**Here is lab 11 solution**

public class Student {

private int id;

private String name;

private double score;

public Student (int id, String name, double score)

{

this.id=id;

this.name=name;

this.score=score;

}

public int getId() {

return id;

}

public String getName() {

return name;

}

public double getScore() {

return score;

}

public void display()

{

System.out.println(getId()+

", "+getName()+

", "+getScore());

}

}

class CourseManager5{

private Student [] students;

private int nStudents ;

public static int MAX\_SIZE=100;

public CourseManager5() {

students = new Student [100];

nStudents=0;

}

public void addStudent(Student newStudent) {

if (nStudents < 100)

{

students[nStudents]=newStudent;

nStudents++;

}

else

System.out.println("ERROR: COURSE IS FULL");

/\* 2- add the new student to the list

Increment the current number of students\*/

}

public void displayStudent(int i) {

// System.out.println(students[i].getId()+

// ", "+students[i].getName()+

// ", "+students[i].getScore());

students[i].display();

}

public int getNStudents() {

return nStudents;

}

public int findStudentByName (String name){

for (int i = 0 ; i < nStudents; i++)

{

if (students[i].getName().equalsIgnoreCase(name))

return i;

}

return -1;

}

public double findStudentscoreByName (String name){

for (int i = 0 ; i < nStudents; i++)

{

if (students[i].getName().equalsIgnoreCase(name))

return students[i].getScore();

}

return -1;

}

public Student findStudentObjByName (String name){

for (int i = 0 ; i < nStudents; i++)

{

if (students[i].getName().equalsIgnoreCase(name))

return students[i];

}

return null;

}

public boolean deletestudentbyindex(int i)

{

if(i>=nStudents)

return false;

for(int j=i;j<nStudents-1;j++)

students[j]=students[j+1];

// students[i]=students[nStudents-1];

// students[nStudents-1]=null;

nStudents--;

return true;

}

}

class CourseManager6{

private Student [] students;

private int nStudents ;

public static int MAX\_SIZE=100;

public CourseManager6() {

students = new Student [100];

nStudents=0;

}

public Student getarray(int i){

return students[i];

}

public void addStudent(Student newStudent) {

if (nStudents < 100)

{

if (findStudentByName(newStudent.getName())==-1)

{

students[nStudents]=newStudent;

nStudents++;

}

else

System.out.println("ERROR: STUDENT ALREADY ADDED");

}

else

System.out.println("ERROR: COURSE IS FULL");

/\* 2- add the new student to the list

Increment the current number of students\*/

}

public void displayStudent(int i) {

System.out.println(students[i].getId()+", "+students[i].getName()+", "+students[i].getScore());

}

public int getNStudents() {

return nStudents;

}

public int findStudentByName (String name){

for (int i = 0 ; i < nStudents; i++)

{

if (students[i].getName().equalsIgnoreCase(name))

return i;

}

return -1;

}

public int findMaxScoreIndex ()

{

//double topscore=0;

int max=0;

/// s[0] =90 ; s[1] = 95 ; s[2]= 93 s[3] = 99 s[4]=95

for (int i = 0 ; i < nStudents ; i++)

{

if (students[i].getScore()>students[max].getScore()){

max=i;

}

}

return max;

}

public double findAverageScore(){

double sum = 0;

for (int i = 0 ; i<nStudents;i++){

sum+=students[i].getScore();

}

if (nStudents!=0)

return (sum/nStudents);

else return 0;

}

}

import java.util.Scanner;

public class TestCourseManager5 {

/\*\*

\* @param args

\*/

public static void main(String[] args) {

// TODO Auto-generated method stub

Scanner read = new Scanner(System.in);

CourseManager5 cm = new CourseManager5();

int id ;

String name;

double score;

for ( int i = 0 ; i<3 ; i++)

{

System.out.println("Please enter the ID, name, and score of student "+i+": ");

id = read.nextInt();

name=read.next();

score=read.nextDouble();

Student s = new Student (id,name,score);

cm.addStudent(s);

}

// Student res=cm.findStudentObjByName("ali");

// if(res!=null)

// {

// res.display();

// }

// else

// System.out.println("not found");

if(cm.deletestudentbyindex(1))

System.out.println("done");

else

System.out.println("not found");

/\*

CourseManager6 cm6 = new CourseManager6();

int id ;

String name;

double score;

for ( int i = 0 ; i<3 ; i++)

{

System.out.println("Please enter the ID, name, and score of student "+i+": ");

id = read.nextInt();

name=read.next();

score=read.nextDouble();

Student s = new Student (id,name,score);

cm6.addStudent(s);

}

System.out.println("Students are: ");

for ( int i = 0 ; i < cm6.getNStudents() ; i++)

{

cm6.displayStudent(i);

// ssalsaleh ksu

}

int maxindex = cm6.findMaxScoreIndex();

System.out.println("the name of the max student is :"+cm6.getarray(maxindex).getName());

System.out.println("The Student with the maximum score is: ");

cm6.displayStudent(cm6.findMaxScoreIndex());

System.out.println("Average is: "+cm6.findAverageScore());

\*/

}

public static int search(int t)

{

return 0;

}

}