ASSIGNMENT-1

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Java programming

1) **Aim:-** To write a java program for calculating students grade based on marks.

Pseudo code:

step 1:- Initialise 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:

```
import java.util.scanner;
public class Grade{
   public static void main (String [] args){
        scanner input = new scanner (system.in);
        System.out.println("enter marks:");
       int m= input.next int();
       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.println("Grade = "+grade);
    }
}
```

Sample output: Enter 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 functions assign any number between 1 to 10.
Step 3:- Ask the user to guess that number given 3 chances to users.
Step 4:- If number is smaller, greator or equal to print statement.
Step 5:- If user lost print system guessed number.

Program:

```
import java.util.scanner;
public class number_guess {
    public static void main(String[] args){
    scanner input = new Scanner(System.in);
    Random random = new Random();
```

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 numbers from the user.

step 3:- using for loop generate the multiplication i with number.

step 4:- display the multiplication Table.

program:-

```
import java.util.scanner;
public class multable{
    public static void main(string[] args){
Scanner input = new scanner (system.in);
system.out.println("enter number:");
int a=input.nextInt();
for(int i=1;i<10;i++)
{system.out.println(a+"*"+i+"="+a*i);
}
}
}
```

sample output:

```
enter number:5
5*1=5
5*2=10
5*3=15
5*4=20
5*5=25
5*6=30
5*7=35
5*8=40
5*9=45
5*10=50
```

```
system.out.println ("guess any number blw
                    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.println ("too low");
     }
    system.out.println ("too high");
     }
    else
     { system.out.println ("you won");
       system.exit(0);
     }
   if (i<2) {
    system.out.println ("in try again:");
   }
   if (i>=3)
    { system.out.println ("you lost in system.que-
                -ssed" +r..+ " better luck nex time");
    }
  }
}
```

sample output:

```
Guess any number blw 1 to 10:7
  too high
try again:5
  too low
try again:8
  too high.
```

4) Aim:- To write java program for even and odd counter.

Pseudo code:

step 1:- intialize the variable.

step 2:- declare some number 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:-

```
import java.util.scanner;
    public class even_odd_count {
    public static void main (string[] arg s) {
    scanner. input =new scanner (system.in);
    int [] = { 2,3,4,5, 6};
    int e c =0, oc = 0;
   for (int i=0; i<a.length; i++)
   {
      if (a [i] .%.2 ==0)
    }
    {  ec++;
    }
   else
    { oc + 7;
      }
   }
   system.out.print ("number of even num-
       -ber = "+e c);
  system. out. println ("number of add num-
            -bers = " + c);
```

```
    }
}
```

output:

number of even number = 3

number of odd numbers = 2

5) Aim:- To write java program for simulating a basic ATM system.

program:

```
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 oper \n\n
        1. deposit \n 2. withdraw \n 3. check bal \n
         4. exit);
    int a = input.next Int();
      if (a==1)
    { system.out.println ("enter the amount to
            deposit : ");
```

```
int d = input.nextInt();
int =d;
System.out.print ("\n Amount deposited succe-
                    -essfully");
}
else if (a==2)
{ system.out.print ("enter the amount to
   withdraw : ");
int w= input.nextInt();
if (in>w)
  in==w;
else
system.out.println ("\n sufficient balance\n");
system.out.println ("Balance updated succes-
                    -fully\n ");
  }
else if (a==3)
{ system.out.println ("\n your Balance :"
                    +int "\n");
}
else
{ system.out.print (" closing....");
}
system.exit (0);
  }
}
}
```

sample input:

Choose the operation
1. deposit
2. withdraw
3. check balance
4. exit

1) Enter amount to deposit : 200

Choose operation : 2

Enter amount to withdraw : 150

Balance updated succesfully.

Choose the operation : 3

Available Balance : 1050

Choose the operation : 4

closing---