Advanced Programming Lab 1

1. Write a simple program that prints your name and ID

Answer:

```
public class task1 {
   public static void main(String[] args){
        System.out.println ("My name is : Aporna Bhoumick");
        System.out.println ("ID : 22234103264");
   }
}
```

2. Create a basic calculator for addition, subtraction, multiplication, and division.

Answe

```
import java.util.Scanner;
import static java.lang.System.*;
public class task2 {
   public static void main(String[] args){
        int add, sub, mul,div;
        int a = 6, b= 4;
        Scanner input = new Scanner (in);
        System.out.print("Which function are you locking for: ");
        int fun = input.nextInt();
        if (fun == 1) {
            add = a + b;
            System.out.println(add);
        }
        else if (fun == 2)
        {
            sub = a-b;
            System.out.println(sub);
        }
        else if (fun == 3)
        {
            mul = a*b;
            System.out.println(mul);
        }
        else if (fun == 4)
        {
            div = a/b;
            System.out.println(div);
        }
        else
        {
            System.out.println("No function available");
        }
   }
}
```

3. Create a program that finds the maximum and minimum values in an array of

Integers.
Answer:
```
import java.util.Scanner;
public class task3 {
   public static void main(String[] args) {
        Scanner input = new Scanner(System.in);
        System.out.print("Enter the array size: ");
        int n = input.nextInt();
        int[] arr = new int[10];
        int max = 0;
        int min = 1000;
        System.out.println("Enter the Array elements : ");
        for (int i = 0; i < n; i++) {
            arr[i] = input.nextInt();
            if (arr[i] > max) {
                max = arr[i];
            }
            if (arr[i] < min) {
                min = arr[i];
            }
        }
            System.out.println("The maximum number : " + max);
            System.out.println("The miniimum number : " + min);
   }
}
```

4. Write a program that can print a “Chessboard” like below:
1 0 1 0 1 0 1 0
0 1 0 1 0 1 0 1
1 0 1 0 1 0 1 0
0 1 0 1 0 1 0 1
1 0 1 0 1 0 1 0
0 1 0 1 0 1 0 1
1 0 1 0 1 0 1 0
0 1 0 1 0 1 0 1
Here,
1 represents black squares
0 represents white squares
Answer;
```
public class task4 {
   public static void main(String[] args) {
        int row = 8, column = 8;
        int twod[][] = new int[row][column];
        for (int i = 0; i < row; i++) {
            for (int j = 0; j<column; j++)
            {
                if ((i + j) % 2 == 0) {
                    System.out.print("1 ");
```

```
                } else {
                    System.out.print("0 ");
                }
            }
            System.out.println();
        }
    }
}
```

5. Create a program that finds the maximum and minimum values in an array of integers.

Answer;

```
import java.util.Scanner;
public class task5 {
    public static void main(String[] args) {
        Scanner input = new Scanner(System.in);
        System.out.print("Enter the array size: ");
        int n = input.nextInt();
        int[] arr = new int[10];
        int sum = 0;
        System.out.println("Enter the Array elements : ");
        for (int i = 0; i < n; i++) {
            arr[i] = input.nextInt();
                sum = sum + arr[i];
            }
        System.out.println("The Sum : " + sum);
        }
    }
```