

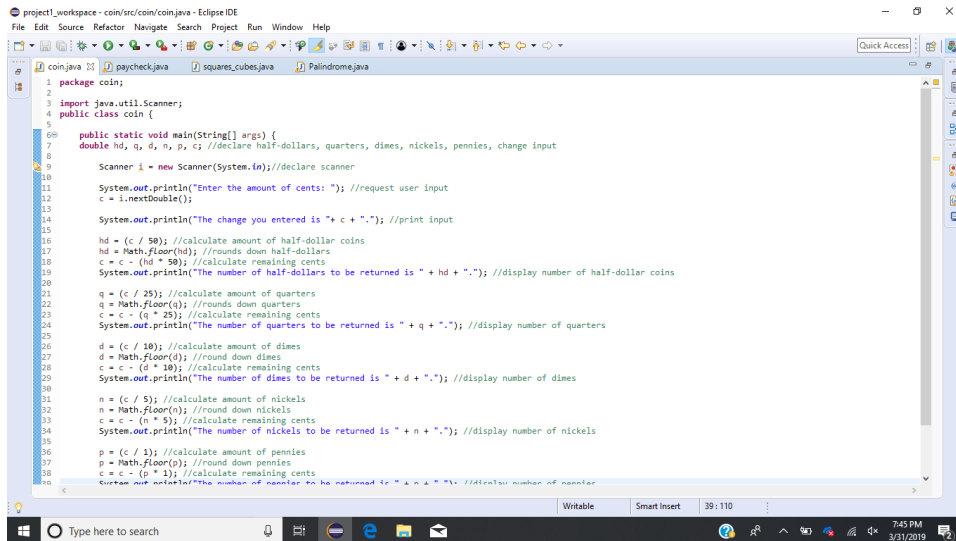
Jamile Thomas II

3/31/19

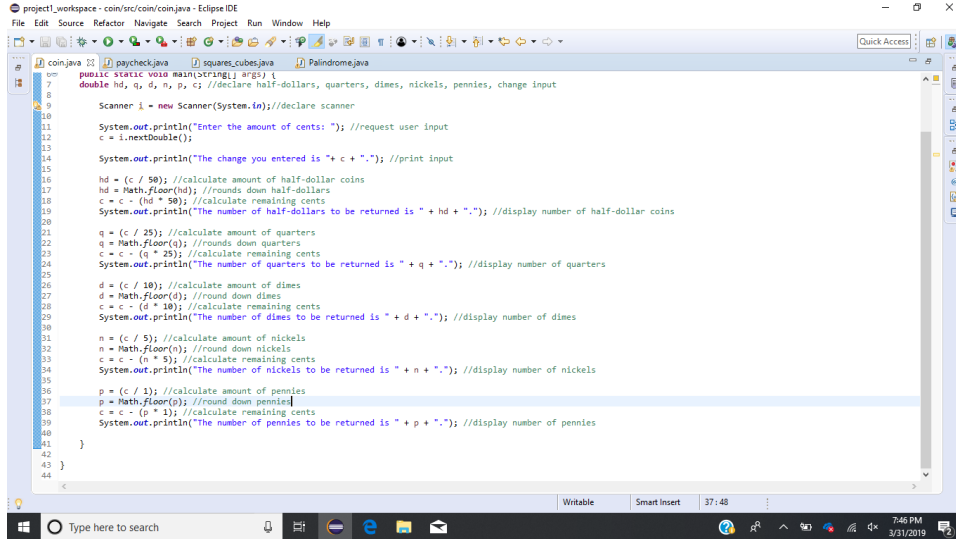
COSC 240-001

## Project 1

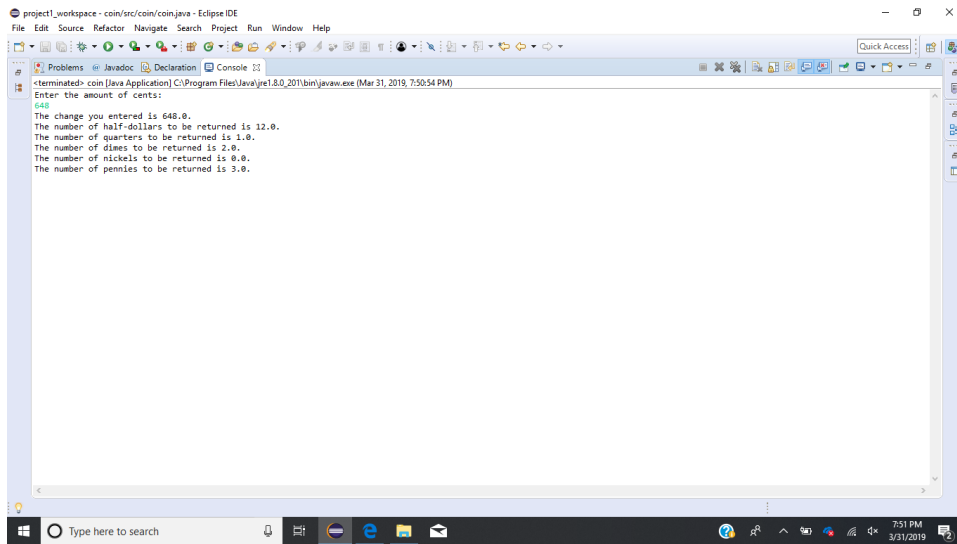
### 1.) Coin.java



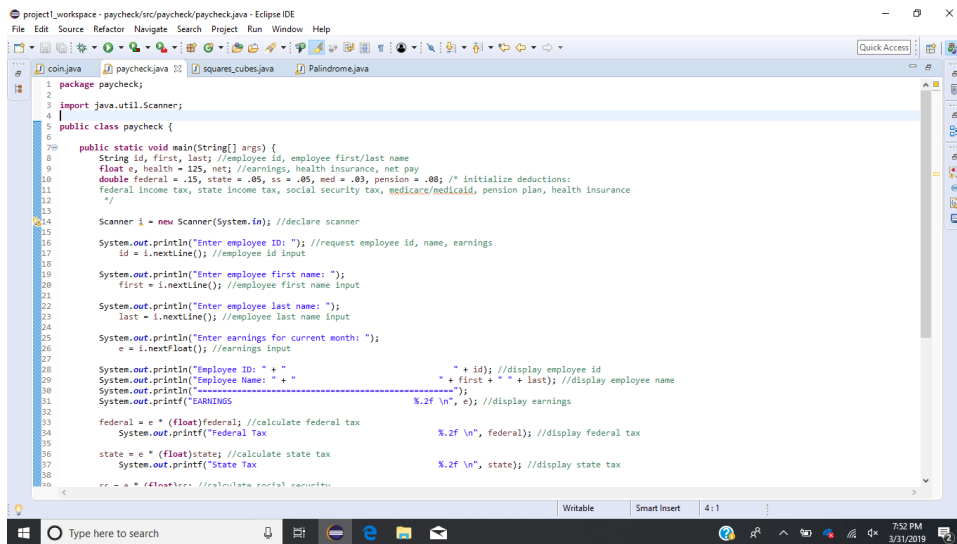
```
1 package coin;
2
3 import java.util.Scanner;
4 public class coin {
5
6     public static void main(String[] args) {
7         double hd, q, d, n, p, c; //declare half-dollars, quarters, dimes, nickels, pennies, change input
8
9         Scanner i = new Scanner(System.in); //declare scanner
10
11         System.out.println("Enter the amount of cents: "); //request user input
12         c = i.nextDouble();
13
14         System.out.println("The change you entered is " + c + "."); //print input
15
16         hd = (c / 50); //calculate amount of half-dollar coins
17         hd = Math.floor(hd); //rounds down half-dollars
18         c = c - (hd * 50); //calculate remaining cents
19         System.out.println("The number of half-dollars to be returned is " + hd + "."); //display number of half-dollar coins
20
21         q = (c / 25); //calculate amount of quarters
22         q = Math.floor(q); //rounds down quarters
23         c = c - (q * 25); //calculate remaining cents
24         System.out.println("The number of quarters to be returned is " + q + "."); //display number of quarters
25
26         d = (c / 10); //calculate amount of dimes
27         d = Math.floor(d); //round down dimes
28         c = c - (d * 10); //calculate remaining cents
29         System.out.println("The number of dimes to be returned is " + d + "."); //display number of dimes
30
31         n = (c / 5); //calculate amount of nickels
32         n = Math.floor(n); //round down nickels
33         c = c - (n * 5); //calculate remaining cents
34         System.out.println("The number of nickels to be returned is " + n + "."); //display number of nickels
35
36         p = (c / 1); //calculate amount of pennies
37         p = Math.floor(p); //round down pennies
38         c = c - (p * 1); //calculate remaining cents
39         System.out.println("The number of pennies to be returned is " + p + "."); //display number of pennies
40
41     }
42
43 }
44 }
```

