
Database Management System

(IT615)

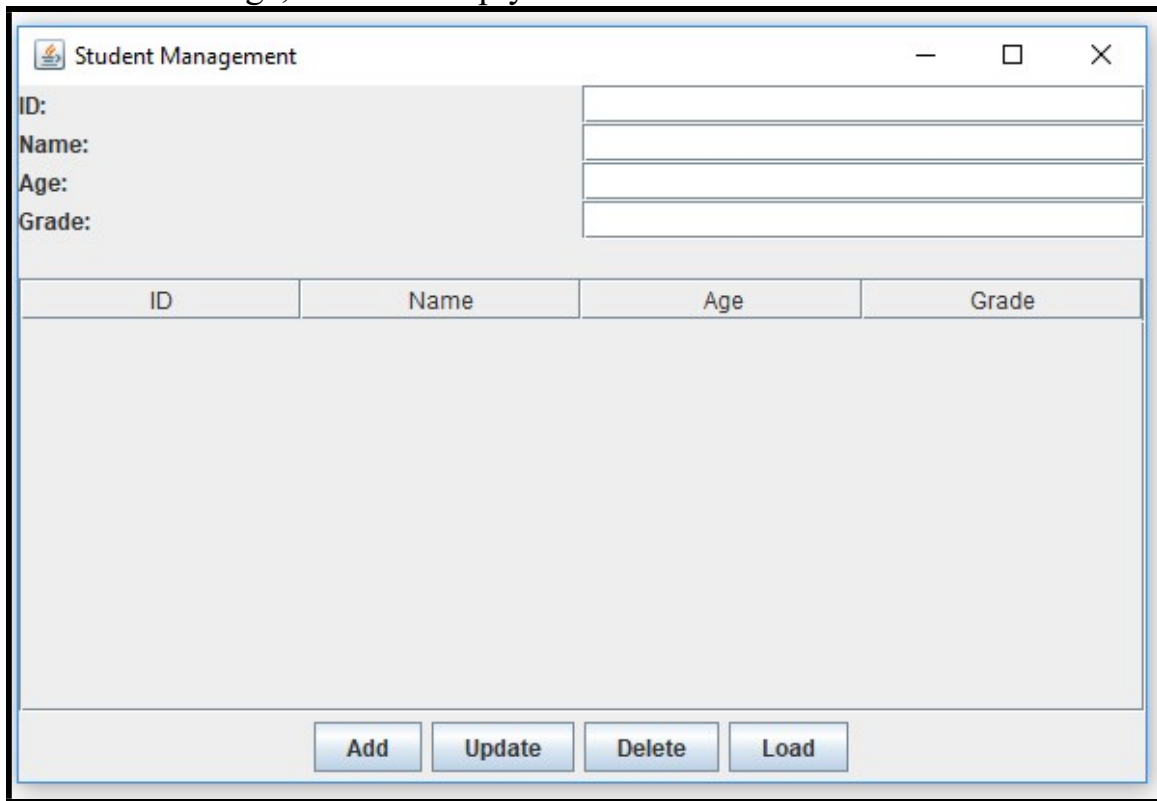
CRUD Operations using GUI

Group Number: 02

Jayesh Chauhan (202412012)

