh2 == 3) {
235         this.Level += 17;
236         this.Damage += 95;
237         this.Defense += 80;
238
239     } else if (sw1 == 5 && sh2 == 4) {
240         this.Level += 16;
241         this.Damage += 95;
242         this.Defense += 66;
243
244     } else if (sw1 == 5 && sh2 == 5) {
245         this.Level += 17;
246         this.Damage += 95;
247         this.Defense += 79;
248
249     }
250     else {
251         showError();
252     }
253
254     updateState();
255     //Calculate downSpeed to find the current speed.
256     downSpeed = Speed*(0.1 + 1.2*Level);
257     //set current speed
258     Speed = maxSpeed - downSpeed;
259     System.out.printf(
260         "-----%n");
261     }
262     }else {
263         showError();
264     }
265
266 }
```