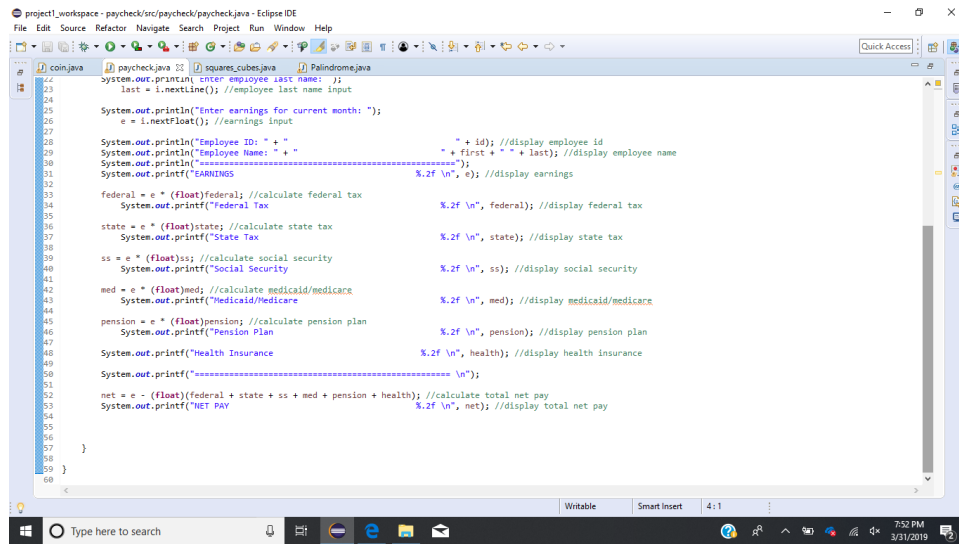


```
1 package coin;
2
3 import java.util.Scanner;
4 public class coin {
5
6     public static void main(String[] args) {
7         double hd, q, d, n, p, c; //declare half-dollars, quarters, dimes, nickels, pennies, change input
8
9         Scanner i = new Scanner(System.in); //declare scanner
10
11         System.out.println("Enter the amount of cents: "); //request user input
12         c = i.nextDouble();
13
14         System.out.println("The change you entered is " + c + "."); //print input
15
16         hd = (c / 50); //calculate amount of half-dollar coins
17         hd = Math.floor(hd); //rounds down half-dollars
18         c = c - (hd * 50); //calculate remaining cents
19         System.out.println("The number of half-dollars to be returned is " + hd + "."); //display number of half-dollar coins
20
21         q = (c / 25); //calculate amount of quarters
22         q = Math.floor(q); //rounds down quarters
23         c = c - (q * 25); //calculate remaining cents
24         System.out.println("The number of quarters to be returned is " + q + "."); //display number of quarters
25
26         d = (c / 10); //calculate amount of dimes
27         d = Math.floor(d); //round down dimes
28         c = c - (d * 10); //calculate remaining cents
29         System.out.println("The number of dimes to be returned is " + d + "."); //display number of dimes
30
31         n = (c / 5); //calculate amount of nickels
32         n = Math.floor(n); //round down nickels
33         c = c - (n * 5); //calculate remaining cents
34         System.out.println("The number of nickels to be returned is " + n + "."); //display number of nickels
35
36         p = (c / 1); //calculate amount of pennies
37         p = Math.floor(p); //round down pennies
38         c = c - (p * 1); //calculate remaining cents
39         System.out.println("The number of pennies to be returned is " + p + "."); //display number of pennies
40
41     }
42
43 }
44 }
```