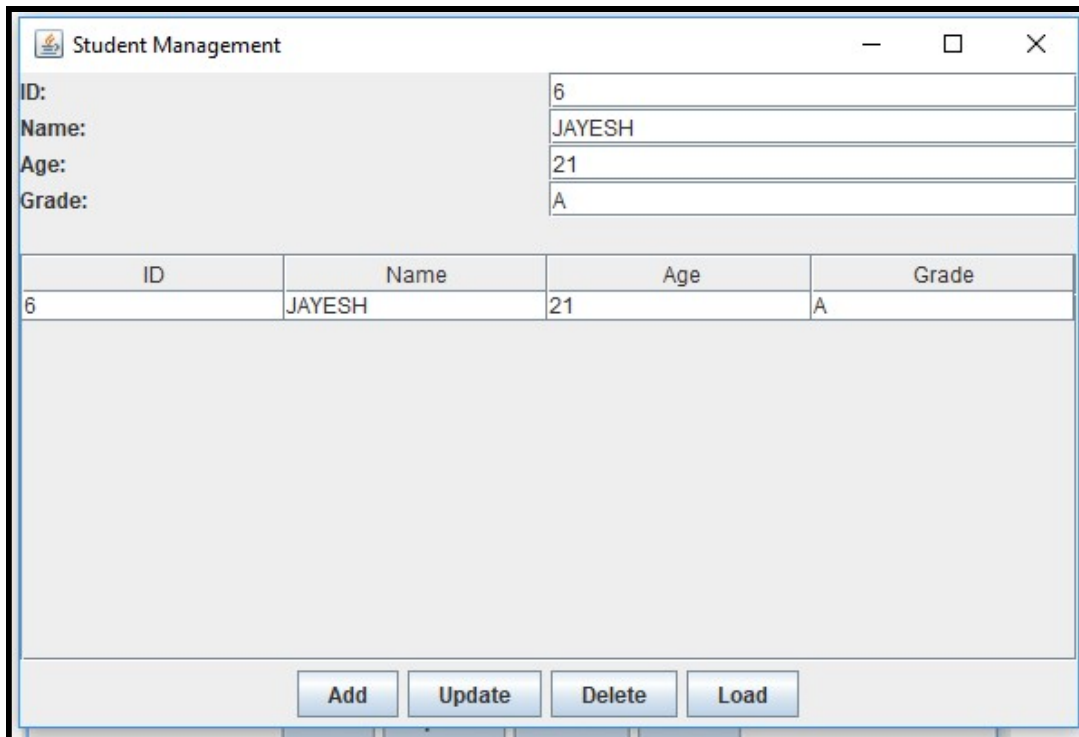
Insertion Operation

At the initial stage, Table is Empty



The screenshot shows a window titled "Student Management" with a standard Windows interface (minimize, maximize, close buttons). On the left, there are four labels: "ID:", "Name:", "Age:", and "Grade:". To the right of these labels are four empty text input fields. Below the input fields is a table with four columns: "ID", "Name", "Age", and "Grade". The table is currently empty. At the bottom of the window, there are four buttons: "Add", "Update", "Delete", and "Load".

First student data entered:



The screenshot shows the same "Student Management" window, but now the input fields and the table contain data. The "ID" field contains "6", the "Name" field contains "JAYESH", the "Age" field contains "21", and the "Grade" field contains "A". The table below now has one row with the same data: "6" under "ID", "JAYESH" under "Name", "21" under "Age", and "A" under "Grade". The "Add", "Update", "Delete", and "Load" buttons remain at the bottom.

Second student Data entered:

The screenshot shows a window titled "Student Management" with a form for entering student data. The form has four fields: ID, Name, Age, and Grade. The values entered are ID: 7, Name: SAHIL, Age: 20, and Grade: A. Below the form is a table with four columns: ID, Name, Age, and Grade. The table contains two rows of data: (6, JAYESH, 21, A) and (7, SAHIL, 20, A). At the bottom of the window are four buttons: Add, Update, Delete, and Load.

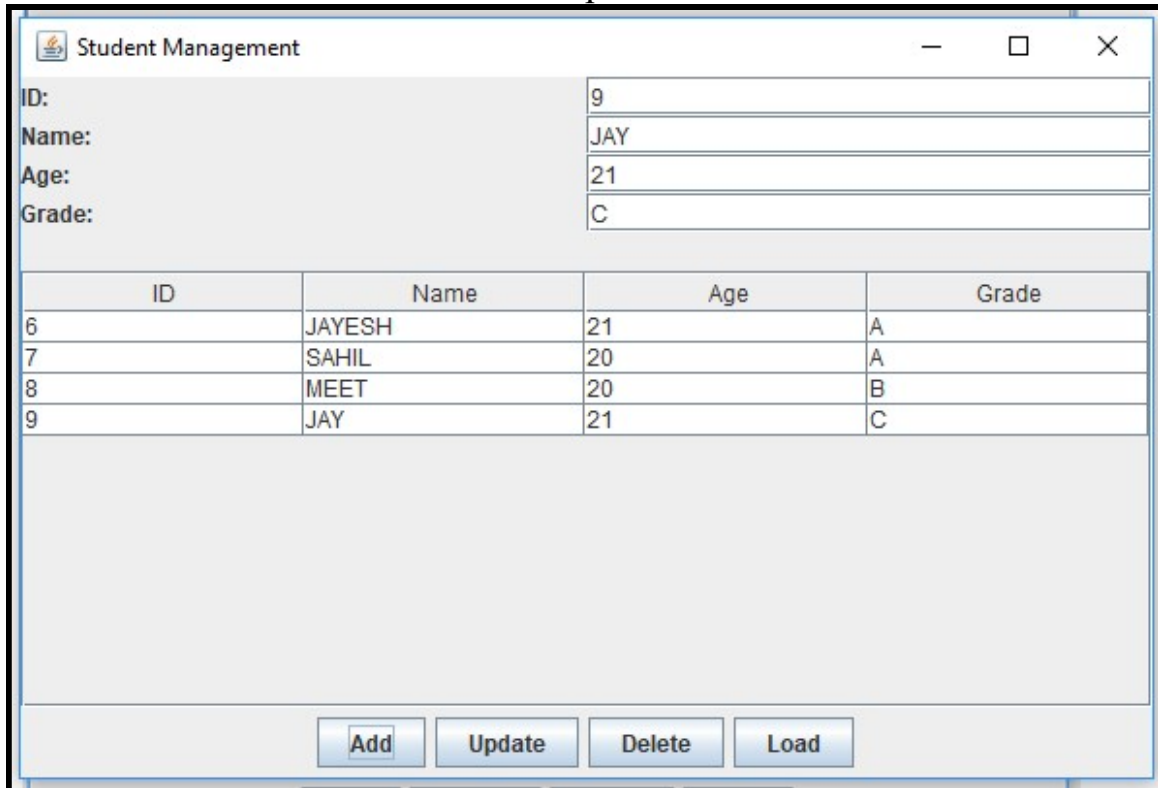
ID	Name	Age	Grade
6	JAYESH	21	A
7	SAHIL	20	A

