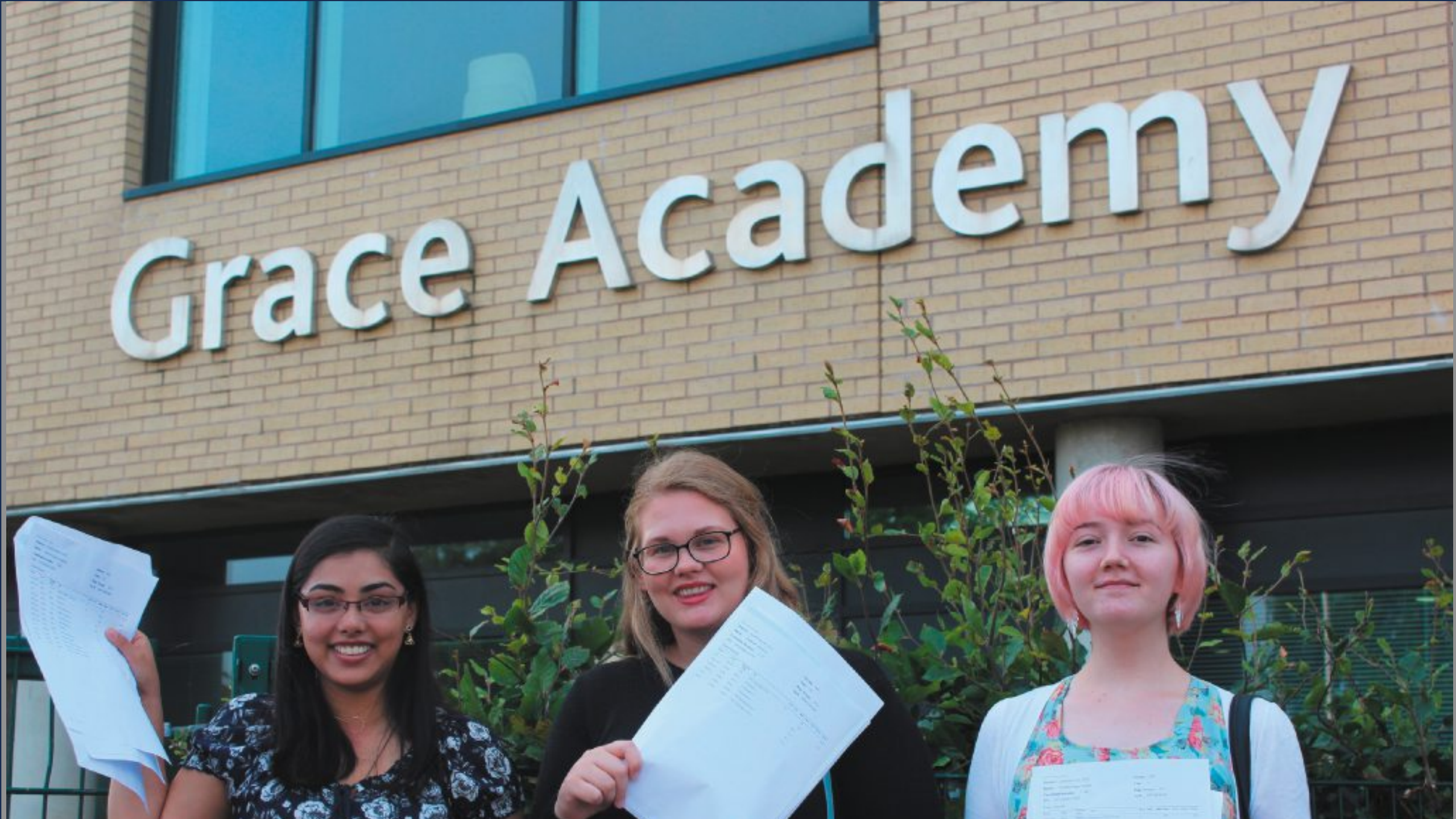

Grace Academy

Business Introduction

Grace EdTech offers a variety of courses across different departments. Each course is taught by a dedicated teacher, and students receive scores upon completion.

The departments at Grace EdTech specialize in technology and data analysis, providing an essential learning platform for students. The data includes details about courses, departments, teacher assignments, and student performance.

James Ehiabhi

Business Situation

Grace EdTech has recently found itself in a transitional period as their long-standing data analyst has just left the organization. In light of this departure, they have turned to you to step in as the interim data analyst.

Grace EdTech relies heavily on data-driven insights to make informed decisions about their curriculum development, teacher allocations, and student performance assessments. Your role will involve utilizing your SQL skills to delve into their educational datasets to extract specific information.

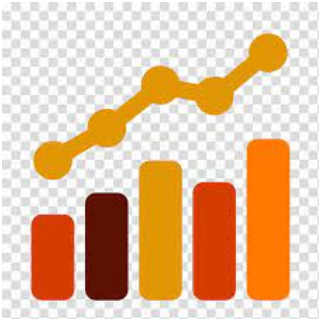
James Ehiabhi

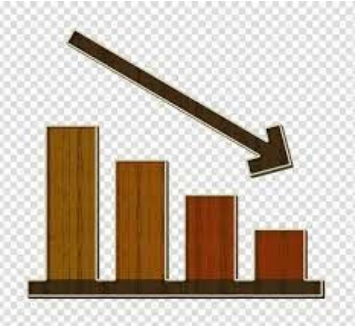
Task

1. Retrieve all course names and their units from the courses table.
2. Find the names of all female teachers.
3. List all students who scored more than 80 in any course.
4. Find the highest salary among all teachers.
5. Calculate the average score for each course.
6. Get the ID of the students that scored above average.
7. Find the department with the most number of courses and list the department name along with the number of courses.
8. Retrieve the student who has the highest total score across all courses.
9. Get the number of male and female teachers in the dataset.

James Ehiabhi

Data Querying language (DQL) Functions





Selection and Filtering statements:

- **SELECT:** Used to retrieve data from one or more tables in a database, specifying the columns to be retrieved.
- **DISTINCT:** Used in conjunction with SELECT to remove duplicate rows from the result set.
- **WHERE:** Used to filter records that meet certain conditions, specifying criteria that must be met for rows to be included in the result set.

Grouping and Aggregation:

- **GROUP BY:** Groups rows that have the same values in specified columns into summary rows, often used with aggregate functions to perform operations on each group of rows.
- **ORDER BY:** Used to sort the result set of a query by one or more columns, with sorting done in ascending or descending order.
- **COUNT:** