Practice Question -2

Object Oriented Programming through Java
(CSE2016)

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Submitted by:

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Q1. Create a student class with main() inside the class. Create an object of the class to access the members through reference variable.

Code:

```
import java.util.Scanner;
public class Student {
    int rollno;
    String name;
    void get(){
        Scanner abc = new Scanner(System.in);
        System.out.println("Enter the name:- ");
        name=abc.nextLine();
        System.out.println("Enter the rollno:- ");
        rollno=abc.nextInt();
        abc.close();
    }
    void display(){
        System.out.println("The name is "+ name + " and t
he rollno is "+ rollno);
    }
    public static void main(String args[]){
        Student s1=new Student();
        s1.get();
        s1.display();
    }

}
```

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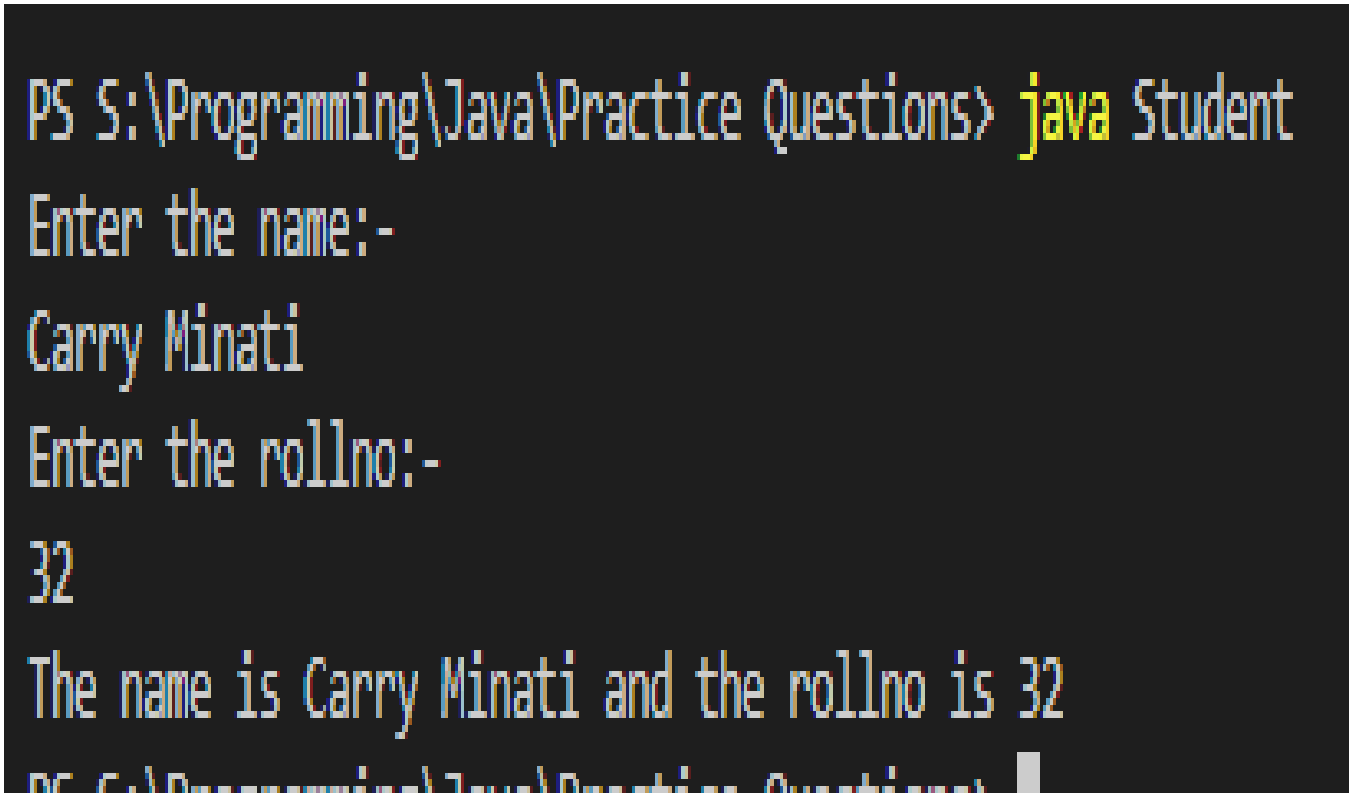
Output:



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Q2. Create a student class with main() outside the class. Create an object of the class to access the members through reference variable.

