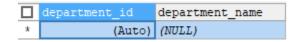
Student Department Management System

Using DAO + Singleton Design Pattern

Database Tables



student_id	student_name	student_department 🖷
(Auto)	(NULL)	(NULL)

Welcome Screen

****** MENU ******

- 1. Manage Students
- Manage Departments
- Exit

Enter:

→ Manage Departments

```
******* MANAGE Department *******

    Add

   2. Update
   3. Delete
   4. Search
   5. View All
```

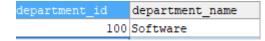
6. Back Enter:

1. Add Department

******* ADD NEW DEPARTMENT *******

-Enter Department ID: 100 -Enter Department Name: Software Department added successfully!

Adding some departments



Computer Systems:

```
****** ADD NEW DEPARTMENT *******
    -Enter Department ID: 101
    -Enter Department Name: Computer Systems
Department added successfully!
Electronics:
 ****** ADD NEW DEPARTMENT *******
     -Enter Department ID: 102
     -Enter Department Name: Electronics
 Department added successfully!
Civil:
 ******* ADD NEW DEPARTMENT *******
     -Enter Department ID: 103
     -Enter Department Name: Civil
 Department added successfully!
Mechanical:
 ****** ADD NEW DEPARTMENT *******
     -Enter Department ID: 104
    -Enter Department Name: Mechanical
 Department added successfully!
```

Departments are successfully added in the database.

department_id	department_name
100	Software
101	Computer Systems
102	Electronics
103	Civil
104	Mechanical
(Auto)	(NULL)

2. Update Department

********** UPDATE Department ********

-Enter Department No: 104

-Enter Department's New Name: Mechatronics
Department Updated successfully!

Updating mechanical to mechatronics

result:

department_id	department_name
100	Software
101	Computer Systems
102	Electronics
103	Civil
104	Mechatronics

3. Delete Department

******** DELETE Department *******

-Enter Department No: 104

Department Deleted Successfully!

Deleting department mechatronics

result:

department_id	department_name
100	Software
101	Computer Systems
102	Electronics
103	Civil
(Auto)	(NULL)

4. Search Department

******* SEARCH DEPARTMENT *******

-Enter Department No: 100

Roll No = 100

Name = Software

5. View All Departments

********* ALL DEPARTMENT *******

Department NO Department NAME

100 Software

101 Computer Systems

102 Electronics

103 Civil

→ Manage Students

******* MANAGE STUDENT *******

- 1. Add
- 2. Update
- 3. Delete
- 4. Search
- 5. View All
- 6. Back

Enter:

1. Add Student

******** ADD NEW STUDENT *******

-Enter Student Roll No: 45

-Enter Student Name: Turab

-Enter Student Department No: 100

Student added successfully!

Adding more student

result:

student_id	student_name	student_department 🖷
45	Turab	100

Danish

```
******** ADD NEW STUDENT *******

-Enter Student Roll No: 59

-Enter Student Name: Danish Azeem

-Enter Student Department No: 101

Student added successfully!
```

Naresh

```
******** ADD NEW STUDENT *******

-Enter Student Roll No: 47

-Enter Student Name: Naresh Kumar

-Enter Student Department No: 102

Student added successfully!
```

Ayoob

```
******** ADD NEW STUDENT *******

-Enter Student Roll No: 85

-Enter Student Name: Ayoob Bugti

-Enter Student Department No: 103
Student added successfully!
```

Mirza Arslan

```
-Enter Student Roll No: 57
-Enter Student Name: Mirza Arslan
-Enter Student Department No: 100
Student added successfully!
```

Jatender

```
******** ADD NEW STUDENT *******

-Enter Student Roll No: 48

-Enter Student Name: Jatender

-Enter Student Department No: 101

Student added successfully!
```

Let's view all students

-		
*****	** SEARCH STUI	ENT *******
ROLL NO	NAME	DEPARTMENT
45	Turab	Software
57	Mirza Arslan	Software
48	Jatender	Computer Systems
59	Danish Azeem	Computer Systems
47	Naresh Kumar	Electronics
85	Ayoob Bugti	Civil

2. Update Student

*********** UPDATE STUDENT ********
-Enter Student Roll No: 48

-Enter Student's New Name: Jatender Khatri

Student Updated Successfully!

3. Delete Student

******** DELETE STUDENT *******

-Enter Student Roll No: 45
Deleted Successfully!

4. Search Student

1. Searching non-existing student

******* SEARCH STUDENT *******

-Enter Student Roll No: 45
Student Not Found!

2. Searching an existing student

******* SEARCH STUDENT *******

-Enter Student Roll No: 59

Roll No = 59

Name = Danish Azeem
Department = Computer Systems

5. View All Student

*****	** SEARCH STUDENT	*****
ROLL NO	NAME DEI	PARTMENT
57	Mirza Arslan	Software
48	Jatender Khatri	Computer Systems
59	Danish Azeem	Computer Systems
47	Naresh Kumar	Electronics
85	Ayoob Bugti	Civil
	· · · · · · · · · · · · · · · · · · ·	

result

student is	student_name	student_department
45	Turab	100
47	Nareah Kumar	302
48	Jetender Khatri	151
97	Mirza Arslan	100
59	Danish Azeem	191
85	Aynob Bugti	103
(Borne)	OUTT T 1	(2017.7.1

result

stwoent_id	student_name	student_department T
49	Mareah Kumar	103
48	Jacender Khatri	101
57	Mirra Arslan	100
59	Danish Aseem	101
95	Ayoob Bagti	103
(hate)	(MULL)	(WILE)