CHRIST
(DEEMED TO BE UNIVERSITY)
PUNE LAVASA CAMPUS
The Hub of Analytics

CHRIST (Deemed to be University) Pune Lavasa Campus

School of Sciences

Department of Data Science

MDS273 Java Programming

Lab Record

PRASHANT

22122036

May 2023

CONTENTS

Question _

<Write a Java Program that will collect an employee's basic details that fall into different data types and displays them. After the details have been displayed, with the help of conditional statements, check if the gender of the employee is 'm' or 'f'. It should print "MALE" for 'm' and "FEMALE" for 'f'. Assume that you can divide the states among India into different regions (North, South, Central, East, and West). If the employee is from the southern part of India, with the help of a switch statement, it should display "The Employee is from the southern states of India; Preferable work location is in ", along with the basic details. Identify if the employee belongs to the top MNC Companies (Facebook, Google, Microsoft, Samsung, IBM, Apple); if so, print a message "The employee is working in Top MNC Companies".>

Flow Chart

<>

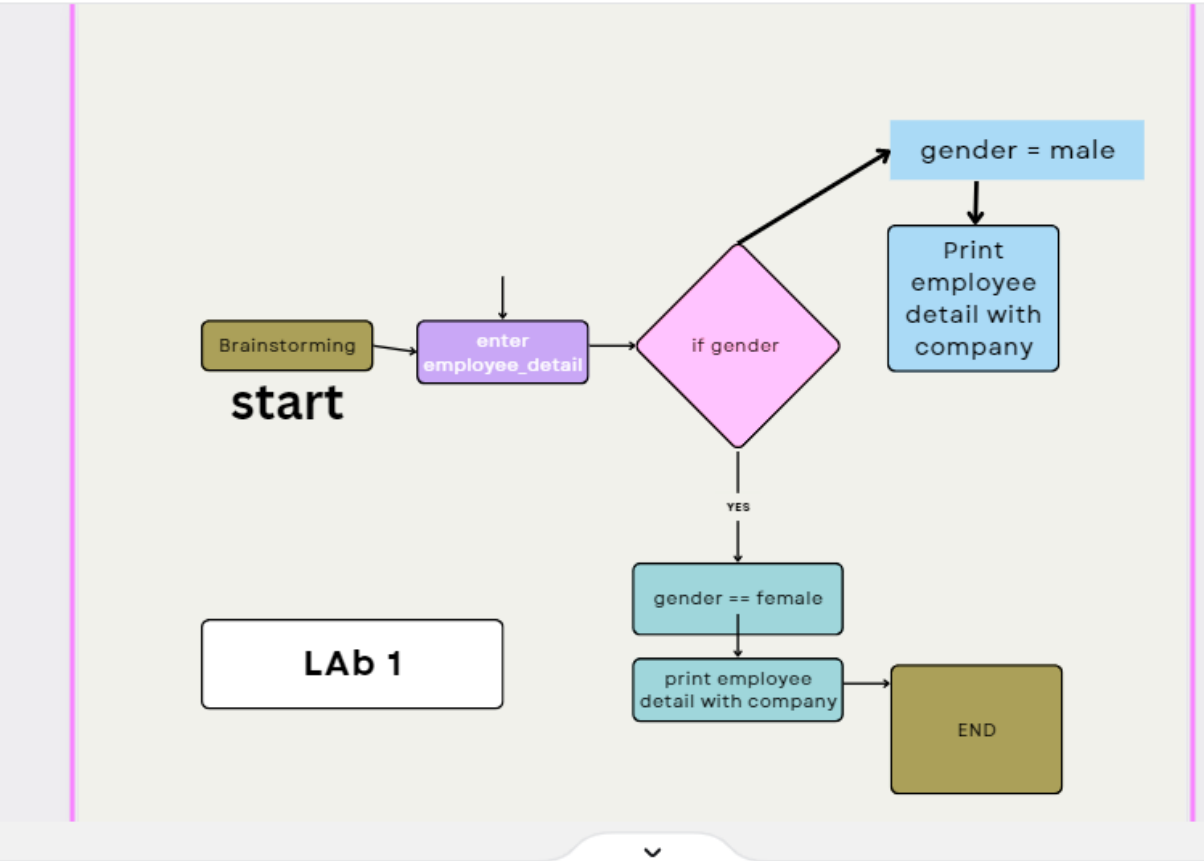
Solution

```
<import java.util.Scanner;


public class emp {

   public static void main(String[] args) {

      System.out.println("Enter the Employee's Details :- ");

      Scanner sc = new Scanner(System.in);

      System.out.println("Enter the Employee Name :");

      String ename = sc.nextLine();

      System.out.println("Enter the Employee age :");

      int eage = Integer.parseInt(sc.nextLine());
```

```
System.out.println("Enter the States");
String region = sc.nextLine();
System.out.println("Enter your Company Name: ");
String company = sc.nextLine();
System.out.println("Enter the Employee gender ('m' or 'f'):");
char gender = sc.next().charAt(0);



System.out.println("***** DETAILS ******");
System.out.println("Name of Employee: " + ename);
System.out.println("Age of Employee: " + eage);

if (gender == 'm') {
   System.out.println("Male");

} else if (gender == 'f') {
   System.out.println("Female");

}
switch(region){
   case "Andhra Pradesh":
```

```
case "Kerala":
case "Karnatak":
case "Tamil Nadu":
case "Telengana" :
   System.out.println("The employee is from sourthen part of india");
   break;
case "West Bengal":
case "Bihar":
case "Jharkhand":
case "Arunanchal Pradesh":
case "Odisha":
   System.out.println(" The employee is from eastern part of India");
   break;
case "Uttar Pradesh":
case "Uttarakhand":
case "Punjab":
case "Delhi":
case "Rajasthan":
case "Harayana":
case "Himachal Pradesh":
   System.out.println("The Employee is from Northen part of India");
```

```
            break;
        case "Madhya Pradesh":
        case "Maharastha":
        case "Goa":
        case "Gujrat":
        case " Rajasthan ":
            System.out.println(" The Employee is from Western part of India");
            break;
        default :
            System.out.println("Please enter the right state!!");
    }



    if(company.equals("Facebook") || company.equals("Google") ||
company.equals("Microsoft") ||company.equals("Samsung") || company.equals("Ibm") ||
company.equals("Apple")){
        System.out.println("The employee is working in Top MNC Companies.");
    }


  }
}>
```



Output

```
D:\JAVA_LAB_EXEM\lab1>java emp
Enter the Employee's Details :-
Enter the Employee Name :
harsh
Enter the Employee age :
45
Enter the States
Goa
Enter your Company Name:
Google
Enter the Employee gender ('m' or 'f'):
m
***** DETAILS ******
Name of Employee: harsh
Age of Employee: 45
Male
 The Employee is from Western part of India
The employee is working in Top MNC Companies.

D:\JAVA_LAB_EXEM\lab1>
```

<Q.Lab Exercise Question You are supposed to create a menu-driven program that has the following menu options:

Enter a name

Search for a name

Remove a name Note: The menu-driven program has to be made with the help of a do-while loop and switch-case statements.