Code:

```
import java.util.Scanner;
public class Student {
    int rollno;
    String name;
    void get(){
        Scanner abc = new Scanner(System.in);
        System.out.println("Enter the name:- ");
        name=abc.nextLine();
        System.out.println("Enter the rollno:- ");
        rollno=abc.nextInt();
        abc.close();
    }
    void display(){
        System.out.println("The name is "+ name + " and t
he rollno is "+ rollno);
    }
    public static void main(String args[]){
        Student s1=new Student();
        s1.get();
        s1.display();
    }

   \\ in another file;

public class Test {
```

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```
    public static void main(String args[]){
        Student s1=new Student();
        s1.get();
        s1.display();

    }
}
```

Output:

```
PS S:\Programming\Java\Practice Questions> java Test
Enter the name:-
Quintin Terentino
Enter the rollno:-
43
The name is Quintin Terentino and the rollno is 43
```

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Q3. WAP to take a number as input and prints its multiplication table up to 10.

Code:

```
import java.util.Scanner;

public class Table {

    public static void main(String args[]){
        Scanner multi = new Scanner(System.in);
        System.out.println("Enter the number for table:");
        int num = multi.nextInt();
        System.out.println("the multiplication table upto 1
0 is:");
        for(int i=1;i<=10;i++){
            System.out.println(num + " X " + i + " = " + (nu
m*i) ) ;
        }
        multi.close();
    }

}
```

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Output:

```
Enter the number for table:
71
the multiplication table upto 10 is:
71 X 1 = 71
71 X 2 = 142
71 X 3 = 213
71 X 4 = 284
71 X 5 = 355
71 X 6 = 426
71 X 7 = 497
71 X 8 = 568
71 X 9 = 639
71 X 10 = 710
```

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Q4. WAP to swap two variables without using a third variable.

Code:

```
import java.util.Scanner;

public class Numswap {

    public static void main(String args[]){
        Scanner abc=new Scanner(System.in);
        System.out.println("Enter number 1:- ");
        int num1= abc.nextInt();
        System.out.println("Enter number 2");
        int num2=abc.nextInt();
        System.out.println("The value of number 1 is " + num1 +
 " and number 2 is " + num2 + " before swapping");
        num1=num1+num2;
        num2=num1-num2;
        num1=num1-num2;
        System.out.println("The value of number 1 is " + num1 +
 " and number 2 is " + num2 + " after swapping");
        abc.close();
    }


}
```

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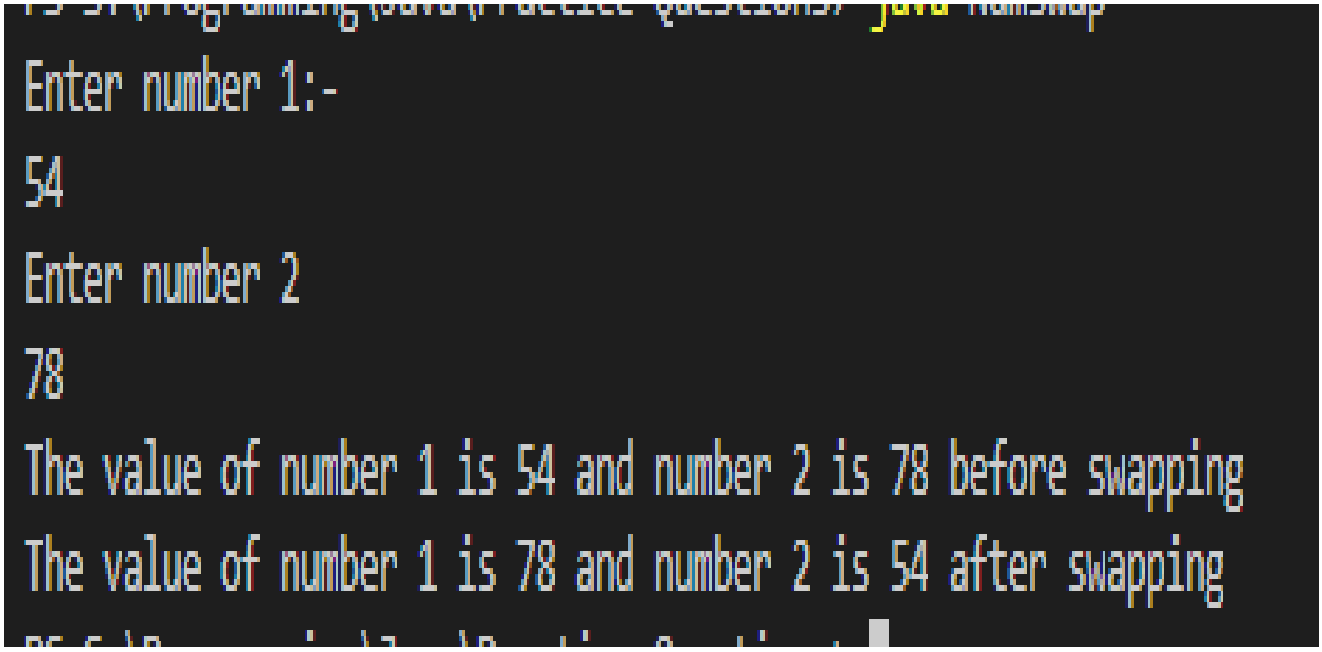
Output:



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Q5. WAP to compute the sum of the digits of an integer.

Code:

```
import java.util.Scanner;
public class Digitsum {
    public static void main(String args[]){
        Scanner abc= new Scanner(System.in);
        System.out.println("Enter the number:- ");
        int num=abc.nextInt();
        int sum=0;
        while(num>0){
            int a=num%10;
            sum=sum+a;
            num=num/10;
        }
        System.out.println("The sum of digits is:-
 " + sum);
        abc.close();
    }
}
```

Output:

