

Introduction to Software Engineering

Bonus Assignment

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Solution

```
1. 1 public class StateMachine {
2     private enum State {
3         A,
4         B,
5         C,
6         D,
7     }
8
9     private State currentState;
10
11     public StateMachine() {
12         currentState = State.A;
13     }
14
15     public void X() {
16         switch (currentState) {
17             case A:
18                 currentState = State.C;
19                 entryC();
20                 break;
21             case B:
22                 exitB();
23                 currentState = State.C;
24                 entryC();
25                 break;
26             case C:
27                 currentState = State.D;
28                 break;
29             case D:
30                 System.out.println("Reached final state.");
31                 break;
32         }
33     }
34
35     public void Y() {
36         switch (currentState) {
37             case A:
38                 currentState = State.B;
39                 entryB();
40                 break;
41             case B:
42                 exitB();
43                 currentState = State.D;
44                 break;
45             case D:
46                 currentState = State.C;
47                 entryC();
48                 break;
49         }
50     }
```

java

```

51
52     private void entryB() {
53         System.out.println("Entering State B");
54     }
55
56     private void exitB() {
57         System.out.println("Exiting State B");
58     }
59
60     private void entryC() {
61         System.out.println("Entering State C");
62     }
63 }
64

```

2.

```

1 public class StateMachine {
2     private enum State {
3         A,
4         B,
5         C,
6         D,
7     }
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9     private State currentState;
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11     public StateMachine() {
12         currentState = State.A;
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15     public void X() {
16         switch (currentState) {
17             case A:
18                 currentState = State.C;
19                 entryC();
20                 break;
21             case B:
22                 exitB();
23                 currentState = State.C;
24                 entryC();
25                 break;
26             case C:
27                 currentState = State.D;
28                 break;
29             case D:
30                 System.out.println("Reached final state.");
31                 break;
32         }
33     }
34
35     public void Y() {
36         switch (currentState) {
37             case A:
38                 currentState = State.B;
39                 entryB();
40                 break;
41             case B:

```

java

```

42         exitB();
43         currentState = State.D;
44         break;
45     case D:
46         currentState = State.C;
47         entryC();
48         break;
49     }
50 }
51
52 private void entryB() {
53     System.out.println("Entering State B");
54 }
55
56 private void exitB() {
57     System.out.println("Exiting State B");
58 }
59
60 private void entryC() {
61     System.out.println("Entering State C");
62 }
63 }
64

```

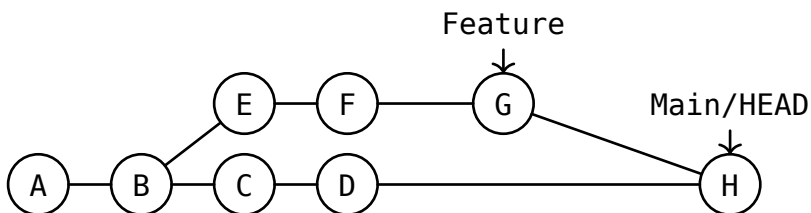
2

Solution

3

Solution

1. git clone git@ipd.edu:swt1/mosaiqueTiles.git
2. cd mosaiqueTiles
3. git branch filterPictures
4. git rm 001.png
5. git commit -m "Reduce number of images"
6. git checkout filterPictures ; git merge main
7. git checkout main ; git push origin main



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Solution

1. `git pull`
2. `git fetch`
3. `git status`
4. `git clone`
5. `git init`
6. `git add`
7. `git commit`
8. `git merge`
9. `git --help`
10. `git push`