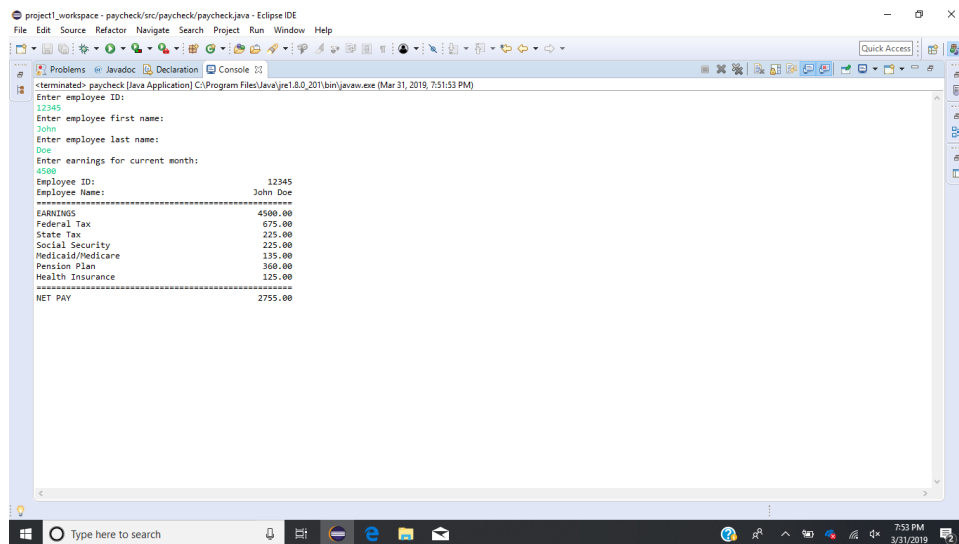


## 2.) paycheck.java



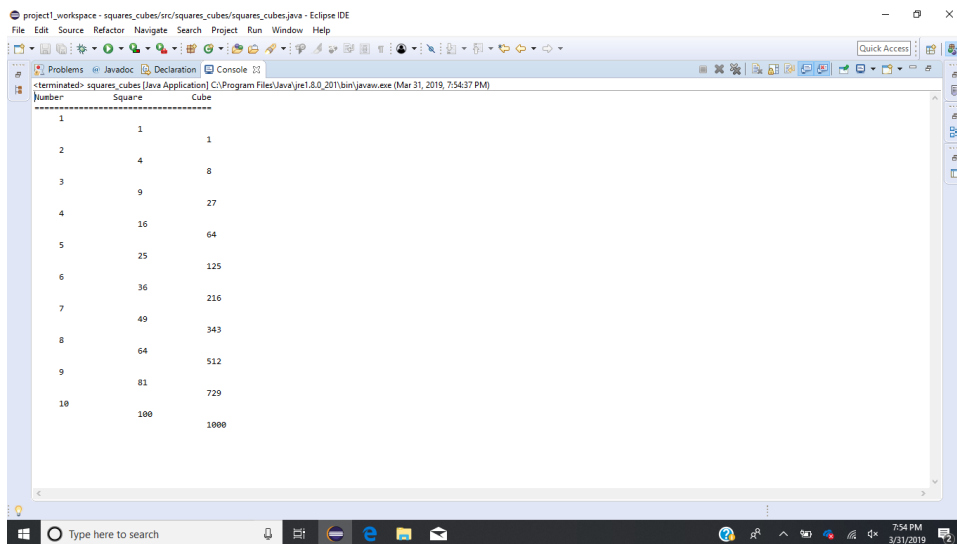
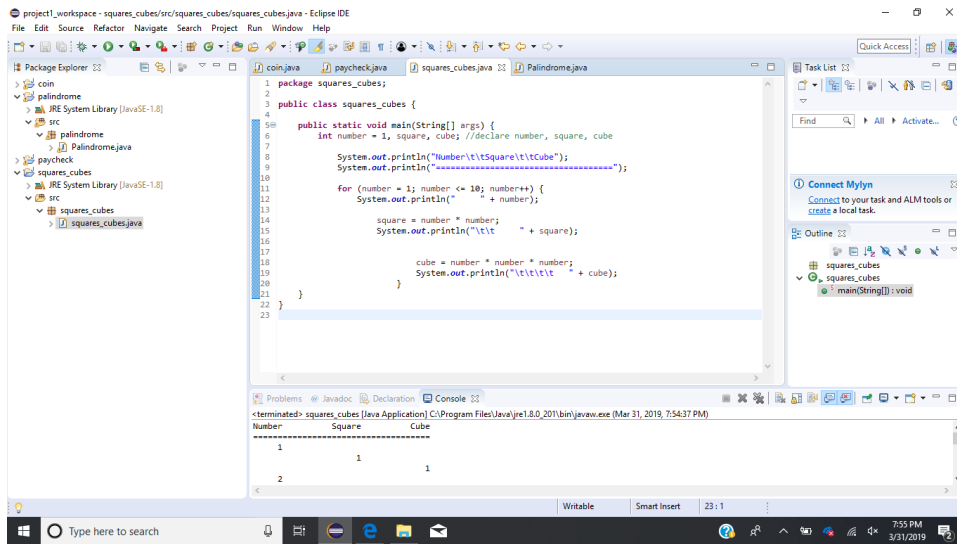


```
12 coin.java 13 paycheck.java 14 squares_cubes.java 15 Palindrome.java
16
17 System.out.println("Enter employee last name: ");
18 last = i.nextLine(); //employee last name input
19
20 System.out.println("Enter earnings for current month: ");
21 e = i.nextFloat(); //earnings input
22
23 System.out.println("Employee ID: " + " " + id); //display employee id
24 System.out.println("Employee Name: " + " " + first + " " + last); //display employee name
25 System.out.println("=====");
26 System.out.printf("EARNINGS %2f\n", e); //display earnings
27
28 federal = e * (float)federal; //calculate federal tax
29 System.out.printf("Federal Tax %2f\n", federal); //display federal tax
30
31 state = e * (float)state; //calculate state tax
32 System.out.printf("State Tax %2f\n", state); //display state tax
33
34 ss = e * (float)ss; //calculate social security
35 System.out.printf("Social Security %2f\n", ss); //display social security
36
37 med = e * (float)med; //calculate medicaid/medicare
38 System.out.printf("Medicaid/Medicare %2f\n", med); //display medicaid/medicare
39
40 pension = e * (float)pension; //calculate pension plan
41 System.out.printf("Pension Plan %2f\n", pension); //display pension plan
42
43 System.out.printf("Health Insurance %2f\n", health); //display health insurance
44
45 System.out.println("=====");
46
47 net = e - (federal + state + ss + med + pension + health); //calculate total net pay
48 System.out.printf("NET PAY %2f\n", net); //display total net pay
49
50 }
51
52 }
```

