

Assignment No:-6

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Batch:- Delta - DCA (Java) 2024 Date:-7/5/2024

1. Write a Java program to print the reverse of all numbers between a ranges of 51 to 71.

```
import java.util.*;
public class ReverseOfGivenNumber
{
    public static void main(String[]ar)
    {
        Scanner sc = new Scanner(System.in);
        System.out.print("Enter First number :");
        int first = sc.nextInt();
        System.out.print("-----\n");
        System.out.print("Enter Last number :");
        int last = sc.nextInt();
        System.out.print("-----\n");
        int i=first;
        while(i<=last)
        {
            int temp=i,rev=0,rem=0;
            while(temp!=0)
            {
                rem=temp%10;
                rev=(rev*10)+rem;
                temp=temp/10;
            }
            System.out.print(rev+" ");
            i++;
        }
        System.out.println("\n-----");
    }
}
```

Output:

```
C:\Users\Shree\Desktop\Assingnment_Java_Codenera>javac ReverseOfGivenNumber.java
C:\Users\Shree\Desktop\Assingnment_Java_Codenera>java ReverseOfGivenNumber
Enter First number :51
-----
Enter Last number :71
-----
15 25 35 45 55 65 75 85 95 6 16 26 36 46 56 66 76 86 96 7 17
-----
```

2. Write a Java program to generate the prime numbers between 50 and 80.

```
import java.util.*;
public class PrimeNumberBetweenTwoGivenNum
{
    public static void main(String[] ar)
    {
        Scanner sc = new Scanner(System.in);
        System.out.print("Enter First number :");
        int first = sc.nextInt();
        System.out.print("-----\n");
        System.out.print("Enter Last number :");
        int last = sc.nextInt();
        System.out.print("-----\n");
        System.out.print("Prime number "+first+" To "+last+" is \n");
        System.out.print("-----\n");
        int i=first;
        while(i<=last)
        {
            int c=0,j=1;
            while(j<=i)
            {
                if(i%j==0)
                {
                    c++;
                }
                j++;
            }
            if(c==2)
            {
                System.out.print(i+" \n");
            }
            i++;
        }
        System.out.println("-----");
    }
}
```

Output:

```
C:\Users\Shree\Desktop\Assingnment_Java_Codenera>javac PrimeNumberBetweenTwoGivenNum.java
C:\Users\Shree\Desktop\Assingnment_Java_Codenera>java PrimeNumberBetweenTwoGivenNum
Enter First number :50
-----
Enter Last number :80
-----
Prime number 50 To 80 is
-----
53
59
61
67
71
73
79
-----
```

3. Write a Java program to generate non-prime numbers between 100 and 150.

```
import java.util.*;
public class NotPrimeNumberBetweenTwoGivenNum
{
    public static void main(String[]ar)
    {
        Scanner sc = new Scanner(System.in);
        System.out.print("Enter First number :");
        int first = sc.nextInt();
        System.out.print("-----\n");
        System.out.print("Enter Last number :");
        int last = sc.nextInt();
        System.out.print("-----\n");
        System.out.print("Not prime number "+first+" To "+last+" is \n");
        System.out.print("-----\n");
        int i=first;
        while(i<=last)
        {
            int c=0,j=1;
            while(j<=i)
            {
                if(i%j==0)
                {
                    c++;
                }
                j++;
            }
            if(c!=2)
            {
                System.out.print(i+" ");
            }
            i++;
        }
        System.out.println("\n-----");
    }
}
```

Output:

```
C:\Users\Shree\Desktop\Assingnment_Java_Codenera>javac NotPrimeNumberBetweenTwoGivenNum.java
C:\Users\Shree\Desktop\Assingnment_Java_Codenera>java NotPrimeNumberBetweenTwoGivenNum
Enter First number :100
-----
Enter Last number :150
-----
Not prime number 100 To 150 is
-----
100 102 104 105 106 108 110 111 112 114 115 116 117 118 119 120 121 122 123 124 125 126 128 129 130 132 133 134 135 136
138 140 141 142 143 144 145 146 147 148 150
-----
```

4. Write a Java program to generate numbers between 100 and 150 that are multiples of 7.

```
import java.util.*;
public class MultipleOfSevenBetweenTwoGivenNum
{
    public static void main(String[]ar)
    {
        Scanner sc = new Scanner(System.in);
        System.out.print("Enter First number :");
        int first = sc.nextInt();
        System.out.print("-----\n");
        System.out.print("Enter Last number :");
        int last = sc.nextInt();
        System.out.print("-----\n");
        System.out.print("multiple of 7 number "+first+" To "+last+" is \n");
        System.out.print("-----\n");
        int i=first;
        while(i<=last)
        {
            if(i%7==0)
            {
                System.out.print(i+" ");
            }
            i++;
        }
    }
}
```