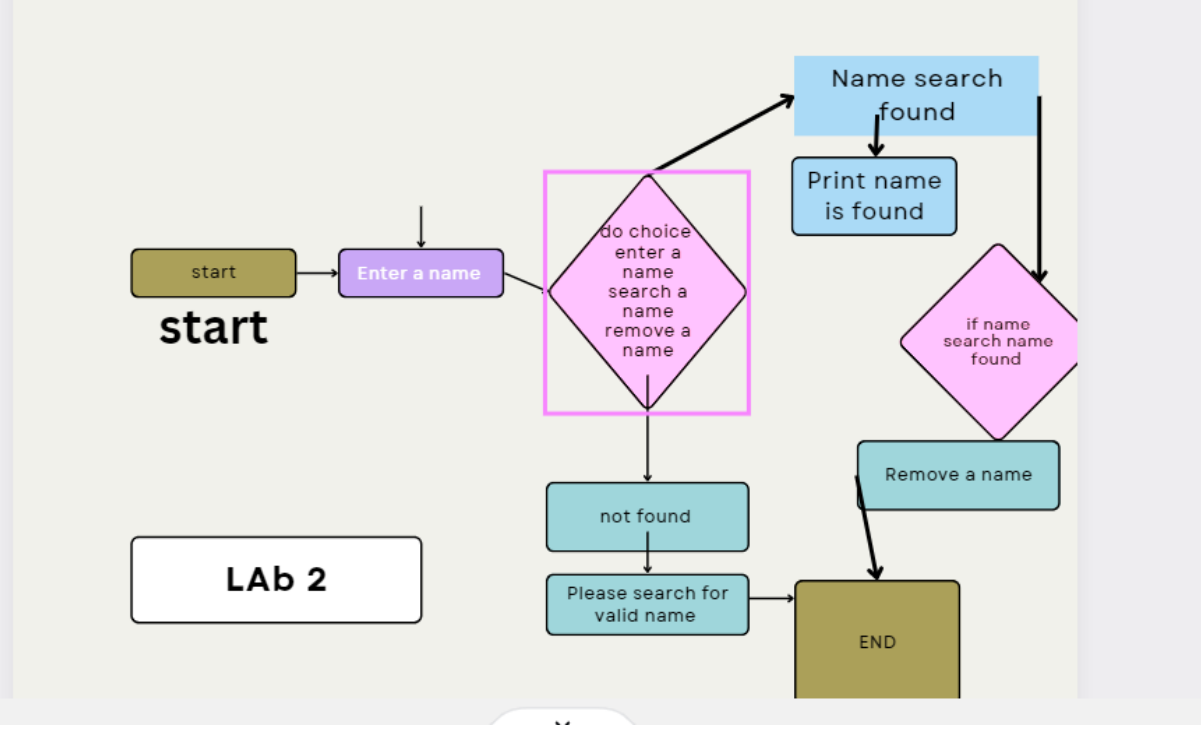
Constraints: The names collected must be stored in an array with a max length of 1024.

The names in the array should be UNIQUE;

no duplicate entries are expected! Provide necessary validations that

the user enters only valid names that are not going to be repeated.

Removing a name should not create empty space inside the array! Format your results properly!!



```
D:\JAVA_LAB_EXEM\lab2>java NameSearch
########### MENU ###########
## 1. Enter the name:    ###
## 2. Search for a name: ###
## 3. Remove a name:    ####
## 4. Print the name list ##
## 5. Quit              ####
############################
Enter your choice:
1
Enter your name: prashant
########### MENU ###########
## 1. Enter the name:    ###
## 2. Search for a name: ###
## 3. Remove a name:    ####
## 4. Print the name list ##
## 5. Quit              ####
############################
Enter your choice:
2
Which name your are searching?.
prashant
Name is found at position 1
########### MENU ###########
## 1. Enter the name:    ###
## 2. Search for a name: ###
## 3. Remove a name:    ####
## 4. Print the name list ##
## 5. Quit              ####
############################
Enter your choice:
```

```
import java.util.Scanner;


class NameSearch {

    public static void main(String[] args) {

        Scanner sc = new Scanner(System.in);

        String[] names = new String[1024];

        Boolean flag = false;

        int ii = 0;

        do {


            flag = true;

            System.out.println("########### MENU ###########");
```

```
System.out.println("## 1. Enter the name:    ###");

System.out.println("## 2. Search for a name: ###");

System.out.println("## 3. Remove a name:    ####");

System.out.println("## 4. Print the name list ##");

System.out.println("## 5. Quit              ####");

System.out.println("##############################");

System.out.println("Enter your choice: ");

int inp = Integer.parseInt(sc.nextLine());


switch (inp) {

   case 1: {

      int j;

      System.out.print("Enter your name: ");

      String temp=sc.nextLine();

      for ( j=0; j < names.length; j++) {

         if (temp.equals(names[j])){

            System.out.println("Name is already exist. ");

            break;


         }

         else{
```

```
                names[ii] = temp;
                ii++;
                break;
            }

        }


        break;

    }
    case 2:{
        int j;
        System.out.println("Which name your are searching?.");
        String sch = sc.nextLine();
        for ( j=0; j < names.length; j++) {
            if (sch.equals(names[j])){
                System.out.println("Name is found at position "+(j+1));
                break;

            }
```

```
        }
        break;
    }
    case 3:{
        int j;
        System.out.println("Which name you want to delete. :");
        String ntemp = sc.nextLine();
        for ( j=0; j < names.length; j++) {
            if (ntemp.equals(names[j])){
                for (; j < names.length-1; j++) {
                    names[j]=names[j+1];


                }


            }


        }
        break;
```

