JAVA WEEK-2

NAME: ADITHYA M
SRN: PES2UG19CS015
SECTION: A

CODE SS: -

```java
import java.util.Scanner;


public class TQManager

{

    public static void main(String[] args) {

        Scanner s_obj = new Scanner(System.in);

            System.out.print("Enter the number of questions: ");

            int numquest = s_obj.nextInt();

            TestQuestion[] q_paper = new TestQuestion[numquest];

            int i=0,opt;

            String call;

            while(i<numquest)

            {

                System.out.print("\nEnter 1 for Short Answer, 2 for Long Answer, 3 for MCQ: ");

                opt=s_obj.nextInt();

                switch(opt){

                    case 1: q_paper[i]=new ShortAnswer();

                        q_paper[i].readQuestion();

                        i++;
```

```java
                        break;

            case 2: q_paper[i]=new LongAnswer();

                    q_paper[i].readQuestion();

                    i++;

                    break;

            case 3: q_paper[i]=new MCQ();

                    q_paper[i].readQuestion();

                    i++;

                    break;

            default: System.out.println("Invalid option, choose
again");

                }

            }

            System.out.println("\nQuestion Paper:-");

            for(int j=0;j<numquest;j++)

            {

                call=q_paper[j].toString();

            }

        }

}


abstract class TestQuestion

{

        String question;
```

```java
        abstract void readQuestion();
}


class ShortAnswer extends TestQuestion
{
        int numLines;
        void readQuestion()
        {
                numLines=1;
                Scanner s_obj1=new Scanner(System.in);
                System.out.print("Enter question: ");
                question=s_obj1.nextLine();
        }
        public String toString()
        {
                System.out.println("Short Answer Question - "+question);
                System.out.println("Number of lines - "+numLines);
                return "Success";
        }
}


class LongAnswer extends TestQuestion
{
        int numLines;
```

```java
        void readQuestion()
        {
                Scanner s_obj2=new Scanner(System.in);
                System.out.print("Enter question: ");
                question=s_obj2.nextLine();
                System.out.print("Enter number of lines: ");
                numLines=s_obj2.nextInt();
        }
        public String toString()
        {
                System.out.println("Long Answer Question - "+question);
                System.out.println("Number of lines - "+numLines);
                return "Success";
        }
}

class MCQ extends TestQuestion
{
        int numChoices;
        String[] choices;
        void readQuestion()
        {
        Scanner s_obj3=new Scanner(System.in);
        System.out.print("Enter question: ");
```

```java
        question=s_obj3.nextLine();

        System.out.print("Enter number of choices: ");

        numChoices=s_obj3.nextInt();

        s_obj3.nextLine(); //as the scanner takes only the integer from
the input line but leaves \n

        choices = new String[numChoices];

        System.out.println("Enter the choices: ");

        for(int i=0;i<numChoices;i++)

        {

                System.out.print("Choice "+(i+1)+":");

                choices[i]=s_obj3.nextLine();

        }

    }

    public String toString()

    {

    System.out.println("MCQ - "+question);

    System.out.println("Number of choices - "+numChoices);

    System.out.println("Choices - ");

    for(int i=0;i<numChoices;i++)

    {

        System.out.println(choices[i]);

    }

    return "Success";

    }
```

}

OUTPUT SS: -

```
C:\Users\Adhi\Documents\1styeart\sem6\java lab\week2>java TQManager.java
Enter the number of questions: 3

Enter 1 for Short Answer, 2 for Long Answer, 3 for MCQ: 1
Enter question: What is your name?

Enter 1 for Short Answer, 2 for Long Answer, 3 for MCQ: 2
Enter question: Explain your family background.
Enter number of lines: 5

Enter 1 for Short Answer, 2 for Long Answer, 3 for MCQ: 3
Enter question: Is java a compiler or interpreter language?
Enter number of choices: 3
Enter the choices:
Choice 1:Compiler
Choice 2:Intepreter
Choice 3:Both

Question Paper
Short Answer Question - What is your name?
Number of lines - 1
Long Answer Question - Explain your family background.
Number of lines - 5
MCQ - Is java a compiler or interpreter language?
Number of choices - 3
Choices -
Compiler
Intepreter
Both
```