Output:

```
C:\Users\Shree\Desktop\Assingnment_Java_Codenera>javac MultipleOfSevenBetweenTwoGivenNum.java
C:\Users\Shree\Desktop\Assingnment_Java_Codenera>java MultipleOfSevenBetweenTwoGivenNum
Enter First number :100
-----
Enter Last number :150
-----
multiple of 7 number 100 To 150 is
-----
105 112 119 126 133 140 147
```

5. Write a Java program to find all pairs of integers within a given range whose sum is equal to a specified number.

```
import java.util.*;
public class TakeRangeAndSumOfgivenIntegers
{
    public static void main(String[]ar)
    {
        Scanner sc = new Scanner(System.in);
        System.out.print("Enter First number :");
        int first = sc.nextInt();
        System.out.print("-----\n");
        System.out.print("Enter Last number :");
        int last = sc.nextInt();
        System.out.print("-----\n");
        System.out.print("Enter Specified number :");
        int pair = sc.nextInt();
        System.out.print("-----\n");
        System.out.print("range "+first+" To "+last+" whose sum is "+pair+" and pairs of integers is \n");
        System.out.print("-----\n");
        int i=first;
        while(i<=last)
        {
            int j=1,sum=0;
            while(j<=last)
            {
                sum=i+j;
                if(pair==sum)
                {
                    System.out.println(i+" + "+j+" = "+pair);
                }
                j++;
            }
            i++;
        }
    }
}
```

Output:

```
C:\Users\Shree\Desktop\Assingment_Java_Codenera>java TakeRangeAndSumOfgivenIntegers
Enter First number :1
-----
Enter Last number :10
-----
Enter Specified number :12
-----
range 1 To 10 whose sum is 12 and pairs of integers is
-----
2 + 10 = 12
3 + 9 = 12
4 + 8 = 12
5 + 7 = 12
6 + 6 = 12
7 + 5 = 12
8 + 4 = 12
9 + 3 = 12
10 + 2 = 12
```

6. Write a Java program to calculate the product of pairs of numbers which is equal to a target from a range of integers.

```
import java.util.*;
public class TakeRangeAndProductOfgivenIntegers
{
    public static void main(String[]ar)
    {
        Scanner sc = new Scanner(System.in);
        System.out.print("Enter First number :");
        int first = sc.nextInt();
        System.out.print("-----\n");
        System.out.print("Enter Last number :");
        int last = sc.nextInt();
        System.out.print("-----\n");
        System.out.print("Enter Specified number :");
        int pair = sc.nextInt();
        System.out.print("-----\n");
        System.out.print("range "+first+" To "+last+" whose Product is "+pair+" and pairs of integers is \n");
        System.out.print("-----\n");
        int i=first;
        while(i<=last)
        {
            int j=1,sum=0;
            while(j<=last)
            {
                sum=i*j;
                if(pair==sum)
                {
                    System.out.println(i+" * "+j+" = "+pair);
                }
                j++;
            }
            i++;
        }
    }
}
```

Output:

```
C:\Users\Shree\Desktop\Assingnment_Java_Codenera>javac TakeRangeAndProductOfgivenIntegers.java
C:\Users\Shree\Desktop\Assingnment_Java_Codenera>java TakeRangeAndProductOfgivenIntegers
Enter First number :1
-----
Enter Last number :15
-----
Enter Specified number :12
-----
range 1 To 15 whose Product is 12 and pairs of integers is
-----
1 * 12 = 12
2 * 6 = 12
3 * 4 = 12
4 * 3 = 12
6 * 2 = 12
12 * 1 = 12
```


7. Write a Java program to find the palindrome numbers between 10 to 100.

```
import java.util.*;
public class PalindromeBetweenTwoGivenNum
{
    public static void main(String[]ar)
    {
        Scanner sc = new Scanner(System.in);
        System.out.print("Enter First number :");
        int first = sc.nextInt();
        System.out.print("-----\n");
        System.out.print("Enter Last number :");
        int last = sc.nextInt();
        System.out.print("-----\n");
        System.out.print("Palindrome number "+first+" To "+last+" is \n");
        System.out.print("-----\n");
        int i=first;
        while(i<=last)
        {
            int j=i;
            int rem=0,rev=0,temp=i;
            while(temp!=0)
            {
                rem=temp%10;
                rev=(rev*10)+rem;
                temp=temp/10;
            }
            if(rev==j)
            {
                System.out.print(rev+" ");
            }
            i++;
        }
    }
}
```

Output:

```
C:\Users\Shree\Desktop\Assingnment_Java_Codenera>javac PalindromeBetweenTwoGivenNum.java
C:\Users\Shree\Desktop\Assingnment_Java_Codenera>java PalindromeBetweenTwoGivenNum
Enter First number :1
-----
Enter Last number :100
-----
Palindrome number 1 To 100 is
-----
1 2 3 4 5 6 7 8 9 11 22 33 44 55 66 77 88 99
```