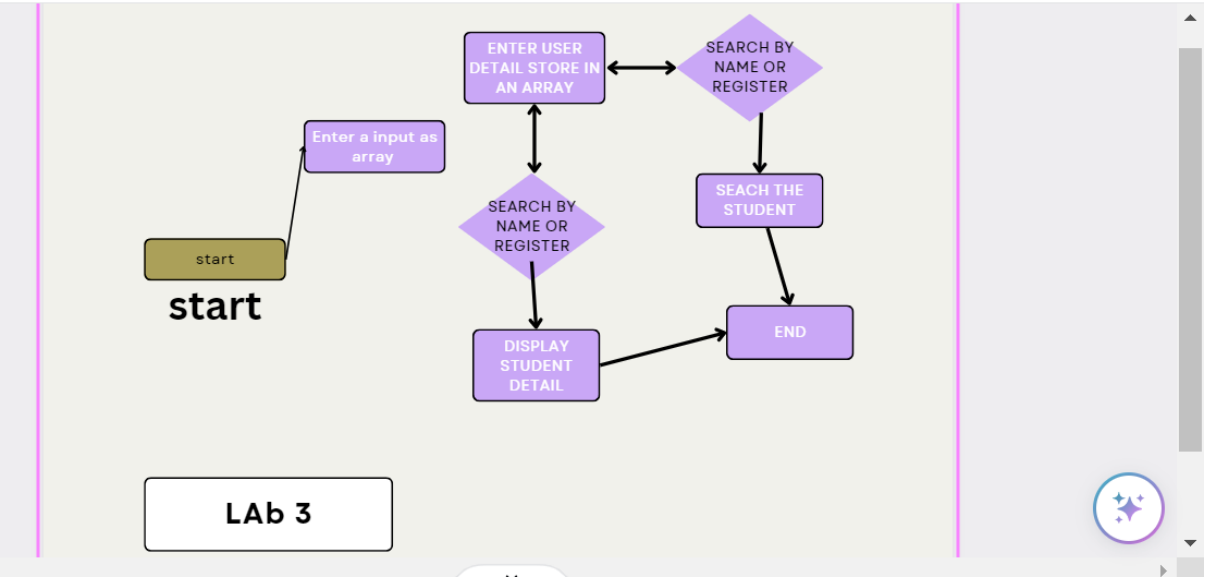
```
        }
        case 4:{
            System.out.println("Your list are: ");
            for (String a:names){
                if(a!=null){
                    System.out.print(a+",");
                }

            }
            System.out.println();
            break;
        }
        case 5:{

            System.out.println("Program will now wxit in 3.2.1..");
            flag=false;
            break;
        }


    }
```

```
        } while (flag);


    }

}
```

< lab 3 Create a java program, that stores the details of a student (Name, Register Number, Email, Class, Department).
You can use a two-dimensional array to store the details.
HINT: String arr[] = {{"Alwin","1847207","alwin@christ.in","MCA","Computer Science"},{"Balagangadhar","2011204","bala@christ.in","MDS","Data Science"}}
You need to have functions to:

- Collect the details of the student
- Display the details of the student
- Search the details of the student

With the help of a menu-driven main function, you need to access these functions inside your class and perform the operations.>



```
D:\JAVA_LAB_EXEM\lab2>java NameSearch
########### MENU ############
## 1. Enter the name:    ###
## 2. Search for a name: ###
## 3. Remove a name:    ####
## 4. Print the name list ##
## 5. Quit              ####
############################
Enter your choice:
1
Enter your name: prashant
########### MENU ############
## 1. Enter the name:    ###
## 2. Search for a name: ###
## 3. Remove a name:    ####
## 4. Print the name list ##
## 5. Quit              ####
############################
Enter your choice:
2
Which name your are searching?.
prashant
Name is found at position 1
########### MENU ############
## 1. Enter the name:    ###
## 2. Search for a name: ###
## 3. Remove a name:    ####
## 4. Print the name list ##
## 5. Quit              ####
############################
Enter your choice:
```

```
import java.util.Scanner;


public class mylab3 {


    Scanner sc = new Scanner(System.in);


    static String[][] collectdata(String[][] arr, int i) {
        // String[] arr2 = new String[4];
        Scanner sc = new Scanner(System.in);
        String name, email, cls, dept, regno;
        System.out.print("Enter the Name: ");
        name = sc.nextLine();
        System.out.println();
```

```
        System.out.print("Enter the Reg No: ");
        regno = sc.nextLine();
        System.out.println();
        System.out.print("Enter the Email Id: ");
        email = sc.nextLine();
        System.out.println();
        System.out.println("Enter your Class: ");
        cls = sc.nextLine();
        System.out.println();
        System.out.println("Enter your Department: ");
        dept = sc.nextLine();
        arr[i][0] = name;
        arr[i][1] = regno;
        arr[i][2] = email;
        arr[i][3] = cls;
        arr[i][4] = dept;
        return arr;

    }

    static void dislaydata(String[][] arr, int cnt) {
```

```
        for (int i = 0; i < cnt; i++) {
            if (arr[i][0] != null) {
                System.out.println("Name is : " + arr[i][0]);
                System.out.println("Reg NO is : " + arr[i][1]);
                System.out.println("Email is : " + arr[i][2]);
                System.out.println("Class is : " + arr[i][3]);
                System.out.println("Dept is : " + arr[i][4]);
                System.out.println();
            } else {
                break;
            }

        }

    }

    static void search(String[][] arr, int cnt) {
        Scanner sc = new Scanner(System.in);
        System.out.println("Enter the name to search");
        String search = sc.nextLine();
        for (int i = 0; i < cnt; i++) {
```

```
        if (search.equals(arr[i][0])) {
            System.out.println("Details found");
            System.out.println("Name is : " + arr[i][0]);
            System.out.println("Reg NO is : " + arr[i][1]);
            System.out.println("Email is : " + arr[i][2]);
            System.out.println("Class is : " + arr[i][3]);
            System.out.println("Dept is : " + arr[i][4]);
            System.out.println();
        }


    }

}

public static void main(String[] args) {
    String[][] arr = new String[1024][5];
    int cnt = 0;
    Scanner scc = new Scanner(System.in);
    boolean flag = false;
    do {
```

```
flag = true;
System.out.println("########### MENU ###############");
System.out.println("## 1. Collet Student Details###");
System.out.println("## 2. Display Details #########");
System.out.println("## 3. Search a student ########");
System.out.println("## 4. Quit              #######");
System.out.println("################################");
System.out.println("Enter your choice: ");
int inp = Integer.parseInt(scc.nextLine());
switch (inp) {
   case 1:

      collectdata(arr, cnt);
      cnt++;

      break;
   case 2:
      dislaydata(arr, cnt);
      // System.out.println(arr[0][0]);
      // System.out.println(arr[1][0]);
```

```
                break;
            case 3:
                search(arr, cnt);
            case 4:
            flag = false;
            break;

        }

    } while (flag);

  }
}
```

<Write a JAVA Menu driven program that does the following:

