

Code:

```
package gh;

import java.util.ArrayList;
import java.util.List;
import java.util.Scanner;

class Student{
    String name,gender,address;
    int age;
    Student(String n ,int a,String g,String add){
        this.name=n;
        this.age=a;
        this.gender=g;
        this.address=add;
    }
}

class Department{
    String dname,hod;
    Department(String n,String h){
        this.dname=n;
        this.hod=h;
    }
}

public class StudentSystem {
    public static Student addStudent(Scanner sc) {

        return null;
    }

    public static void main(String[] args) {
        int choice;
        System.out.println("WELCOME TO STUDENT MANAGEMENT SYSTEM");
        Scanner sc =new Scanner(System.in);
        List<Student> sList=new ArrayList<Student>();
        List<Department> dList=new ArrayList<Department>();
        while(true) {
            System.out.println("1.Add Student\n2.List Student\n3.Add department\n4.List
Department\n5."
                               + "Remove Student \n6.Remove Department\n");
            choice=sc.nextInt();
            switch(choice) {
                case 1:
                    System.out.println("Selected to add a Student :");
                    System.out.println("Enter the details of the Student:");
                    try {
                        System.out.print("Name:");
                        sc.nextLine();
                        String name=sc.nextLine();
                        //sc.nextLine();
                        System.out.print("Age:");
                        int age=sc.nextInt();
                        sc.nextLine();
                        System.out.print("Gender(Male/Female):");
                        String gender=sc.nextLine();

                        System.out.print("Address:");
                        String address=sc.nextLine();
                        Student s=new Student(name,age,gender,address);
                        sList.add(s);
                    }
                    catch (Exception e) {
                        System.out.println("Invalid input");
                    }
                case 2:
                    //List Student
                case 3:
                    //Add department
                case 4:
                    //List
                case 5:
                    //Remove Student
                case 6:
                    //Remove Department
            }
        }
    }
}
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    }
    catch(Exception e){
        System.out.println("entered wrong input:try again");
        addStudent(sc);
    }

    System.out.println("Student added successfully");
    break;
case 2:
    System.out.println("Selected to list all Students:");
    System.out.println("-----");

    System.out.printf("%25s |%2s |%7s |%5s", "NAME", "AGE", "GENDER",
"ADDRESS");

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

    for(Student s1:sList) {
        System.out.format("%25s |%3d |%7s
|%5s",s1.name,s1.age,s1.gender,s1.address);
        System.out.println();

        //System.out.println(s1.name+"|"+s1.gender+"|"+s1.address);
    }
    break;
case 3:
    System.out.println("Selected to add a Department :");
    System.out.println("Enter the details of the Department:");
    try {
        System.out.print("Name:");
        sc.nextLine();
        String name=sc.nextLine();
        //sc.nextLine();
        System.out.print("HOD:");
        String hod=sc.nextLine();
        dList.add(new Department(name,hod));
    }
    catch(Exception e) {
        System.out.println("entered wrong input:try again");
    }
    System.out.println("Department added succesfully");
    break;
case 4:
    System.out.println("Selected to list all Departments:");
    System.out.println("-----");
    System.out.printf("%25s |%5s", "NAME", "HOD");
    System.out.println("");
    System.out.println("-----");

    for(Department s1:dList) {
        System.out.format("%25s |%5s",s1.dname,s1.hod);
        System.out.println();}
    break;
case 5:
    System.out.println("Selected to remove a Student:");
    System.out.println("Enter the name of Student");
    sc.nextLine();
    int flag=0;
    String n=sc.nextLine();
    //System.out.println(n);
    for(Student s2:sList) {
        //System.out.println(s2.name);
        if(n.equals(s2.name)) {

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        //System.out.println(s2.name);
        sList.remove(sList.indexOf(s2));
        flag=1;
        break;
    }
}
if(flag==0)
    System.out.println("no Student with this name found");
else
    System.out.println("Successfully removed");
break;

case 6:
    System.out.println("Selected to remove a department:");
    System.out.println("Enter the name of Department");
    sc.nextLine();
    int flag1=0;
    String n1=sc.nextLine();
    for(Department s2:dList) {
        if(n1.equals(s2.dname)) {
            dList.remove(s2);
            flag1=1;
            break;
        }
    }
    if(flag1==0)
        System.out.println("no Department with this name found");
    else
        System.out.println("Successfully removed");
    break;
default:
    System.out.println("invalid choice");
    System.exit(0);
    break;
}

}

}

}

