Aim:

To write a Java program for Calculating Students grade based on marks

Pseudo Code:

Step 1: initialize the variables

Step 2: get the input marks from the user

Step 3: based on the marks Category assign the grade for eg if marks > 90 grade- A

Step 4: Print the grade

Program:

```
Package assignment;
import java.util.Scanner;
Public class Grade {
    public static void main (String[] args) {
        Scanner input = new Scanner(System.in);
        System.out.print ("enter your marks: ");
        int m = input.nextInt();
        char grade;
        if (m>= 90)
            grade = 'A';
        else if (m< 90 && m>= 80)
            grade = 'B';
        else if (m< 80 && m>= 70)
            grade = 'C';
```

```
        else if (m<70 && m>=60)
            grade = 'D';
        else
            grade = 'F';
        System.out.print ("Grade = " + grade);
        }
    }
```

Sample output:

enter your marks : 74
Grade = C

2. Aim:

To write Java program for guessing a simple
number between 1 and 10

Pseudo Code:

Step 1: assign the Variables

Step 2: using random function assingn any number
between 1 to 10

Step 3: ask the user to guess that number - give 3
chances to user using for loop

Step 4: if number is Smaller, greater or equal print
the statement

Step 5: If user lost then print the system guessed
number

Program:

```java
import java.util.Scanner;
public class number-guess {
    public static void main (String[] args) {
        Scanner input = new Scanner (System.in);

        Random random = new Random();
        System.out.print ("guess any number between 1 to 10: ");
        int r = random.nextInt(10) + 1;
        int i;
        for (i=0; i<3; i++)
        {
            int a = input.nextInt();
            if (r>a)
            {
                System.out.print ("too low");
            }
            else if (r<a)
            {
                System.out.print ("too high");
            }
            else
            {
                System.out.print ("you win");
                System.exit(0);
            }
            if (i<2)
            System.out.print (" Intry again: ");
        }
```

```
if (i>=3)
{
    System.out.print("\n you lost \n System guessed "+r
                     + " better luck next time");
}
}
}
```

Sample Output:

guess any number between 1 to 10 : 7

too high

try again: 5

too low

try again: 8

too high

you lost

System guessed 6. better luck next time

3. Aim:

To write Java Program for generating and displaying the multiplication table

Pseudo Code:

Step 1: Initialize the variables

step 2: get the input number from the user

step 3: using for loop generate the multiplication table
by multiplying i with number

step 4: display the multiplication table

Program:

```java
import java.util. Scanner
public class multiplication-table {
    public static void main (String[] args) {
        Scanner input = new Scanner (System.in);
        System.out.print ("enter the number: ");
        int a = input.nextInt ();
        for (int i=1; i<10; i++)
        {
            System.out.println (a+ "*"+i+ " = "+a*i);
        }
    }
}
```

Sample output:

```
enter the number: 7

7 * 1 = 7
7 * 2 = 14
7 * 3 = 21
7 * 4 = 28
7 * 5 = 35
7 * 6 = 42
7 * 7 = 49
7 * 8 = 56
7 * 9 = 63
7 * 10 = 70
```

4. **Aim:**

To write Java Program for Even and Odd Counter

Pseudo Code :

Step 1: initialize the variables

Step 2: declare some numbers in array.

Step 3: Check each number is divisible by 2

Step 4: if divisible then it is even else it is odd number

Program :

```java
import java.util.Scanner;
public class even-odd-Count {
    public static void main (String[] args) {
        Scanner input = new Scanner (System.in);
        int[] a = { 2,3,4,5,6 };
        int ec = 0, oc = 0;
        for (int i = 0; i<a-length; i++)
        {
            if (a[i] % 2 ==0)
            {
                ec++;
            }
            else
            {
                oc++;
            }
        }
        System.out.print ("number of even numbers = "+ec);
        System.out.print ("number of odd numbers = "+oc);
    }
}
```

Sample Output:

number of even numbers = 3

number of odd numbers = 2

5. Aim:

To write Java program for simulating a basic ATM System

Pseudo Code:

```
import java.util.Scanner;
public class atm {
    public static void main (String[] args) {
        Scanner input = new Scanner (System.in);
        int i = 1000;
        boolean ch = true;
        while (ch) {
            System.out.println ("choose the operation\n 1. Deposit\n
                                 2. With Draw\n 3. Check Balance \4.exit");
            int a = input.nextInt();
            if (a == 1)
            {
                System.out.print ("enter the amount to deposit : ");
                int d = input.nextInt();
                int += d;
                System.out.print ("\nAmount Deposited Successfully");
            }
            else if (a == 2)
            {
                System.out.print ("enter the amount to withdraw: ");
```

```
        int w = input.nextInt();
        if (in > w)
        in -= w;
        else
            System.out.print("Insufficient Balance\n");
        System.out.print("Balance updated Successfully\n");
        }
        else if (a == 3)
        {
            System.out.print("\n Your Balance : "+int+"\n");
        }
        else
        {
            System.out.print("Closing....");
            System.exit(0);
        }
      }
    }
  }
}
```

Sample output:

Choose the Operation 1. Deposit 2. With Draw 3. Check Balance
                            4. exit

1 enter the amount to deposit : 200

Choose the Operation : 2

enter the amount to withdraw : 150

Balance updated Successfully

Choose the Operation : 3

Available Balance : 1050

Choose the operation : 4

Closing....