```java
1  // Lab05
4  import java.lang.Math;
7  public class FederalTaxRate
8  {
9  public static void main(String args[])
10 {
11 System.out.println("Lab05: The Federal Tax Rate Program");
12 System.out.println();
13 double tax = 0.0; // Reassign this variable based on the respective calculation
14 // Write the user interface
15 // Determine the total federal tax
16 // Print out the total federal tax due
17
18 Scanner maritalStatus = new Scanner(System.in);
19 System.out.println("Which marital status best describes you: Married/Qualifying
   Widower or Single?");
20 String inputtedMaritalStatus = maritalStatus.nextLine();
21 String letterStatus = inputtedMaritalStatus.substring(0,1).toLowerCase();
22
23 Scanner incomeScanner = new Scanner(System.in);
24 System.out.println("What is your income?");
25 Double income = incomeScanner.nextDouble();
26
27 maritalStatus.close();
28 incomeScanner.close();
29
30 if (letterStatus.equals("s")) {
31     if (income<0) {
32         System.out.println("You must have a non-negative income");
33     }
34         else {
35             if (income<=9950.0){
36             tax=0.10*(income);
37             }
38         else {
39             if (income<=40525.0){
40                 tax=995.00+0.12*(income-9950);
41             }
42             else {
43                 if (income<=86375.0){
44                     tax=4664.00+0.22*(income-40525);
45                 }
46                 else {
47                     if (income<=164925.0){
48                         tax=14751.00+0.24*(income-86375);
49                     }
50                     else {
51                         if (income<=209425.0){
52                             tax=33603.00+0.32*(income-164925);
53                         }
54                         else {
55                             if (income<=523600.0){
56                                 tax=47843.00+0.35*(income-209425);
57                             }
58                             else {
59                                 tax=157804.00+0.37*(income-523600);
60
61                             }
62                         }
```

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 63                              }
 64                         }
 65                     }
 66                 }
 67             }
 68         }
 69
 70 else {
 71     if (letterStatus.equals("w") || letterStatus.equals("q") || letterStatus.equals
    ("m")){
 72         if (income<0) {
 73             System.out.println("You must have a non-negative income");
 74         }
 75         else {
 76             if (income<=19900.0){
 77                 tax=0.10*(income);
 78
 79             }
 80             else {
 81                 if (income<=81050.0){
 82                     tax=1990.00+0.12*(income-19900);
 83                 }
 84                 else {
 85                     if (income<=172750.0){
 86                         tax=9328.00+0.22*(income-81050);
 87
 88                     }
 89                     else {
 90                         if (income<=329850.0){
 91                             tax=29502.00+0.24*(income-172750);
 92
 93                         }
 94                         else {
 95                             if (income<=418850.0){
 96                                 tax=67206.00+0.32*(income-329850);
 97                             }
 98                             else {
 99                             if (income<=628300.0){
100                                 tax=95686.00+0.35*(income-418850);
101                             }
102                             else {
103                                 tax=168994.00+0.37*(income-628300);
104                                 }
105                             }
106                         }
107                     }
108                 }
109             }
110         }
111     }
112     else {
113         System.out.println("You must respond with either Married or Single or
    Qualifying Widower");
114     }
115
116 }
117
118 if (income>=0)
119 System.out.println("You must pay " + (Math.round(tax*100)/100.00) + " in federal
```

```
    income taxes."); // Only need to print once, not inside conditionals
120 }
121 }
```