```

Output:

WELCOME TO STUDENT MANAGEMENT SYSTEM

- 1.Add Student
- 2.List Student
- 3.Add department
- 4.List Department
- 5.Remove Student
- 6.Remove Department

```

1
Selected to add a Student :
Enter the details of the Student:
Name:barnita roy choudhury
Age:21
Gender(Male/Female):female
Address:belgharia

```

Student added successfully

- 1.Add Student
- 2.List Student
- 3.Add department
- 4.List Department
- 5.Remove Student
- 6.Remove Department

1

Selected to add a Student :

Enter the details of the Student:

Name:debasmita ghosh

Age:30

Gender(Male/Female):female

Address:hydrabad

Student added successfully

- 1.Add Student
- 2.List Student
- 3.Add department
- 4.List Department
- 5.Remove Student
- 6.Remove Department

1

Selected to add a Student :

Enter the details of the Student:

Name:protim ghosh

Age:31

Gender(Male/Female):male

Address:hydrabad

Student added successfully

- 1.Add Student
- 2.List Student
- 3.Add department
- 4.List Department
- 5.Remove Student
- 6.Remove Department

1

Selected to add a Student :

Enter the details of the Student:

Name:barun roy choudhury

Age:65

Gender(Male/Female):male

Address:belgharia

Student added successfully

- 1.Add Student
- 2.List Student
- 3.Add department
- 4.List Department
- 5.Remove Student
- 6.Remove Department

3

Selected to add a Department :

Enter the details of the Department:

Name:cse

HOD:abc

Department added successfully

- 1.Add Student
- 2.List Student
- 3.Add department
- 4.List Department
- 5.Remove Student
- 6.Remove Department

3

Selected to add a Department :
Enter the details of the Department:
Name:IT

HOD:xyz

Department added succesfully

- 1.Add Student
- 2.List Student
- 3.Add department
- 4.List Department
- 5.Remove Student
- 6.Remove Department

3

Selected to add a Department :
Enter the details of the Department:
Name:ECE

HOD:fgb

Department added succesfully

- 1.Add Student
- 2.List Student
- 3.Add department
- 4.List Department
- 5.Remove Student
- 6.Remove Department

3

Selected to add a Department :
Enter the details of the Department:
Name:EE

HOD:pqr

Department added succesfully

- 1.Add Student
- 2.List Student
- 3.Add department
- 4.List Department
- 5.Remove Student
- 6.Remove Department

2

Selected to list all Students:

NAME	AGE	GENDER	ADDRESS

barnita roy choudhury	21	female	belgharia
debasmita ghosh	30	female	hydrabad
protim ghosh	31	male	hydrabad
barun roy choudhury	65	male	belgharia

- 1.Add Student
- 2.List Student
- 3.Add department
- 4.List Department
- 5.Remove Student
- 6.Remove Department

4

Selected to list all Departments:

NAME	HOD

cse	abc
IT	xyz
ECE	fgb
EE	pqr

- 1.Add Student
- 2.List Student
- 3.Add department
- 4.List Department
- 5.Remove Student
- 6.Remove Department

5

Selected to remove a Student:

Enter the name of Student

protim ghosh

Successfully removed

- 1.Add Student
- 2.List Student
- 3.Add department
- 4.List Department
- 5.Remove Student
- 6.Remove Department

2

Selected to list all Students:

NAME	AGE	GENDER	ADDRESS

barnita roy choudhury	21	female	belgharia
debasmita ghosh	30	female	hydrabad
barun roy choudhury	65	male	belgharia

- 1.Add Student
- 2.List Student
- 3.Add department
- 4.List Department
- 5.Remove Student
- 6.Remove Department

6

Selected to remove a department:

Enter the name of Department

cse

Successfully removed

- 1.Add Student
- 2.List Student
- 3.Add department
- 4.List Department
- 5.Remove Student
- 6.Remove Department

4

Selected to list all Departments:

NAME	HOD

IT	xyz
ECE	fgh
EE	pqr

- 1.Add Student
- 2.List Student
- 3.Add department
- 4.List Department
- 5.Remove Student
- 6.Remove Department

7

invalid choice