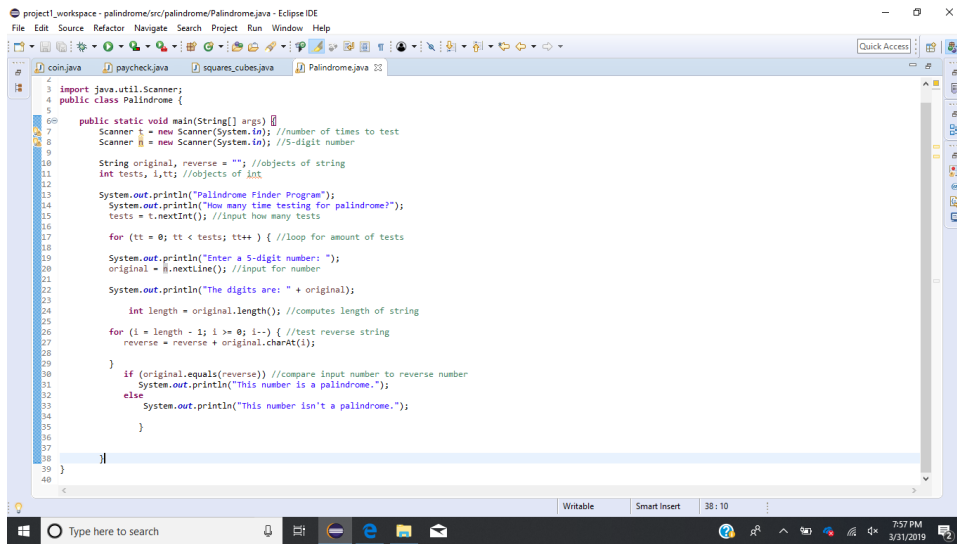


```
<terminated> paycheck [Java Application] C:\Program Files\Java\jre1.8.0_201\bin\java.exe (Mar 31, 2019, 7:51:53 PM)
Enter employee ID:
12345
Enter employee first name:
John
Enter employee last name:
Doe
Enter earnings for current month:
4500
Employee ID: 12345
Employee Name: John Doe
=====
EARNINGS 4500.00
Federal Tax 675.00
State Tax 225.00
Social Security 225.00
Medicaid/Medicare 135.00
Pension Plan 360.00
Health Insurance 125.00
=====
NET PAY 2755.00
```