You can ONLY have the below variables as global

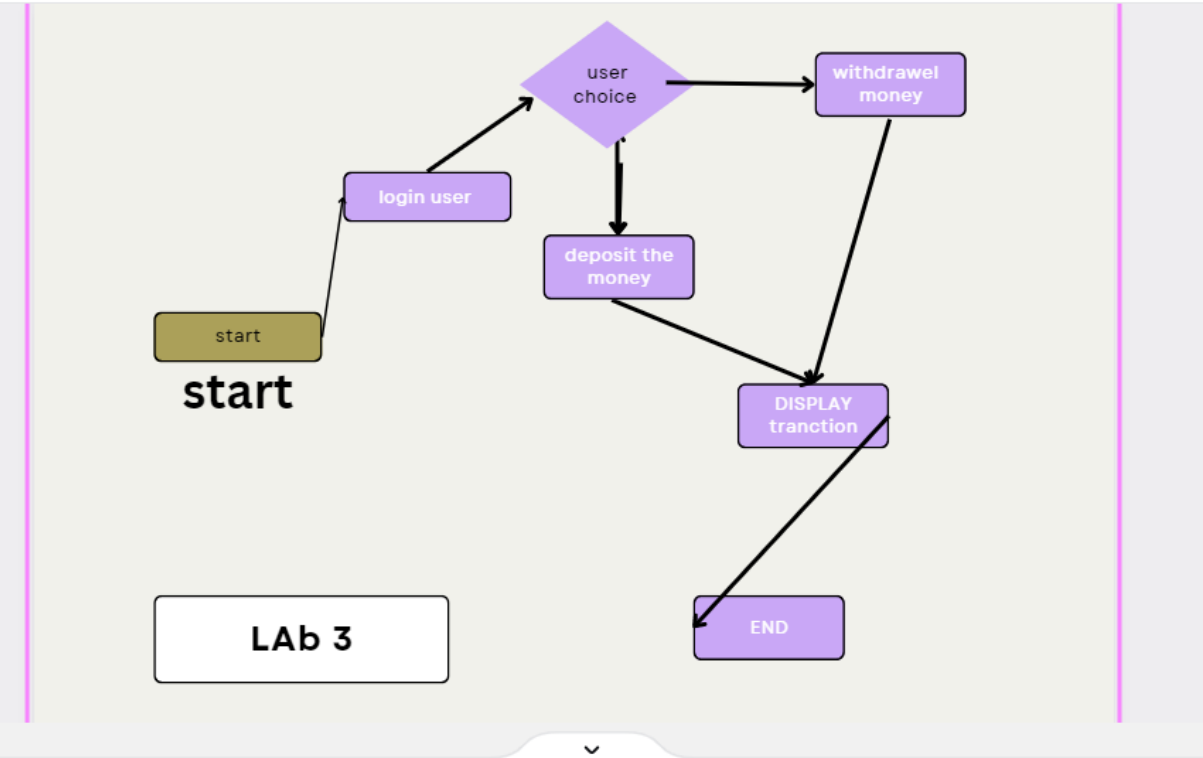
variables Account Number Account Holder Name Account Balance You MUST have the below as functions

To initialize the customer To deposit money To withdraw money To print the transactions To print account summary

Your menu will have the following operations once the customer is created To deposit money To withdraw money

To print the transactions To print account summary You need to draw a flowchart, and structure your results and program>

ɔsition




```
import java.util.Scanner;

import java.time.LocalDateTime;

import java.time.format.DateTimeFormatter;


public class lab4 {

    static int acc_no = 22122047;


    static String hname = "Siddharth lal deo";

    static double bal = 76000.00;
```

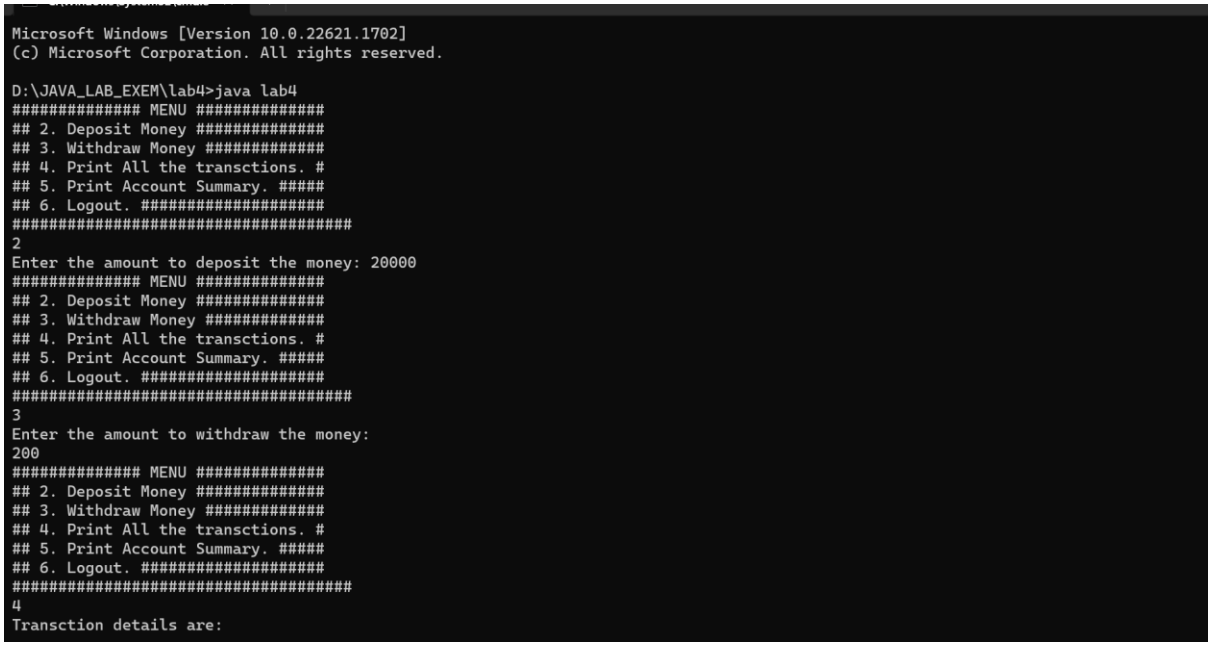
```
// static void init(){
//     System.out.println("Welcome "+hname+" your account available bal: "+bal);

// }

static String[] trans(String [] trans,int count){
    System.out.println("Transction details are: ");
    for (int i = 0; i < count; i++) {
        System.out.println(trans[i]);
    }
    return trans;
}
static double deposit(double bal,int count,String []trans){
    Scanner sc = new Scanner(System.in);
    System.out.print("Enter the amount to deposit the money: ");

    double temp = sc.nextDouble();
    double prev= bal;
    bal += temp;
```

```
        trans[count]="Money deposit : "+temp+" Time "+java.time.LocalTime.now()+"
Previous bal: "+prev+" New bal"+bal;
        // count++;


        return bal;
    }
    static double with(double bal,int count,String[] trans){
        Scanner sc = new Scanner(System.in);
        System.out.println("Enter the amount to withdraw the money: ");
        double temp = sc.nextDouble();
        double prev= bal;
        bal -= temp;
        trans[count]="Money Withdraw : "+temp+" Time "+java.time.LocalTime.now()+"
Previous bal: "+prev+" New bal"+bal;
        // count++;
        return bal;


    }
    static void summary(){
        System.out.println("welcome "+hname);
        System.out.println("Current Login Time: "+java.time.LocalTime.now());
        System.out.println(" Your Account number is "+acc_no);
```

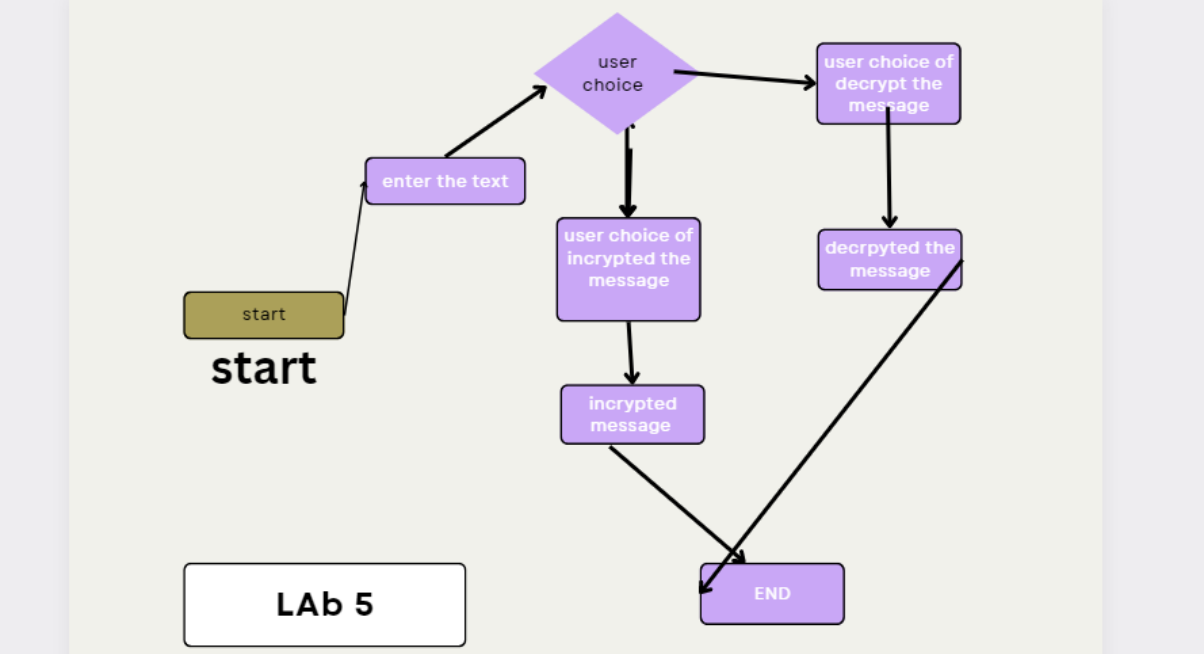
```
        System.out.println("Yout total account balance is :"+bal);


    }


    public static void main(String[] args) {
        boolean flag = true;
        Scanner sc = new Scanner(System.in);
        String [] trans = new String[200];
        int count=0;


        do {


        System.out.println("############### MENU ###############");
        // System.out.println("## 1 . Initialize the money");
        System.out.println("## 2. Deposit Money ##############");
        System.out.println("## 3. Withdraw Money #############");
        System.out.println("## 4. Print All the transctions. #");
        System.out.println("## 5. Print Account Summary. #####");
        System.out.println("## 6. Logout. ####################");
        System.out.println("########################################");
        int choice = Integer.parseInt(sc.nextLine());
```

```
        switch (choice) {
            // case 1:
            //     init();
            //     break;
            case 2:
                bal=deposit(bal,count,trans);
                count++;
                break;
            case 3:
                bal=with(bal,count,trans);
                count++;
                break;
            case 4:
                trans=trans(trans,count);

                break;
            case 5:
                summary();
                break;
            case 6:
                System.out.println("Thanks for using our bank.");
```

```
            flag=false;

            break;

        }

        } while (flag);



    }

}
```



< lab 5 : You are supposed to create a menu-driven program that can encrypt or decrypt a message that the user wishes to transfer.
Your program should have two functions, one for encryption and another for decryption. Each function will accept a string message and return the encrypted or decrypted message.>




```
import java.util.Scanner;


public class lab5 {


    static char[] arr = { 'A', 'B', 'C', 'D', 'E', 'F', 'G', 'H', 'I', 'J', 'K', 'L', 'M', 'N', 'O', 'P', 'Q', 'R', 'S',
            'T',
            'U', 'V', 'W', 'X', 'Y', 'Z' };
    static char[] arr1 = { 'X', 'Y', 'Z', 'A', 'B', 'C', 'D', 'E', 'F', 'G', 'H', 'I', 'J', 'K', 'L', 'M', 'N', 'O',
            'P',
            'Q',
            'R', 'S', 'T', 'U', 'V', 'W' };
```

```
static char encode(char text, char[] arr, char[] arr1) {


    for (int i = 0; i < arr.length; i++) {
        if (arr[i] == text) {
            return arr1[i];


        }
    }
    return ' ';


}


static char decode(char text, char[] arr, char[] arr1) {


    for (int i = 0; i < arr.length; i++) {
        if (arr1[i] == text) {
            return arr[i];


        }
    }
    return ' ';
```

```
}

public static void main(String[] args) {
    Scanner sc = new Scanner(System.in);
    int choice = 0;
    boolean exit = true;

    do {

        System.out.println("##menu##############");
        System.out.println("##1. encode text##");
        System.out.println("##2. deocde texte##");
        System.out.println("### 3 .exit");
        System.out.println("####################");
        choice = Integer.parseInt(sc.nextLine());
        switch (choice) {
            case 1:
                System.out.println("Enter the text to encode it : ");
                String text = sc.nextLine();
```

