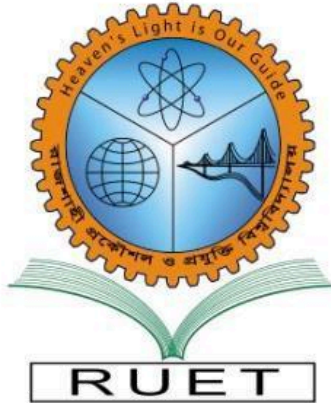


*Heaven's Light is Our Guide*

## **Rajshahi University of Engineering and Technology**



### **Department of Electrical & Computer Engineering**

**Course Code:** ECE 2216

**Course Title:** Database Management System Sessional

Submitted by

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Submitted to

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## Experiment No: 02

### Experiment Name: Database query using sql

**Task-1: Find students who are older than 20 and have a GPA above the average GPA of all students**

**Code:**

```
SELECT student_name, age, GPA
FROM Students
WHERE age > 20
AND GPA > (SELECT AVG(GPA) FROM Students);
```

**Output:**

	student_name	age	GPA
▶	Eleven	21	3.8
	Dustin	22	3.9
	Mike	23	3.7
	Eddie	22	4.0
	Steve	21	3.8
	Nancy	23	3.9

**Task-2: Find the top 5 students with the highest fees paid, ordered by GPA (in descending order) as a tiebreaker**

**Code:**

```
SELECT student_name, fees_paid, GPA
FROM Students
ORDER BY fees_paid DESC, GPA DESC
LIMIT 5;
```

**Output:**

Result Grid			
Filter Rows:			
	student_name	fees_paid	GPA
▶	Max	12000.00	3.5
	Robin	11000.00	3.6
	Steve	10500.00	3.8
	Eleven	10000.00	3.8
	Nancy	9500.00	3.9

**Task-3: List students who belong to the "Engineering" department, have a GPA greater than 3.5, and are enrolled after 2020**

**Code:**

```
SELECT student_name, department, GPA, year_of_admission
FROM Students
WHERE department = 'Engineering'
AND GPA > 3.5
AND year_of_admission > 2020;
```

**Output:**

Result Grid					Filter Rows:	Export:	Wrap
	student_name	department	GPA	year_of_admission			
▶	Eleven	Engineering	3.8	2021			
	Robin	Engineering	3.6	2022			

**Task-4: Find students who are not active (i.e., enrollment\_status = 'inactive') and have not paid any fees (fess\_paid = 0)**

**Code:**

```
SELECT student_name, enrollment_status, fees_paid
FROM Students
WHERE enrollment_status = 'inactive'
AND fees_paid = 0;
```

**Output:**

student_name	enrollment_status	fees_paid
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**Task-5: Calculate the total fees paid and average GPA for each department, but only for departments with more than 10 students**

**Code:**

```
• SELECT department, SUM(fees_paid) AS total_fees_paid, AVG(GPA) AS average_GPA
FROM Students
GROUP BY department
HAVING COUNT(student_id) > 10;
```

**Output:**