Third student Data entered and also find the previous student data:

The screenshot shows the same "Student Management" window. The form now has ID: 8, Name: MEET, Age: 20, and Grade: B. The table below the form now has three rows of data: (6, JAYESH, 21, A), (7, SAHIL, 20, A), and (8, MEET, 20, B). The buttons at the bottom remain the same: Add, Update, Delete, and Load.

ID	Name	Age	Grade
6	JAYESH	21	A
7	SAHIL	20	A
8	MEET	20	B

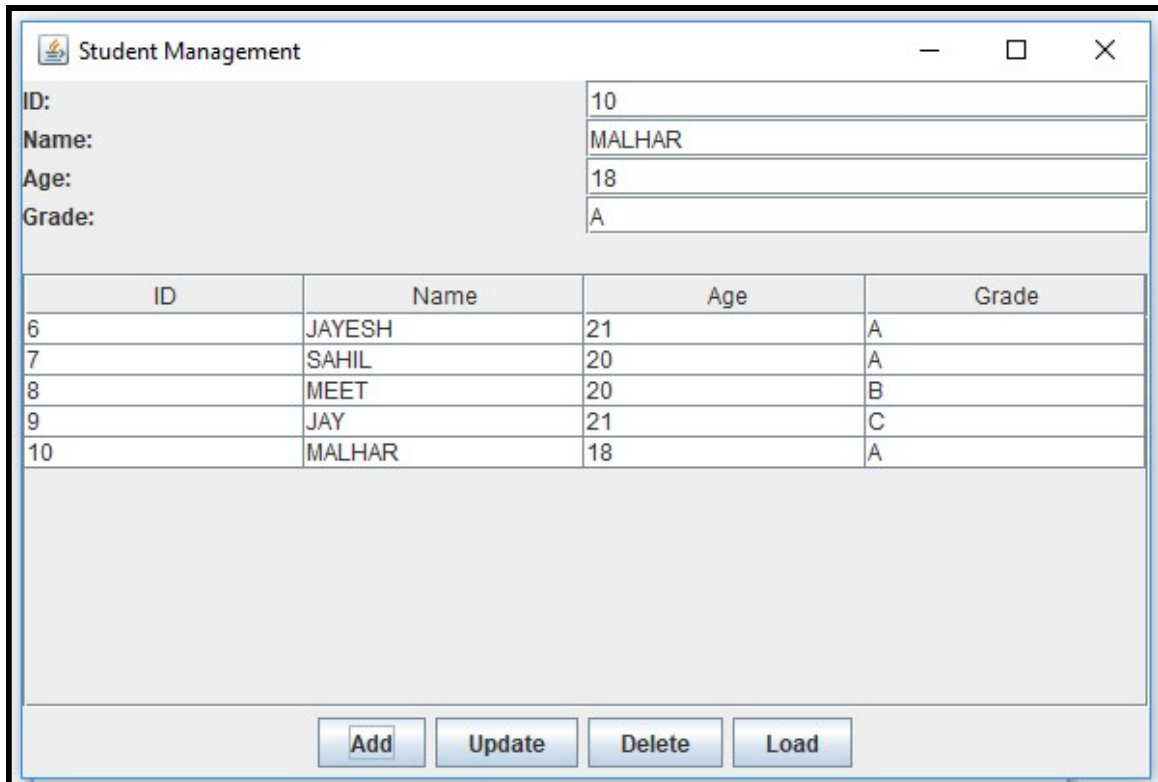
Fourth student Data entered and read operation also done here:



The screenshot shows a window titled "Student Management" with a form for entering student data. The form has four input fields: ID (9), Name (JAY), Age (21), and Grade (C). Below the form is a table with four columns: ID, Name, Age, and Grade. The table contains four rows of data. At the bottom of the window are four buttons: Add, Update, Delete, and Load.