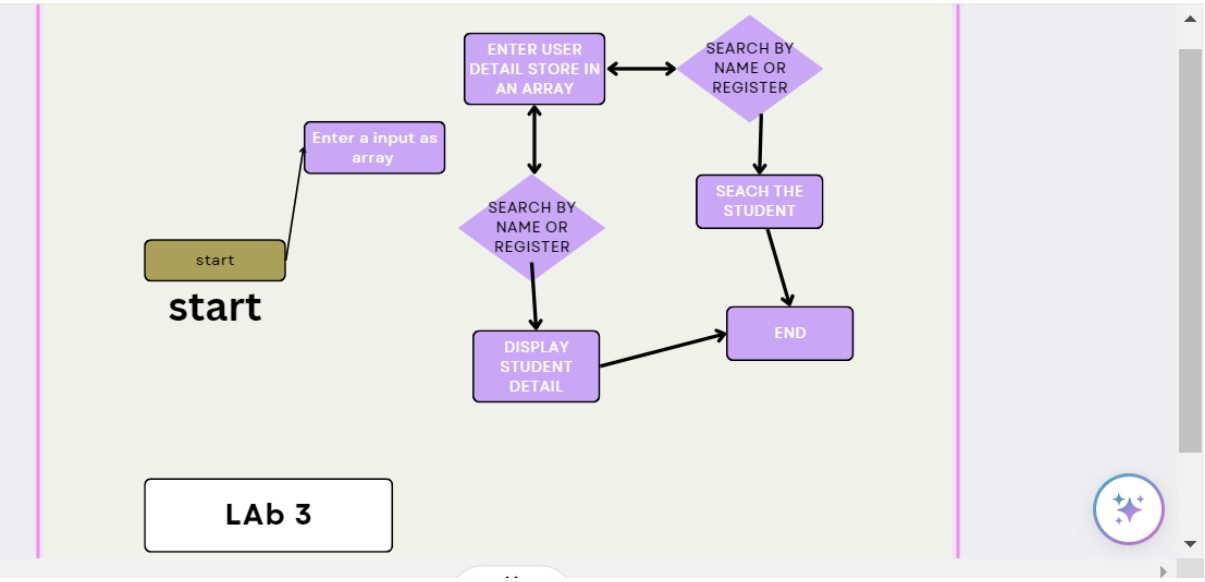
```
            for (int i = 0; i < text.length(); i++) {
                System.out.print(encode(text.charAt(i), arr, arr1));


            }
            System.out.println();


            break;


        case 2:
            System.out.println("Enter the text to decode it : ");
            String textt = sc.nextLine();
            for (int i = 0; i < textt.length(); i++) {
                System.out.print(decode(textt.charAt(i), arr, arr1));


            }
            System.out.println();
            break;
        case 3:
            exit = false;
    }
```

```
    } while (exit);

  }


}
```

```
Microsoft Windows [Version 10.0.22621.1702]
(c) Microsoft Corporation. All rights reserved.

D:\JAVA_LAB_EXEM\lab5>javac lab5.java

D:\JAVA_LAB_EXEM\lab5>java lab5
##menu##############
##1. encode text##
##2. deocde texte##
### 3 .exit
####################
1
Enter the text to encode it :
prashant

##menu##############
##1. encode text##
##2. deocde texte##
### 3 .exit
####################
2
Enter the text to decode it :
prashant

##menu##############
##1. encode text##
##2. deocde texte##
### 3 .exit
####################
```

<lab 6 Create a Student class, that will store the details of the Student, below mentioned are the attributes of a student. Reg. No. Name Email Phone Class Department The Student class will have the following methods: A constructor to initialize the values of the Student A method to print the Details of the Student. A method (named 'toString()) that convert the student details to string, and can be used to write the student details to file. In the main-method class, create an array of Student Class to hold maximum details of 100 Students.

In the menu-driven program, the menu options will have Add a student Adds the details of 1 student to the array of Student. Search for a student Search for the details of a student from the array of Student. Searching can be done with Name or Register Number. Update the details of a student Update the student details based on the search based on name or register number. Display all students Displays the details of all students. Save the details of each student in a file, with the student name as filename.




```
import java.io.BufferedWriter;

import java.io.FileWriter;

import java.io.IOException;

import java.util.Scanner;



class lab6 {

    private static final int no_of_stud = 100;

    private static final Student[] students = new Student[no_of_stud];



    public static void main(String[] args) {

        Scanner scanner = new Scanner(System.in);

        int choice;
```

```
        do {
            System.out.println("MENU");
            System.out.println("1. Add a student");
            System.out.println("2. Search for a student");
            System.out.println("3. Update the details of a student");
            System.out.println("4. Display all students");
            System.out.println("5. Save student details to file");
            System.out.println("6. Exit");
            System.out.print("Enter your choice: ");
            choice = scanner.nextInt();
            scanner.nextLine();
            switch (choice) {
                case 1:
                    addStudent(scanner);
                    break;
                case 2:
                    searchStudent(scanner);
                    break;
                case 3:
                    updateStudent(scanner);
                    break;
```

```
            case 4:
                displayAllStudents();
                break;
            case 5:
                saveStudentDetailsToFile(scanner);
                break;
            case 6:
                System.out.println("Exiting...");
                break;
            default:
                System.out.println("Invalid choice, please try again");
        }
    } while (choice != 6);
}

private static void addStudent(Scanner scanner) {
    int regNo;
    String name, email, phone, cls, department;
    System.out.println("Enter the details of the student:");
    System.out.print("Reg No.: ");
    regNo = Integer.parseInt(scanner.nextLine());
```

```
        scanner.nextLine();
        System.out.print("Name: ");
        name = scanner.nextLine();
        System.out.print("Email: ");
        email = scanner.nextLine();
        System.out.print("Phone: ");
        phone = scanner.nextLine();
        System.out.print("Class: ");
        cls = scanner.nextLine();
        System.out.print("Department: ");
        department = scanner.nextLine();
        Student student = new Student(regNo, name, email, phone, cls, department);
        for (int i = 0; i < no_of_stud; i++) {
            if (students[i] == null) {
                students[i] = student;
                System.out.println("Student added successfully");
                break;
            }
            if (i == no_of_stud - 1) {
                System.out.println("Maximum number of students reached, cannot add more
students");
```

```
        }
    }
}

private static void searchStudent(Scanner scanner) {
    System.out.println("Enter the search term (name or register number):");
    String searchTerm = scanner.nextLine();
    boolean found = false;
    for (Student student : students) {
        if (student != null) {
            if (student.getName().equalsIgnoreCase(searchTerm) ||
String.valueOf(student.getRegNo()).equals(searchTerm)) {
                student.printDetails();
                found = true;
            }
        }
    }
    if (!found) {
        System.out.println("Student not found");
    }
}
```

```
    private static void updateStudent(Scanner scanner) {
        System.out.println("Enter the search term (name or register number):");
        String searchTerm = scanner.nextLine();
        boolean found = false;
        for (Student student : students) {
            if (student != null) {
                if (student.getName().equalsIgnoreCase(searchTerm) ||
String.valueOf(student.getRegNo()).equals(searchTerm)) {
                    System.out.println("Enter the new details:");
                    System.out.print("Name: ");
                    String name = scanner.nextLine();
                    System.out.print("Email: ");
                    String email = scanner.nextLine();
                    System.out.print("Phone: ");
                    String phone = scanner.nextLine();
                    System.out.print("Class: ");
                    String cls = scanner.nextLine();
                    System.out.print("Department: ");
                    String department = scanner.nextLine();
                    student.setName(name);
```

```
                student.setEmail(email);
                student.setPhone(phone);
                student.setCls(cls);
                student.setDepartment(department);
                System.out.println("Student details updated successfully");
                found = true;
                break;
            }
        }
    }
    if (!found) {
        System.out.println("Student not found");
    }
}

private static void displayAllStudents() {
    for (Student student : students) {
        if (student != null) {
            student.printDetails();
        }
    }
```

```
    }

    private static void saveStudentDetailsToFile(Scanner scanner) {
        System.out.println("Enter the name of the student to save the details to file:");
        String studentName = scanner.nextLine();
        for (Student student : students) {
            if (student != null) {
                if (student.getName().equalsIgnoreCase(studentName)) {
                    String fileName = student.getName() + ".txt";
                    try (BufferedWriter writer = new BufferedWriter(new FileWriter(fileName))) {
                        writer.write(student.toString());
                        System.out.println("Student details saved to file successfully");
                    } catch (IOException e) {
                        System.out.println("Error occurred while saving student details to file: " +
e.getMessage());
                    }
                    return;
                }
            }
        }
        System.out.println("Student not found");
```

```
    }
}


class Student {
    private int regNo;
    private String name;
    private String email;
    private String phone;
    private String cls;
    private String department;


    public Student(int regNo, String name, String email, String phone, String cls, String
department) {
        this.regNo = regNo;
        this.name = name;
        this.email = email;
        this.phone = phone;
        this.cls = cls;
        this.department = department;
    }
```

```
    public void printDetails() {
        System.out.println("Reg No.: " + regNo);
        System.out.println("Name: " + name);
        System.out.println("Email: " + email);
        System.out.println("Phone: " + phone);
        System.out.println("Class: " + cls);
        System.out.println("Department: " + department);
    }

    public String toString() {
        return regNo + "," + name + "," + email + "," + phone + "," + cls + "," + department;
    }

    public String getName() {
        return name;
    }

    public int getRegNo() {
        return regNo;
    }
```

```
    public void setName(String name) {
        this.name = name;
    }

    public void setEmail(String email) {
        this.email = email;
    }

    public void setPhone(String phone) {
        this.phone = phone;
    }

    public void setCls(String cls) {
        this.cls = cls;
    }

    public void setDepartment(String department) {
        this.department = department;
    }
}
```

```
D:\JAVA_LAB_EXEM\lab6>java lab6
MENU
1. Add a student
2. Search for a student
3. Update the details of a student
4. Display all students
5. Save student details to file
6. Exit
Enter your choice: 1
Enter the details of the student:
Reg No.: 22122036

Name: prashant
Email: tparshant501@gmail.com
Phone: 8708245465
Class: msc
Department: datascience
Student added successfully
MENU
1. Add a student
2. Search for a student
3. Update the details of a student
4. Display all students
5. Save student details to file
6. Exit
Enter your choice: 5
Enter the name of the student to save the details to file:
prashant
Student details saved to file successfully
MENU
1. Add a student
2. Search for a student
3. Update the details of a student
4. Display all students
```

