CSA0214 - Java Programming

① STUDENT GRADING SYSTEM

Design a Java program that takes a student's score as input and outputs corresponding grade using an if else control structure.

```
import java.util.Scanner; Public Class StudentGrading System {
Public Stass static void main (String[] args {
    Scanner scanner = new Scanner (System.in);
    String ContinueInput;
    do{
        System.out.print("enter Student's score: ");
        int score = Scanner.nextInt();
        Char grade)
        if (score >= 90){
            grade = 'A';
    } else if (score >= 80){
            grade = 'B';
    } else if (score >= 70){
            grade = 'C';
    } else if (score >= 60){
            grade = 'd';
    } else {
            grade = 'f'; }
    System.out.Println("Grade: " + grade);
     ContinueInput = Scanner.next();
  } while (ContinueInput.equalIgnoreCase("yes"));
    Scanner.Close();
    }
}
```

②

NT-01

Ch. Viswas
192211582
CSA0914

② NUMBER GUESSING GAME

Implement Java program that generates random no btw 1 to 10. Use loop that player get 3 attempts to guess no. After incorrect guess, give hint.

```
import. java. util.Random;
import . java .util. Scanner;
Public Class NumberGuessingGame {
    Public Static void main (String[] Args) {
        Random rand = new Random();
        Scanner Scanner= new Scanner (System.in);
        boolean PlayAgain = true;
    while (PlayAgain) {
        int numberToGuess = rand . nextInt (10) + 1;
        int attempts = 0;
    System.out. println ("Guess a no between 1 and 10");
    for ( attempts < 3; attempts++) {
      int playGeess = Scanner.nextInt();
      if (playerGuess == numberToGuess) {
    System.out . println("Correct you gusses in it" + (attempts +1)+ attempt
    break;
    } else {
        System.out . print ("Too high");
    }
    }
            String response = scanner.next();
            PlayAgain = response . equalIgnore Case ("yes"); }
            Scanner. Close(); }
        }
```

③ MULTIPLICATION TABLE GENERATOR

Create a java program to generat & display the multiplication table for number.

```
import.java.util.Scanner;
Public class MultiplicationTableGenerator{
  Public Static void main(String [] Args){
    Scanner.Scanner = new Scanner(System.in);
   System.out.Println("enter number");
   int number= Scanner.nextInt();
   int range= Scanner.nextInt();
System.out.Print("Mul table "+ number+ "from 1 to"
                                  + range+".");
  for (int i=1; i<=range; i++){
   System.out.Print(number +"x"+i+"="+ );}
  Scanner.close(); }
}
```

④ Even and Odd number Counter

Develop a java program that takes an array of Integers as Input and uses a loop to count how many even & odd nums in array.

```
Public class EvenOddCounter{
  Public Static void main (String[]args){
    int[] n = {2,3,4,5,6}
    int EvenCount=0, odd count=0;
    int EvenSum=0, oddSum=0;
for (int num :: numbers){
    if(num % 2==0){
      EvenCount ++;
      Even Sum+= num;
   } else{
      odd Count ++;
      odd Sum += num;
   }
}
  System.out.Println("even count"+ even count
  + "odd count: "+odd Count");
 System.out.Println ("Even sum:" + even sum +
" odd sum" + oddsum); }
}
```

⑤ SIMPLE ATM SIMULATION

write a java program to present menu to the user using a switch statement. Based on users selection the program should perform the action: Check balance, deposite money or withdraw money.

```
  Public Static Simple ATM{
 Public Static void main(String[] args){
 Scanner s= new Scanner (system.in);
  double balance= 1000.0;
 int Choice;
 do{
  System.out.Println(" \n.Check Balance");
 System.out.println("\n.Deposite money");
 System.out.Println("." Exit");
 System.out.Println ("select option");
 Choice= S.nextInt();
```

```
switch (choice){
  case 1:
    System.out.println("Balance: $" + Balance);
  break;
case 2:
  System.out.println("Deposite amount: $");
  balance += s.nextDouble();
  Break;
case 3:
  System.out.println("withdraw amount: $");
  double amount = s.nextDouble();
  if (amount > Balance) {
System.out.println("Insufficient Balance");
} else {
    balance = = amount;
  System.out.println("new Balance;" + Balance);
} break;
case 4:
  System.out.println("Good Bye!");
  break;
default:
System.out.println("Invalid option");
}
} while (choice != 4);
    close();
  }
}
```