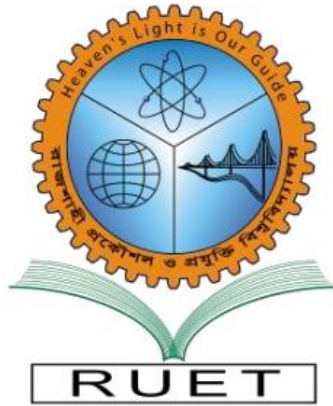


Heaven's Light is Our Guide

Rajshahi University of Engineering and Technology



Department of Electrical & Computer Engineering

Course Code: ECE 2216

Course Title: Database Management System Sessional

Submitted by

Name: Abdur Rafiu

Roll: 2110038

Submitted to

Oishi Jyoti

Assistant Professor

Department of Electrical and Computer
Engineering, RUET

Experiment No: 01

Experiment Name: Create a database containing following info for 10 students

1. Roll
2. Name
3. Semester
4. Major subject
5. Obtained Marks































Task-1: Create a database and table

Code:

```
CREATE DATABASE student;
CREATE TABLE students (
    Roll INT PRIMARY KEY,
    Name VARCHAR(100),
    Semester INT,
    Major_Subject VARCHAR(100),
    Obtained_Marks INT
);
INSERT INTO students (Roll, Name, Semester, Major_Subject,
Obtained_Marks)
VALUES
(1, 'Alice Johnson', 1, 'Mathematics', 85),
(2, 'Bob Smith', 2, 'Physics', 78),
(3, 'Charlie Brown', 1, 'Chemistry', 92),
(4, 'David White', 3, 'Biology', 88),
(5, 'Eva Green', 2, 'Mathematics', 25),
(6, 'Frank Black', 4, 'Computer Science', 91),
(7, 'Grace Clark', 1, 'Physics', 83),
(8, 'Henry Adams', 3, 'Chemistry', 22),
(9, 'Isabella King', 4, 'Biology', 77),
(10, 'Jack Wilson', 2, 'Computer Science', 28);
SELECT * FROM students;
```

Output:

```
CREATE TABLE students ( Roll INT PRIMARY KEY, Name VARCHAR(100), Semester INT, Major_Subject VARCHAR(100), Obtained_Marks INT );
INSERT INTO students (Roll, Name, Semester, Major_Subject, Obtained_Marks) VALUES (1, 'Alice Johnson', 1, 'Mathematics', 85), (2, 'Bob
Smith', 2, 'Physics', 78), (3, 'Charlie Brown', 1, 'Chemistry', 92), (4, 'David White', 3, 'Biology', 88), (5, 'Eva Green', 2,
'Mathematics', 25), (6, 'Frank Black', 4, 'Computer Science', 91), (7, 'Grace Clark', 1, 'Physics', 83), (8, 'Henry Adams', 3, 'Chemistry',
22), (9, 'Isabella King', 4, 'Biology', 77), (10, 'Jack Wilson', 2, 'Computer Science', 28);
```

		Roll	Name	Semester	Major_Subject	Obtained_Marks
<input type="checkbox"/>	 Edit	 Copy	 Delete	1	Alice Johnson	1 Mathematics 85
<input type="checkbox"/>	 Edit	 Copy	 Delete	2	Bob Smith	2 Physics 78
<input type="checkbox"/>	 Edit	 Copy	 Delete	3	Charlie Brown	1 Chemistry 92
<input type="checkbox"/>	 Edit	 Copy	 Delete	4	David White	3 Biology 88
<input type="checkbox"/>	 Edit	 Copy	 Delete	5	Eva Green	2 Mathematics 25
<input type="checkbox"/>	 Edit	 Copy	 Delete	6	Frank Black	4 Computer Science 91
<input type="checkbox"/>	 Edit	 Copy	 Delete	7	Grace Clark	1 Physics 83
<input type="checkbox"/>	 Edit	 Copy	 Delete	8	Henry Adams	3 Chemistry 22
<input type="checkbox"/>	 Edit	 Copy	 Delete	9	Isabella King	4 Biology 77
<input type="checkbox"/>	 Edit	 Copy	 Delete	10	Jack Wilson	2 Computer Science 28

Task-2: Change a specific column name and data type

Code:

```
ALTER TABLE students
CHANGE Obtained_Marks Total_Marks FLOAT;
```

Output:

```
ALTER TABLE students CHANGE Obtained_Marks Total_Marks FLOAT;
```































Task-3: Add a new column named as log. Set the value applicable and not applicable for the condition

Code:

```
ALTER TABLE students
ADD log VARCHAR(20);
UPDATE students
SET log = CASE
    WHEN Total_Marks < 30 THEN 'Applicable'
    ELSE 'Not Applicable'
END;
```

Output:

```
ALTER TABLE students ADD log VARCHAR(20);
```

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<input type="checkbox"/>	 Edit	 Copy	 Delete	1	Alice Johnson	1	Mathematics	85	Not Applicable
<input type="checkbox"/>	 Edit	 Copy	 Delete	2	Bob Smith	2	Physics	78	Not Applicable
<input type="checkbox"/>	 Edit	 Copy	 Delete	3	Charlie Brown	1	Chemistry	92	Not Applicable
<input type="checkbox"/>	 Edit	 Copy	 Delete	4	David White	3	Biology	88	Not Applicable
<input type="checkbox"/>	 Edit	 Copy	 Delete	5	Eva Green	2	Mathematics	25	Applicable
<input type="checkbox"/>	 Edit	 Copy	 Delete	6	Frank Black	4	Computer Science	91	Not Applicable
<input type="checkbox"/>	 Edit	 Copy	 Delete	7	Grace Clark	1	Physics	83	Not Applicable
<input type="checkbox"/>	 Edit	 Copy	 Delete	8	Henry Adams	3	Chemistry	22	Applicable
<input type="checkbox"/>	 Edit	 Copy	 Delete	9	Isabella King	4	Biology	77	Not Applicable
<input type="checkbox"/>	 Edit	 Copy	 Delete	10	Jack Wilson	2	Computer Science	28	Applicable






















Task-4: delete the students info whose marks are below 30

Code:

```
DELETE FROM students
WHERE Total_Marks < 30;
```

Output:

```
DELETE FROM students WHERE Total_Marks < 30;
```

<div><div>←</div><div>T</div><div>→</div></div>				▼	Roll	Name	Semester	Major_Subject	Total_Marks	log
<input type="checkbox"/>	 Edit	 Copy	 Delete		1	Alice Johnson	1	Mathematics	85	Not Applicable
<input type="checkbox"/>	 Edit	 Copy	 Delete		2	Bob Smith	2	Physics	78	Not Applicable
<input type="checkbox"/>	 Edit	 Copy	 Delete		3	Charlie Brown	1	Chemistry	92	Not Applicable
<input type="checkbox"/>	 Edit	 Copy	 Delete		4	David White	3	Biology	88	Not Applicable
<input type="checkbox"/>	 Edit	 Copy	 Delete		6	Frank Black	4	Computer Science	91	Not Applicable
<input type="checkbox"/>	 Edit	 Copy	 Delete		7	Grace Clark	1	Physics	83	Not Applicable
<input type="checkbox"/>	 Edit	 Copy	 Delete		9	Isabella King	4	Biology	77	Not Applicable