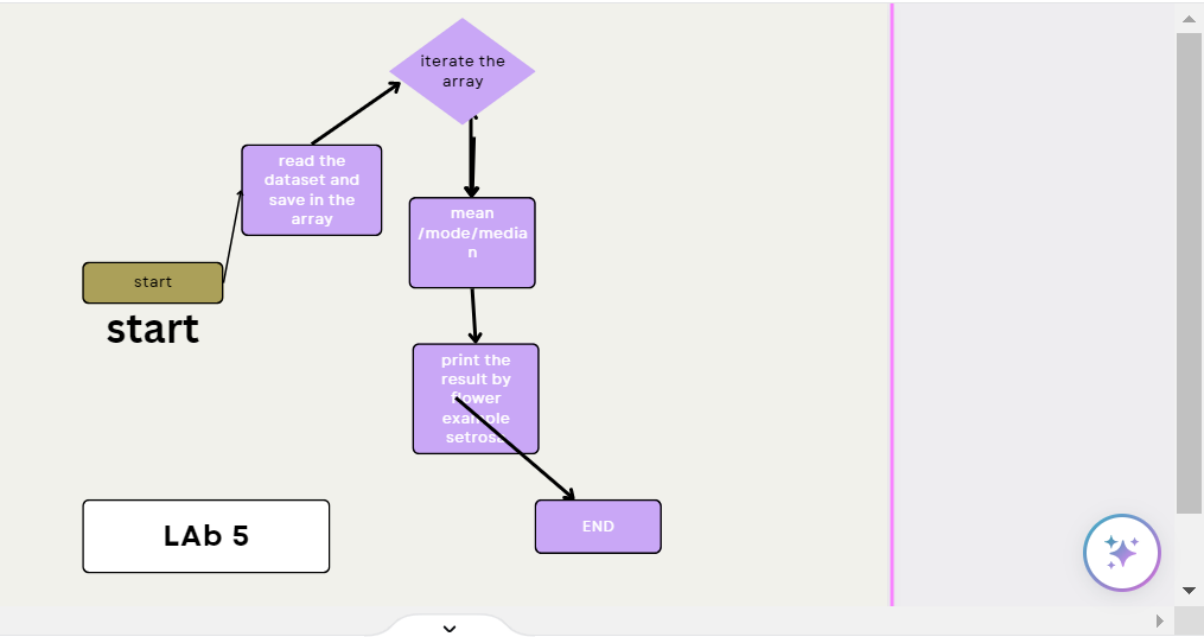
Ln 1, Col 1

<lab7 Create a new folder in git named 'Lab 7' for the following question and solve the following: create a flowchart and document the results, constraints, etc., in the README.md file for the lab.

Given the famous iris dataset, find the 5-point summary [Mean, Median, Mode, Min, Max] for the attributes: SepalLengthCm, SepalWidthCm, PetalLengthCm, PetalWidthCm.

Once the overall summary statistics have been calculated, identify the summary statistics for each Species of iris flower [Iris-setosa, Iris-versicolor, Iris-virginica].