```
PS S:\Programming\Java\Practice Questions> java Digitsum
Enter the number:-
56078
The sum of digits is:- 26
```

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Q6. WAP that accepts an integer (n) and computes the value of n+nn+nnn.

Code:

```
import java.util.Scanner;
public class Sum {

    public static void main(String args[]){
        System.out.println("Enter the number:- ");
        Scanner abc = new Scanner(System.in);
        int n= abc.nextInt();
        int nn=((10*n)+n);
        int nnn=((100*n)+(10*n)+n);
        int sum= n + nn+ nnn;
        System.out.println("The sum of n + nn + nnn is:-
 " + sum);
        abc.close();
    }
}
```

Output:

```
PS S:\Programming\Java\Practice Questions> java Sum
Enter the number:-
9024
The sum of n + nn + nnn is:- 1109952
PS S:\Programming\Java\Practice Questions>
```

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Q7. WAP to print the odd numbers from 1 to 99.

Code:

```
public class Oddnum {

    public static void main(String args[]){
        for(int i=1;i<100;i++){
            if(i%2!=0){
                System.out.println(i);
            }
        }
    }
}
```

Output:

```
PS S:\Programming\Java\Pr
1
3
5
7
9
11
13
15
17
19
21
23
25
27
29
31
33
35
37
39
41
43
45
47
49
51
53
```

```
47
49
51
53
55
57
59
61
63
65
67
69
71
73
75
77
79
81
83
85
87
89
91
93
95
97
99
PS S:\Programming\Java\Pr
```

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Q8. WAP to accept a number and check the number is even or not. It should print 1 if the number is even or 0 if the number is odd.

Code:

```
import java.util.Scanner;

public class Numcheck {

    public static void main(String args[]){
        Scanner abc = new Scanner (System.in);
        System.out.println("Enter a number:- ");
        int num = abc.nextInt();
        if(num%2==0){
            System.out.println("The output is 1");
        }
        else{
            System.out.println("The output is 0");
        }
        abc.close();

    }


}
```

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Output:

```
PS S:\Programming\Java\Practice Questions> java Numcheck
Enter a number:-
45
The output is 0
```

```
PS S:\Programming\Java\Practice Questions> java Numcheck
Enter a number:-
68
The output is 1
```

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Q9. WAP to convert seconds to hour, minute and seconds.

Code:

```
import java.util.Scanner;
public class Time {

    public static void main(String args[]){
        Scanner abc = new Scanner(System.in);
        System.out.println("Enter the time in seconds:- ");
        int sec= abc.nextInt();
        int hr= sec/3600;
        sec= sec%3600;
        int min=sec/60;
        sec=sec%60;
        System.out.println("the time is " + hr + " hr " + min + "
min "+ sec+ " s");
        abc.close();

    }
}
```

Output:

```
PS S:\Programming\Java\Practice Questions> java Time
Enter the time in seconds:-
6538
the time is 1 hr 48 min 58 s
```

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Q10. WAP to compute the sum of the first 100 prime numbers.

Code:

```
public class Primesum {

    public static void main(String args[]){
        int sum=0;
        int pr=1;
        int count=0;
        int i;
        for( i=2;count<=100;i++){
             pr=1;
            for(int j=2;j<i/2;j++){
                if(i%j==0){
                    pr=0;
                    break;
                }
            }
            if(pr==1){
                count++;
                sum=sum+i;
        }
        }
        System.out.println("The sum is " + sum);
    }
}
```

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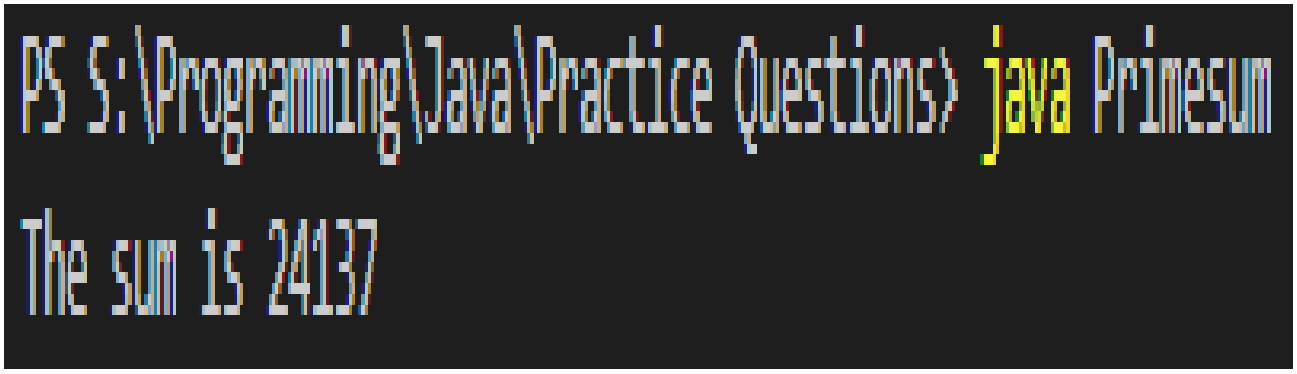
Output:



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