**ASSIGNMENT -2**

**CSA0985**

**PROGRAMMING IN JAVA**

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1. **Write a program for Bank Management System using classes and object?**

import java.util.Scanner;

class Bank

{

private String accno;

private String name;

private long balance;

Scanner KB = new Scanner(System.in);

void openAccount()

{

System.out.print("Enter Account No: ");

accno = KB.next();

System.out.print("Enter Name: ");

name = KB.next();

System.out.print("Enter Balance: ");

balance = KB.nextLong();

}

void showAccount()

{

System.out.println(accno + "," + name + "," + balance);

}

void deposit()

{

long amt;

System.out.println("Enter Amount U Want to Deposit : ");

amt = KB.nextLong();

balance = balance + amt;

}

void withdrawal()

{

long amt;

System.out.println("Enter Amount U Want to withdraw : ");

amt = KB.nextLong();

if (balance >= amt)

{

balance = balance - amt;

}

else

{

System.out.println("Less Balance..Transaction Failed..");

}

}

boolean search(String acn) {

if (accno.equals(acn)) {

showAccount();

return (true);

}

return (false);

}

}

class ExBank

{

public static void main(String arg[])

{

Scanner KB = new Scanner(System.in);

System.out.print("How Many Customer U Want to Input : ");

int n = KB.nextInt();

Bank C[] = new Bank[n];

for (int i = 0; i < C.length; i++)

{

C[i] = new Bank();

C[i].openAccount();

}

int ch;

do

{

System.out.println("Main Menu\n1. Display All\n 2. Search By Account\n 3. Deposit\n 4. Withdrawal\n 5.E xit ");

System.out.println("Ur Choice :"); ch = KB.nextInt();

switch (ch)

{

case 1:

for (int i = 0; i < C.length; i++) {

C[i].showAccount();

}

break;

case 2:

System.out.print("Enter Account No U Want to Search...: ");

String acn = KB.next();

boolean found = false;

for (int i = 0; i < C.length; i++)

{

found = C[i].search(acn);

if (found)

{

break;

}

}

if (!found)

{

System.out.println("Search Failed..Account Not Exist..");

}

break;

case 3:

System.out.print("Enter Account No : ");

acn = KB.next();

found = false;

for (int i = 0; i < C.length; i++)

{

found = C[i].search(acn);

if (found)

{

C[i].deposit();

break;

}

}

if (!found)

{

System.out.println("Search Failed..Account Not Exist..");

}

break;

case 4:

System.out.print("Enter Account No : ");

acn = KB.next();

found = false;

for (int i = 0; i < C.length; i++)

{

found = C[i].search(acn);

if (found) {

C[i].withdrawal();

break;

}

}

if (!found)

{

System.out.println("Search Failed..Account Not Exist..");

}

break;

case 5:

System.out.println("Good Bye..");

break;

}

}

while (ch != 5);

}

}

**Output**:

How Many Customer U Want to Input : 1

Enter Account No: 101

Enter Name: shini

Enter Balance: 4000

Main Menu

1. Display All

2. Search By Account

3. Deposit

4. Withdrawal

5.E xit

Ur Choice :

5

Good Bye..

1. **Write a program for Factorial using classes and objects?**

import java.util.Scanner;

class Factorial

{

private int n;

public void input() {

Scanner in = new Scanner(System.in);

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

n = in.nextInt();

}

public void fact() {

int f = 1;

for (int i = 1; i <= n; i++)

f \*= i;

System.out.println("Factorial of " + n

+ " = " + f);

}

public static void main(String args[]) {

Factorial obj = new Factorial();

obj.input();

obj.fact();

}

}

**Output:**

Enter the number: 5

Factorial of 5 = 120

1. **Write a program for Armstrong Number using classes and objects?**

import java.util.Scanner;

public class Armstrong

{

public static void main(String[] args)

{

int num, number, temp, total = 0;

System.out.println("Enter Digit Number:");

Scanner scanner = new Scanner(System.in);

num = scanner.nextInt();

scanner.close();

number = num;

for( ;number!=0;number /= 10)

{

temp = number % 10;

total = total + temp\*temp\*temp;

}

if(total == num)

System.out.println(num + " is an Armstrong number");

else

System.out.println(num + " is not an Armstrong number");

}

}

**Output:**

Enter Digit Number:

6789

6789 is not an Armstrong number

1. **Write a program for Sum of the digits using classes and objects?**

import java.util.Scanner;

public class SumOfDigitsExample1

{

public static void main(String args[])

{

int number, digit, sum = 0;

Scanner sc = new Scanner(System.in);

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

number = sc.nextInt();

while(number > 0)

{

digit = number % 10;

sum = sum + digit;

number = number / 10;

}

System.out.println("Sum of Digits: "+sum);

}

}

**Output:**

Enter the number: 1234

Sum of Digits: 10

**5.Write a program that accepts and float and compute the value n+nn+nnn+nnnn?**

import java.util.Scanner;

public class Main {

public static void main(String[] args) {

Scanner in = new Scanner(System.in);

System.out.print("Input number: ");

String n = in.nextLine();

if (n.matches("[0-9]+")) {

System.out.println(n + " + " + n + n + " + " + n + n + n + "+" + n + n + n + n + " = "

+ (Integer.parseInt(n) + Integer.parseInt(n + n) + Integer.parseInt(n + n + n) + Integer.parseInt(n + n + n + n)));

} else {

System.out.println("Error: invalid input.");

}

}

}

**Output:**

Input number: 4

4 + 44 + 444+4444 = 4936

**6.write a program for Floyd triangle?**

import java.util.\*;

class GFG {

public static void main(String[] args)

{

int n = 5;

int i, j, k = 1;

for (i = 1; i <= n; i++) {

for (j = 1; j <= i; j++) {

System.out.print(k + " ");

k++;

}

System.out.println();

}

}

}

**Output:**

1

2 3

4 5 6

7 8 9 10

11 12 13 14 15