ID	Name	Age	Grade
6	JAYESH	21	A
7	SAHIL	20	A
8	MEET	20	B
9	JAY	21	C

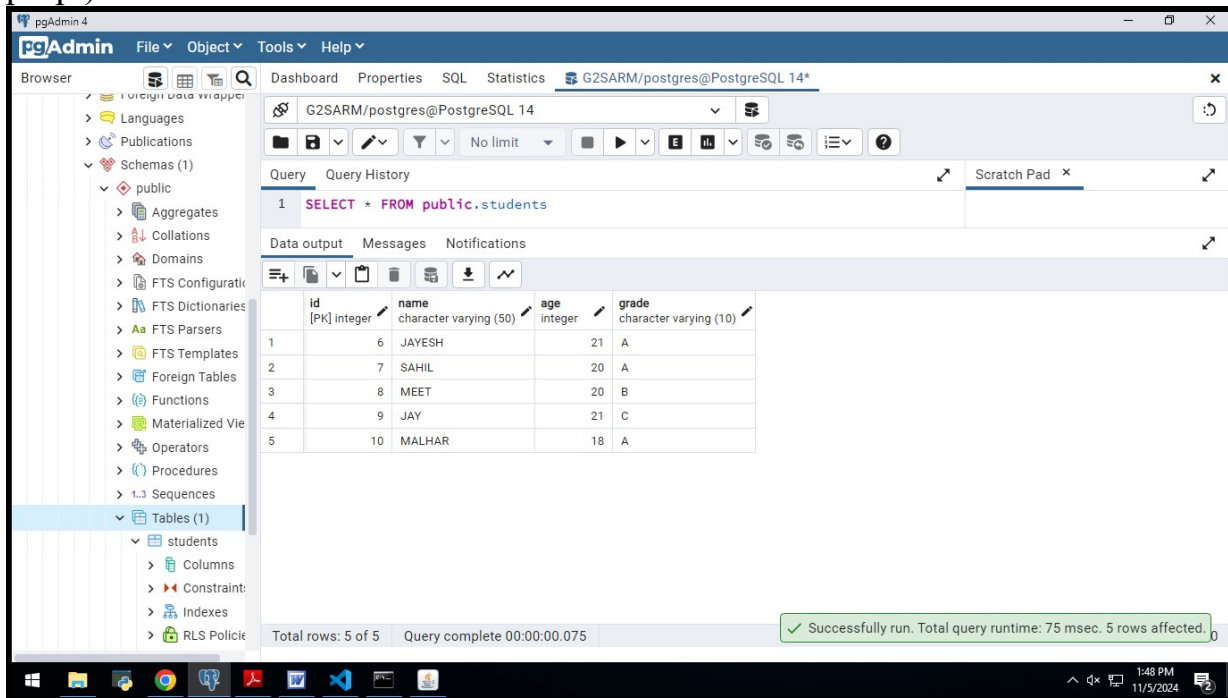
Fifth student Data entered:



The screenshot shows the same "Student Management" window. The form now has five input fields: ID (10), Name (MALHAR), Age (18), and Grade (A). The table below the form now has five rows of data. The buttons at the bottom remain the same.

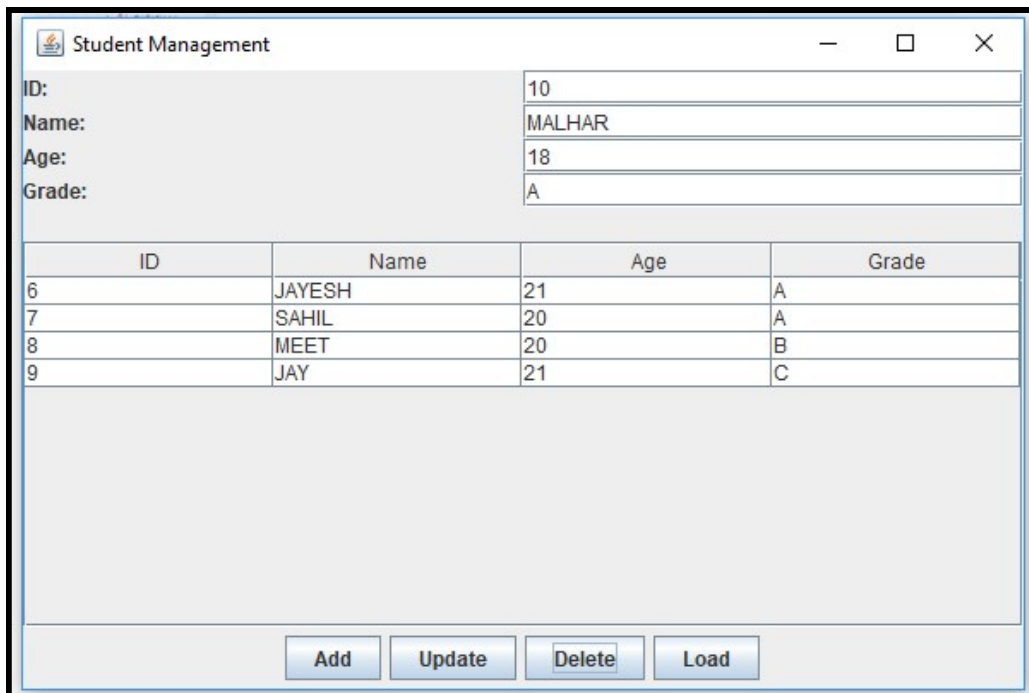
ID	Name	Age	Grade
6	JAYESH	21	A
7	SAHIL	20	A
8	MEET	20	B
9	JAY	21	C
10	MALHAR	18	A

All the students are stored into the database file which is connected to Java file(CRUD propt).

