

Name = Babar Zareen

Sap ID = 74760

Lab Task

Question No = 01

PRIME NUMBER CODE:

```
PrimeNumber.java :
1 import java.util.Scanner;
2 public class PrimeNumber {
3     public static void main(String[] args) { //name Babar Zareen Sap id 74760
4         Scanner sc = new Scanner(System.in);
5         int n, i;
6         boolean isPrime = true;
7         System.out.print("Enter number: ");
8         n = sc.nextInt();
9         if (n <= 1) {
10             isPrime = false;
11         }
12         for (i = 2; i <= n / 2; i++) //name Babar Zareen Sap id 74760
13         {
14             if (n % i == 0)
15             {
16                 isPrime = false;
17                 break;
18             }
19         }
20         if (isPrime)
21             System.out.println("Prime Number");
22         else
23             System.out.println("Not Prime");
24     }
25 }
```

Question No = 02

LENGTH OF ARRAY CODE:

```

ArrayLength.java :
1 public class ArrayLength
2 {
3
4     public static void main(String[] args)
5     {
6
7         int[] arr = {10, 20, 30, 40, 50};    // name Babar Zareen
8         int length = arr.length;            // Sap Id 74760
9
10        System.out.println("Length = " + length);
11    }
12 }

```

Question No = 03

PALINDROME NUMBER CODE:

```

Palindrome.java :
1 import java.util.Scanner;    // Name Babar Zareen sap ID 74760
2
3 public class Palindrome {
4     public static void main(String[] args) {
5         Scanner sc = new Scanner(System.in);
6         int n, rev = 0, temp, digit;
7         System.out.print("Enter number: ");
8         n = sc.nextInt();
9
10        temp = n;                // Name Babar Zareen
11        while (n > 0) {          // sap ID 74760
12            digit = n % 10;
13            rev = rev * 10 + digit;
14            n = n / 10;
15        }
16
17        if (temp == rev)
18            System.out.println("Palindrome");
19        else
20            System.out.println("Not Palindrome");
21    }
22 }

```

Question No = 04

FACTORIAL USING FUNCTION CODE:

```
Factorial.java :
1 import java.util.Scanner;           // Name Babar Zareen sap ID 74760
2
3 public class Factorial {
4
5     static int factorial(int n) {
6         int fact = 1;
7
8         for (int i = 1; i <= n; i++) { // Name Babar Zareen
9             fact = fact * i;          // sap ID 74760
10        }
11
12        return fact;
13    }
14
15    public static void main(String[] args) {
16
17        Scanner sc = new Scanner(System.in);
18
19        System.out.print("Enter number: ");
20        int num = sc.nextInt();
21
22        System.out.println("Factorial = " + factorial(num));
23    }
24 }
```

Question No = 05

SWAPPING NUMBERS CODE:

(a) Using 2 Variables:

```

SwapTwo.java :
1 public class SwapTwo {           //Name Babar Zareen Sap ID 74760
2
3     public static void main(String[] args) {
4
5         int a = 5, b = 10;
6
7         a = a + b;           //Name Babar Zareen
8         b = a - b;           //Sap ID 74760
9         a = a - b;
10
11         System.out.println("a = " + a);
12         System.out.println("b = " + b);
13     }
14 }

```

Question No = 05

SWAPPING NUMBERS CODE:

(b) Using 3 Variables

```

SwapThree.java :
1 public class SwapThree
2 {
3
4     public static void main(String[] args)
5     {
6
7         int a = 5, b = 10, temp;
8
9         temp = a;           // Name Babar Zareen
10        a = b;               // sap ID 74760
11        b = temp;
12
13        System.out.println("a = " + a);
14        System.out.println("b = " + b);
15    }
16 }

```

Question No = 06

PATTERN (Nested Loop) CODE:

*
**


```
Pattern.java :
1 public class Pattern           // Name Babar zareen sap ID 74760
2 {
3
4     public static void main(String[] args)
5     {
6
7         for (int i = 1; i <= 5; i++)
8         {
9             // Name Babar zareen
10            // sap ID 74760
11            for (int j = 1; j <= i; j++)
12            {
13                System.out.print("*");
14            }
15            System.out.println();
16        }
17    }
```

Question No = 07

LIBRARY MANAGEMENT SYSTEM CODE:

2 CLASS : BOOK & STUDENT:

Library.java :

```
1 import java.util.*; //Name Babar Zareen sap ID 74760
2
3 class Book {
4     int id;
5     String name;
6     boolean issued = false;
7 }
8 class Student { //Name Babar Zareen
9     int id; //sap ID 74760
10    String name;
11 }
12 public class Library {
13     public static void main(String[] args) {
14
15         Scanner sc = new Scanner(System.in); //Name Babar Zareen sap ID 74760
16
17         Book b = new Book();
18         Student s = new Student();
19
20         System.out.print("Enter Book ID: ");
21         b.id = sc.nextInt();
22         sc.nextLine();
23         System.out.print("Enter Book Name: ");
24         b.name = sc.nextLine();
25
26         System.out.print("Enter Student ID: "); //Name Babar Zareen
27         s.id = sc.nextInt(); // sap ID 74760
28         sc.nextLine();
29         System.out.print("Enter Student Name: ");
30         s.name = sc.nextLine();
31
32         b.issued = true;
33         System.out.println("\nBook Issued Successfully!");
34         System.out.println("Student: " + s.name);
35         System.out.println("Book: " + b.name);
36     }
37 }
```