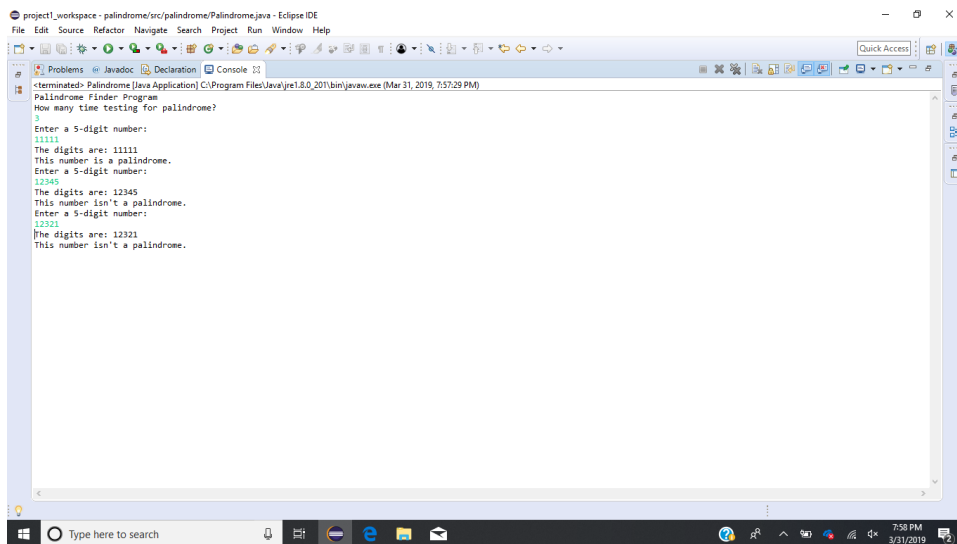
### 3.) squares\_cubes.java



#### 4.) Palindrome.java



```
1 2
3  import java.util.Scanner;
4  public class Palindrome {
5
6      public static void main(String[] args) {
7          Scanner t = new Scanner(System.in); //number of times to test
8          Scanner s = new Scanner(System.in); //5-digit number
9
10         String original, reverse = ""; //objects of string
11         int tests, i, tt; //objects of int
12
13         System.out.println("Palindrome Finder Program");
14         System.out.println("How many time testing for palindrome?");
15         tests = t.nextInt(); //Input how many tests
16
17         for (tt = 0; tt < tests; tt++) { //loop for amount of tests
18
19             System.out.println("Enter a 5-digit number: ");
20             original = s.nextLine(); //Input for number
21
22             System.out.println("The digits are: " + original);
23
24             int length = original.length(); //computes length of string
25
26             for (i = length - 1; i >= 0; i--) { //test reverse string
27                 reverse = reverse + original.charAt(i);
28             }
29
30             if (original.equals(reverse)) //compare input number to reverse number
31                 System.out.println("This number is a palindrome.");
32             else
33                 System.out.println("This number isn't a palindrome.");
34
35         }
36     }
37 }
38
39
40
```



```
1 2
3  <terminated> Palindrome [Java Application] C:\Program Files\Java\jdk1.8.0_201\bin\javaw.exe (Mar 31, 2019, 7:57:29 PM)
4  Palindrome Finder Program
5  How many time testing for palindrome?
6  5
7  Enter a 5-digit number:
8  11111
9  The digits are: 11111
10 This number is a palindrome.
11 Enter a 5-digit number:
12 12345
13 The digits are: 12345
14 This number isn't a palindrome.
15 Enter a 5-digit number:
16 12321
17 The digits are: 12321
18 This number isn't a palindrome.
```