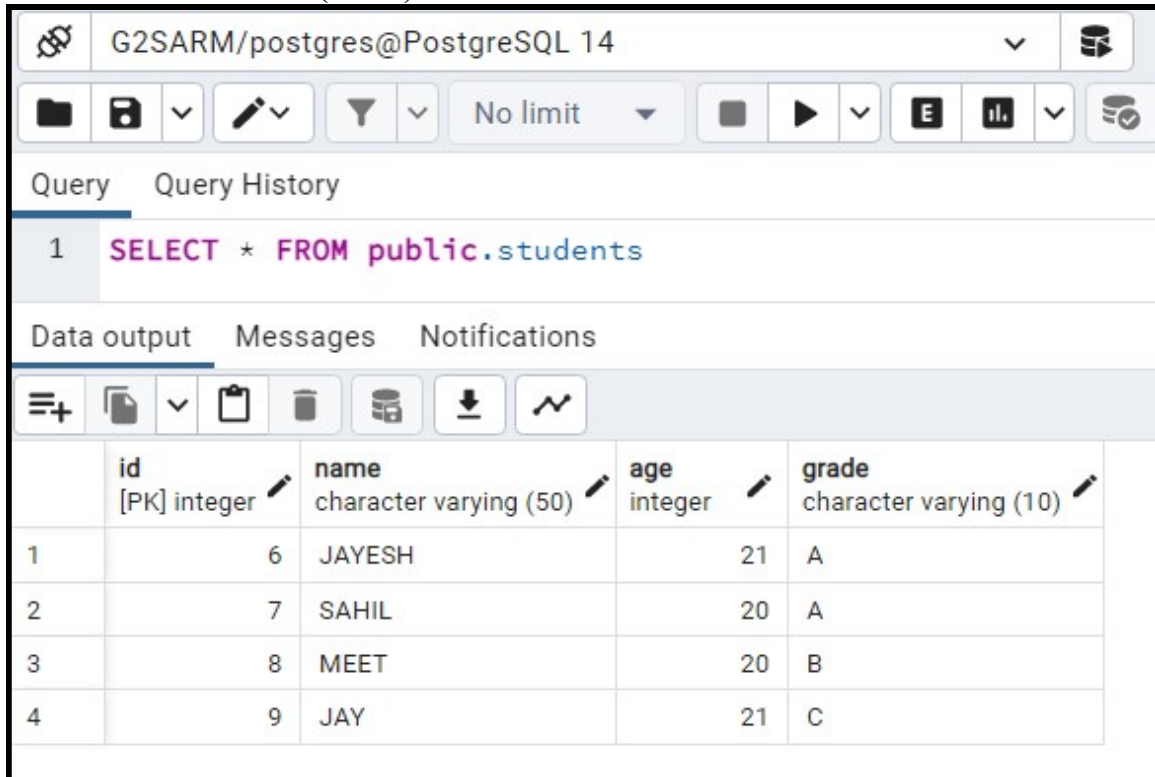


Deletion Operation

The student has id 10th is deleted.



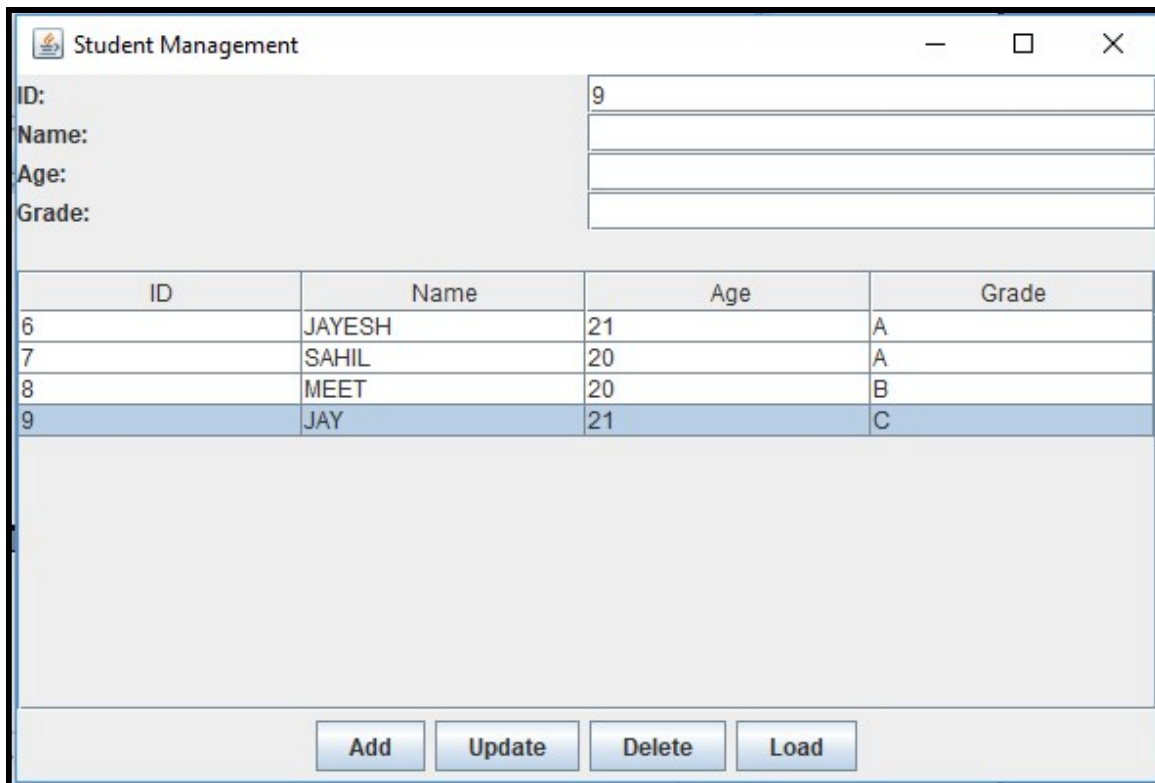
The Deleted student (id 10) is also deleted from database.