Present your results in the appropriate format and write the results in a file.>




```
import java.io.File;

import java.io.FileNotFoundException;

import java.util.Scanner;


public class lab7 {

    static double mode(String []arr){

        System.out.println("Mode: ");

        System.out.println("1. SepalLengthCm");

        System.out.println("2. SepalWidthCm");

        System.out.println("3. PetalLengthCm");

        System.out.println("4. PetalWidthCm");

        Scanner sc = new Scanner(System.in);
```

```
int choice=Integer.parseInt(sc.nextLine());
if(choice==1){

   for (int i = 0; i < arr.length; i++) {
      String temp=arr[i];
      String arr1[]=temp.split(",");




   }

   for (int i = 1; i < arr.length; i++) {
      String temp=arr[i];
      String arr1[]=temp.split(",");
      sum+=Double.parseDouble(arr1[1]);
   }
   return (double) (sum/(arr.length-1));


}
```

```
        return 0;


    }
    static double meann(String []arr){


        System.out.println("Mean: ");
        System.out.println("1. SepalLengthCm");
        System.out.println("2. SepalWidthCm");
        System.out.println("3. PetalLengthCm");
        System.out.println("4. PetalWidthCm");
        Scanner sc = new Scanner(System.in);
        int choice=Integer.parseInt(sc.nextLine());
        if(choice==1){
            double sum=0.0;


            for (int i = 1; i < arr.length; i++) {
                String temp=arr[i];
                String arr1[]=temp.split(",");
                sum+=Double.parseDouble(arr1[1]);
            }
```

```
        return (double) (sum/(arr.length-1));



    }else if(choice==2){
        double sum=0.0;

        for (int i = 1; i < arr.length; i++) {
            String temp=arr[i];
            String arr1[]=temp.split(",");
            sum+=Double.parseDouble(arr1[2]);
        }
        return (double) (sum/(arr.length-1));



    }
    else if(choice==3){
        double sum=0.0;

        for (int i = 1; i < arr.length; i++) {
            String temp=arr[i];
            String arr1[]=temp.split(",");
```

```
            sum+=Double.parseDouble(arr1[3]);
        }
        return (double) (sum/(arr.length-1));



    }
    else if(choice==4){
        double sum=0.0;

        for (int i = 1; i < arr.length; i++) {
            String temp=arr[i];
            String arr1[]=temp.split(",");
            sum+=Double.parseDouble(arr1[4]);
        }
        return (double) (sum/(arr.length-1));



    }
```

```
        return 0;
    }
    static double median(String []arr){

        System.out.println("Median: ");
        System.out.println("1. SepalLengthCm");
        System.out.println("2. SepalWidthCm");
        System.out.println("3. PetalLengthCm");
        System.out.println("4. PetalWidthCm");
        Scanner sc = new Scanner(System.in);
        int choice=Integer.parseInt(sc.nextLine());
        if(choice==1){
            double sum=0.0;
            double temp=0.0;
            double []tempmode = new double[151];

            for (int i = 1; i < arr.length; i++) {
                String tempa=arr[i];
                String arr1[]=tempa.split(",");
                tempmode[i]=Double.parseDouble(arr1[1]);
```

```
        }
        for (int i = 0; i < tempmode.length; i++) {
           for (int j = i+1; j < tempmode.length; j++) {
              if(tempmode[i] > tempmode[j]) {
                 temp = tempmode[i];
                 tempmode[i] = tempmode[j];
                 tempmode[j] = temp;
              }
           }
        }
        if(tempmode.length%2!=0){
           return tempmode[tempmode.length/2];

        }else{
           double tempsum=tempmode[tempmode.length/2-
1]+tempmode[tempmode.length/2];
           return (tempsum/2);
        }
```

```
}else if(choice==2){
    double sum=0.0;
    double temp=0.0;
    double []tempmode = new double[151];

    for (int i = 1; i < arr.length; i++) {
        String tempa=arr[i];
        String arr1[]=tempa.split(",");
        tempmode[i]=Double.parseDouble(arr1[2]);

    }
    for (int i = 0; i < tempmode.length; i++) {
        for (int j = i+1; j < tempmode.length; j++) {
            if(tempmode[i] > tempmode[j]) {
                temp = tempmode[i];
                tempmode[i] = tempmode[j];
                tempmode[j] = temp;
            }
        }
    }
    if(tempmode.length%2!=0){
```

```
            return tempmode[tempmode.length/2];


        }else{
            double tempsum=tempmode[tempmode.length/2-
1]+tempmode[tempmode.length/2];
            return (tempsum/2);
        }



    }
    else if(choice==3){
        double sum=0.0;
        double temp=0.0;
        double []tempmode = new double[151];

        for (int i = 1; i < arr.length; i++) {
            String tempa=arr[i];
            String arr1[]=tempa.split(",");
            tempmode[i]=Double.parseDouble(arr1[3]);

        }
```

```
        for (int i = 0; i < tempmode.length; i++) {
            for (int j = i+1; j < tempmode.length; j++) {
              if(tempmode[i] > tempmode[j]) {
                  temp = tempmode[i];
                  tempmode[i] = tempmode[j];
                  tempmode[j] = temp;
              }
            }
        }
        if(tempmode.length%2!=0){
            return tempmode[tempmode.length/2];

        }else{
            double tempsum=tempmode[tempmode.length/2-
1]+tempmode[tempmode.length/2];
            return (tempsum/2);
        }


    }
    else if(choice==4){
```

```
double sum=0.0;
double temp=0.0;
double []tempmode = new double[151];


for (int i = 1; i < arr.length; i++) {
   String tempa=arr[i];
   String arr1[]=tempa.split(",");
   tempmode[i]=Double.parseDouble(arr1[4]);


}
for (int i = 0; i < tempmode.length; i++) {
   for (int j = i+1; j < tempmode.length; j++) {
      if(tempmode[i] > tempmode[j]) {
         temp = tempmode[i];
         tempmode[i] = tempmode[j];
         tempmode[j] = temp;
      }
   }
}
if(tempmode.length%2!=0){
   return tempmode[tempmode.length/2];
```

```
        }else{
            double tempsum=tempmode[tempmode.length/2-
1]+tempmode[tempmode.length/2];
            return (tempsum/2);
        }



    }



    return 0;
  }

  public static void main(String[] args) {
    String[] arr = new String[151];
    try {

      Scanner sc = new Scanner(
          new File("D:\\JAVA_LAB_EXEM\\lab7\\Iris.csv"));
```

```
        int irr = 0;
        while (sc.hasNext()) {
            arr[irr] = sc.next();
            irr++;
        }
        sc.close();
    } catch (FileNotFoundException e) {
        e.printStackTrace();
    }

    System.out.println("1. Mean ");
    System.out.println("Mean is"+meann(arr));
    System.out.println("2. Median");
    System.out.println("Median is"+median(arr));


}
```

}


D:\JAVA_LAB_EXEM\lab2>java NameSearch
########## MENU ##########
1. Enter the name:
2. Search for a name:
3. Remove a name:
4. Print the name list
5. Quit
############################
Enter your choice:
1
Enter your name: prashant
########## MENU ##########
1. Enter the name:
2. Search for a name:
3. Remove a name:
4. Print the name list
5. Quit
############################
Enter your choice:
2
Which name your are searching?.
prashant
Name is found at position 1
########## MENU ##########
1. Enter the name:
2. Search for a name:
3. Remove a name:
4. Print the name list
5. Quit
############################
Enter your choice: