

ASSIGNMENT 1

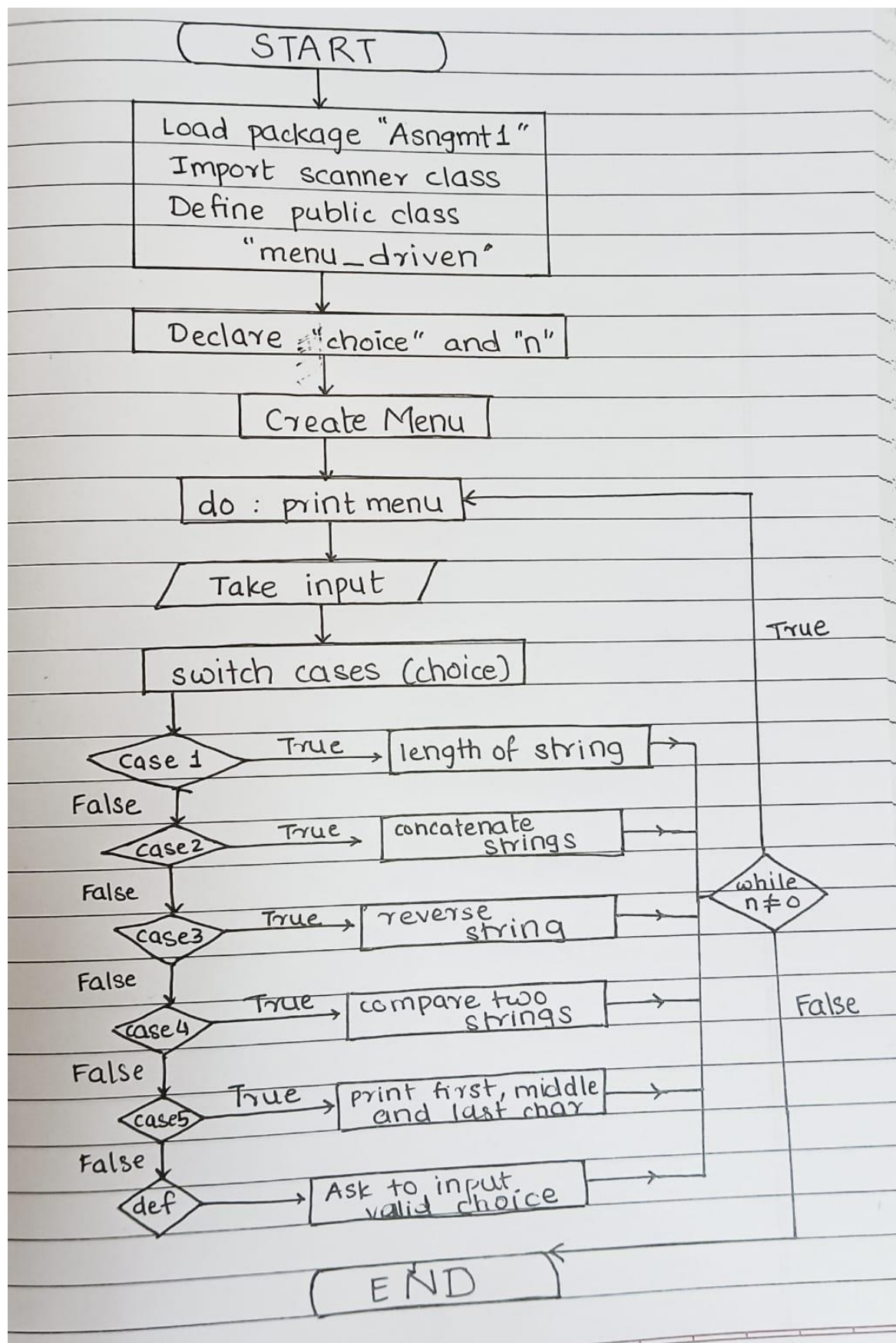
Java Program: (Menu-driven) input Strings from User

0. Exit
1. Length of a String
2. Concatenation of two Strings
3. Reverse the String
4. Compare two Strings
5. Get the first middle and last letter of a String