The screenshot shows a PostgreSQL query editor interface. The title bar indicates the connection is 'G2SARM/postgres@PostgreSQL 14'. The query editor shows a single query: `SELECT * FROM public.students`. Below the query, the 'Data output' tab is active, displaying a table with 4 rows and 5 columns: `id` (integer), `name` (character varying (50)), `age` (integer), and `grade` (character varying (10)). The data is as follows:

	id	name	age	grade
1	6	JAYESH	21	A
2	7	SAHIL	20	A
3	8	MEET	20	B
4	9	JAY	21	C

The student has id 9th is deleted.



The screenshot shows a 'Student Management' application window. It features a form for adding or updating a student with fields for ID, Name, Age, and Grade. The ID field is currently set to 9. Below the form is a table displaying the current state of the student database:

ID	Name	Age	Grade
6	JAYESH	21	A
7	SAHIL	20	A
8	MEET	20	B
9	JAY	21	C

At the bottom of the window, there are four buttons: 'Add', 'Update', 'Delete', and 'Load'.

Result of deletion

The screenshot shows a window titled "Student Management" with a form and a table. The form has fields for ID, Name, Age, and Grade. The ID field contains the value "9". Below the form is a table with four columns: ID, Name, Age, and Grade. The table contains three rows of data: (6, JAYESH, 21, A), (7, SAHIL, 20, A), and (8, MEET, 20, B). At the bottom of the window are four buttons: Add, Update, Delete, and Load.

ID	Name	Age	Grade
6	JAYESH	21	A
7	SAHIL	20	A
8	MEET	20	B

The student has id 6th is deleted.

The screenshot shows a window titled "Student Management" with a form and a table. The form has fields for ID, Name, Age, and Grade. The ID field contains the value "6". Below the form is a table with four columns: ID, Name, Age, and Grade. The table contains three rows of data: (6, JAYESH, 21, A), (7, SAHIL, 20, A), and (8, MEET, 20, B). At the bottom of the window are four buttons: Add, Update, Delete, and Load.

ID	Name	Age	Grade
6	JAYESH	21	A
7	SAHIL	20	A
8	MEET	20	B

Result after the deletion operation:

The screenshot shows a window titled "Student Management" with a standard Windows interface (minimize, maximize, close buttons). On the left, there are labels for "ID:", "Name:", "Age:", and "Grade:". To the right of these labels are four empty text input fields. Below these fields is a table with four columns: "ID", "Name", "Age", and "Grade". The table contains two rows of data: the first row has ID 7, Name SAHIL, Age 20, and Grade A; the second row has ID 8, Name MEET, Age 20, and Grade B. Below the table is a large empty rectangular area. At the bottom of the window, there are four buttons: "Add", "Update", "Delete", and "Load".

ID	Name	Age	Grade
7	SAHIL	20	A
8	MEET	20	B

The student has id 7th is deleted.

This screenshot shows the same "Student Management" window after a deletion operation. The "ID:" field now contains the value "7". The "Name:", "Age:", and "Grade:" fields remain empty. The table below still shows the same two rows of data: ID 7, Name SAHIL, Age 20, Grade A; and ID 8, Name MEET, Age 20, Grade B. The buttons "Add", "Update", "Delete", and "Load" are still present at the bottom.

