Assignment on Java

Name: Nehaa Sharma

Registered e-mail: nehabhardwaj0167@gmail.com

1. Write a Java program to reverse a string with and without reverse() function

With reverse() function

```
package com.Myjava;


public class ReverseMyName {
    public static void main(String[] args) {
        String name= "Neha Sharma";

        StringBuilder name1 = new StringBuilder(name);
        String reversed = name1.reverse().toString();

        System.out.println("Original Name: " + name);
        System.out.println("Reversed Name: " + reversed);
    }
}
```

Without resverse function:

```
package com.Myjava;

public class ReverseName {
    public static void main(String[] args) {
        String name = "Neha Sharma";
        String reversedName = " ";

        for (int i = name.length() - 1; i >= 0; i--) {
            reversedName = reversedName + name.charAt(i);
        }

        System.out.println("Original Name: " + name);
        System.out.println("Reversed Name: " + reversedName);
    }
}
```

2. Write a Java Program to find prime numbers between 1 to 100

```
package com.Myjava;


public class PrimeNumbers {
    public static void main(String[] args) {

        System.out.println("Prime numbers between 1 and 100:");

        for (int a = 2; a <= 100; a++) {
            boolean P = true;

            for (int i = 2; i <= a / 2; i++) {
                if (a % i == 0) {
                    P = false;
                    break;
                }
            }

            if (P) {
                System.out.print(a + " ");
            }
        }
```

```
    }
}
```

3. Write a Java Program to handle given uncheck exception

a.ArrayIndexOutOfBound

b.NullPointerException

ans(a)

```
package com.Myjava;



public class javaAss3 {

    public static void main(String[] args) {


                int[] numbers = {10, 20, 30};

                try {
                    System.out.println(numbers[5]);
                } catch (ArrayIndexOutOfBoundsException e) {
                    System.out.println("Invalid Array Index");
                }

                System.out.println("Try Putting Valid Index");
            }


            }
```

ans(b)

```
package com.Myjava;



public class javaAss3 {
public static void main(String[] args) {
```

```
    String name = null;

    try {
        System.out.println(name.length());
    } catch (NullPointerException e) {
        System.out.println("Caution: The value is null.");
    }

    System.out.println("Try putting valid value");
}

}
```

4.Write a Java Program to sort the ArrayList in Ascending order

```
package com.Myjava;

import java.util.ArrayList;
import java.util.Collections;

public class javaAss3 {
public static void main(String[] args) {
    ArrayList<Integer> list = new ArrayList<>();

    list.add(60);
    list.add(10);
    list.add(40);
    list.add(20);
    list.add(30);
    list.add(50);


    System.out.println("Random Numbers: " + list);

    Collections.sort(list);

    System.out.println("Numbers in Ascending order: " + list);
```

```
}

}
```

5.Write a Java Program to implement multiple inheritance

```
package com.Myjava;


interface Camera {
void takePhoto();
}

interface MusicPlayer {
void playMusic();
}

class SmartPhone implements Camera, MusicPlayer {
public void takePhoto() {
    System.out.println("Capturing photo");
}

public void playMusic() {
    System.out.println("Playing music");
}


}

public class javaAss3 {
public static void main(String[] args) {
SmartPhone phone = new SmartPhone();
phone.takePhoto();
phone.playMusic();
}
}
```