Algorithm

1. Define scanner and integral variables 'choice' and 'n'.
2. Print menu for the user and input a value for selection.
3. Using switch(choice) define each case for length, concatenation, reversal, comparison, first middle and last letter.
4. Use a break statement at the end of the above cases and default case (for invalid selection).
5. Use a do while loop with int variable 'n' to give user the choice to exit the program.
6. While n is not equal to zero, Do the cases.
7. When n becomes zero, the program terminates

Flowchart



Code

```
package Asngmt1;
import java.util.Scanner;
public class menu_driven
{

    public static void main(String[] args)
    {
        Scanner sc = new Scanner(System.in);
        int choice, n;

        System.out.println("1. Length of String");
        System.out.println("2. Concatenation of two Strings");
        System.out.println("3. Reverse the String");
        System.out.println("4. Compare two Strings");
        System.out.println("5. Get the first middle and last
        letter of      a String");

        do{
            System.out.println("Enter choice number : ");
            choice = sc.nextInt();

            switch(choice)
            {

                case 1 :
                    Scanner sc1 = new Scanner(System.in);
                    System.out.println("Enter a String : ");
                    String s = sc1.nextLine();
                    int len = s.length();
                    System.out.println("The length of String is : " +len);
                    break;
```

```
case 2 :
Scanner sca2 = new Scanner(System.in);
System.out.println("Enter first String : ");
String s1 = sca2.nextLine();
System.out.println("Enter second String : ");
String s2 = sca2.nextLine();
String con = s1 + " " + s2;
System.out.println("On joining the strings are : "
+con);
break;
```

```
case 3 :
Scanner sca3 = new Scanner(System.in);
System.out.println("Enter a string : ");
String s3 = sca3.nextLine();
String rev = "";
int leng = s3.length();
for(int i=leng-1; i>=0; i--)
{
rev = rev + s3.charAt(i);
}
System.out.println("The reverse is " + rev);
break;
```

```
case 4 :
Scanner sca4 = new Scanner(System.in);
System.out.println("Enter first String : ");
String s4 = sca4.nextLine();
System.out.println("Enter second String : ");
String s5 = sca4.nextLine();
int comp = s5.compareTo(s4);
System.out.println(comp);
if(comp==0)
{
System.out.println("Strings are equal");
}
else
{
System.out.println("Strings are unequal");
}
break;
```

```

case 5 :
Scanner sca5 = new Scanner(System.in);
System.out.println("Enter a string : ");
String s6 = sca5.nextLine();
int le = s6.length();
System.out.println("The      first      char      is:
"+s6.charAt(0));
System.out.println("The      middle      char      is:
"+s6.charAt((le-1)/2));
System.out.println("The last char is: "+s6.charAt(le-
1));
break;

default :
System.out.println("Enter    only    mentioned    choice
numbers.");
}

System.out.println("Do you want to continue? Press 1
for Yes, Press 0 for No.");
n = sc.nextInt();
}

while (n!=0);

}
}

```

Output

1. Length of String
2. Concatenation of two Strings
3. Reverse the String
4. Compare two Strings
5. Get the first middle and last letter of a String

Enter choice number :

1

Enter a String :

Howdy roomie!

The length of String is : 13

Do you want to continue? Press 1 for Yes, Press 0 for No.

1

Enter choice number :

2

Enter first String :

Hello

Enter second String :

Brother.

On joining the strings are : Hello Brother.

Do you want to continue? Press 1 for Yes, Press 0 for No.

1

Enter choice number :

3

Enter a string :

Anagram

The reverse is marganA

Do you want to continue? Press 1 for Yes, Press 0 for No.

1

Enter choice number :

4

Enter first String :

Good

Enter second String :

Evil

-2

Strings are unequal

Do you want to continue? Press 1 for Yes, Press 0 for No.

1

Enter choice number :

5

Enter a string :

Beginning, Middle, End.

The first char is: B

The middle char is: M

The last char is: .

Do you want to continue? Press 1 for Yes, Press 0 for No.

0