ID	Name	Age	Grade
7	SAHIL	20	A
8	MEET	20	B

Except 8th, all the student is deleted
The Final output:

Student Management

ID:

Name:

Age:

Grade:

ID	Name	Age	Grade
8	MEET	20	B

Add

Update

Delete

Load

The student also deleted from database (The database only have one student detail)

pgAdmin 4

FileObjectToolsHelp

Browser

FTS Templates

Foreign Tables

Functions

Materialized Views

Operators

Procedures

Sequences

Tables (1)

students

Columns

Constraints (1)

students_pkey

Indexes

RLS Policies

Rules

Triggers

Trigger Functions

Types

Views

Subscriptions

highway_db

lab_07

postgres

Login/Group Roles

DashboardPropertiesSQLStatisticsG2SARM/postgres@PostgreSQL 14*

G2SARM/postgres@PostgreSQL 14

QueryQuery History

1SELECT * FROM public.students

Data outputMessagesNotifications

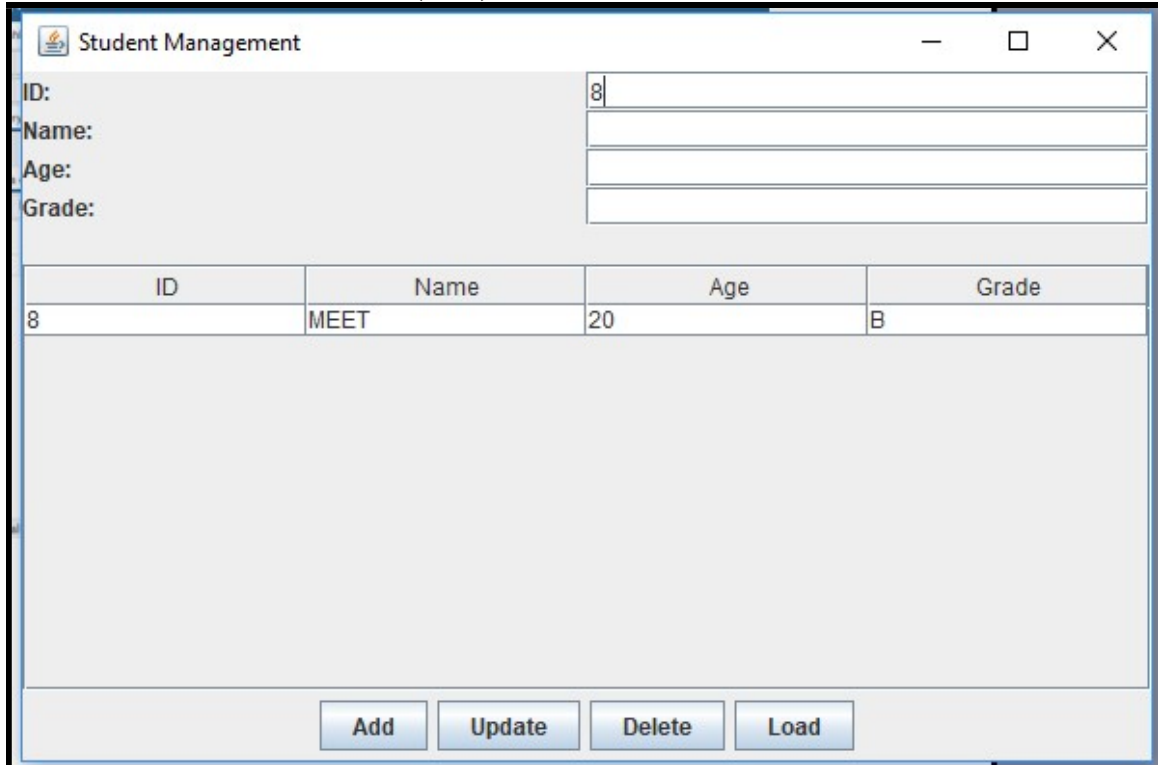
	id	name	age	grade
	[PK] integer	character varying (50)	integer	character varying (10)
1	8	MEET	20	B

Successfully run. Total query runtime: 154 msec. 1 rows affected.

Total rows: 1 of 1Query complete 00:00:00.154Ln 1, Col 30

Update Operation:

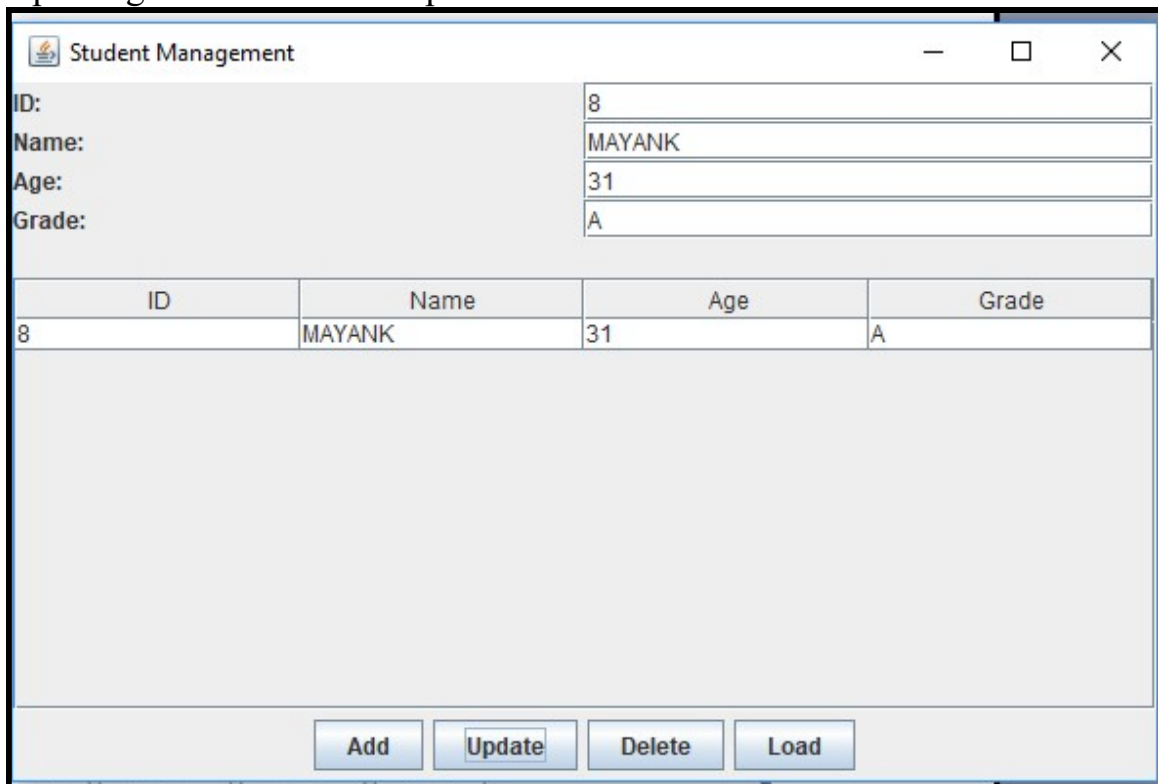
Old data of student MEET (id 8)



The screenshot shows a window titled "Student Management" with a form and a table. The form has four input fields: ID (containing 8), Name (empty), Age (empty), and Grade (empty). Below the form is a table with four columns: ID, Name, Age, and Grade. The table contains one row with the values 8, MEET, 20, and B. At the bottom of the window are four buttons: Add, Update, Delete, and Load.

ID	Name	Age	Grade
8	MEET	20	B

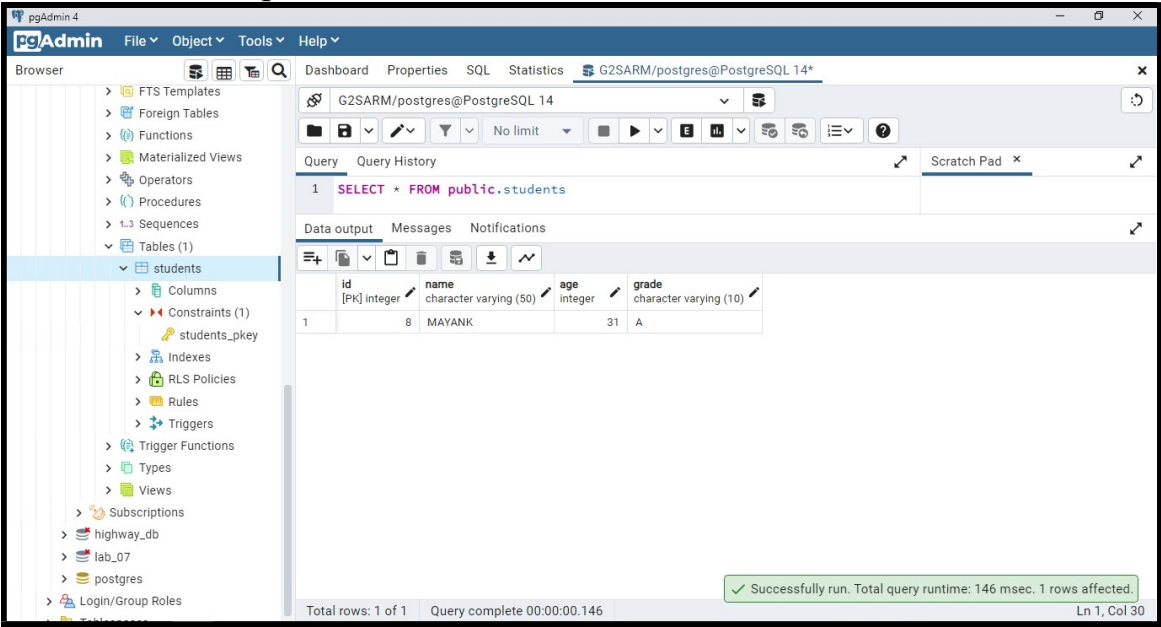
Updating the data and the Updated data of student.



The screenshot shows the same "Student Management" window, but the data has been updated. The form now has ID (8), Name (MAYANK), Age (31), and Grade (A). The table also shows the updated data: ID (8), Name (MAYANK), Age (31), and Grade (A). The buttons at the bottom remain the same: Add, Update, Delete, and Load.

ID	Name	Age	Grade
8	MAYANK	31	A

The data is also updated into database.



Load operation

After the load operation, the latest data is arrived.

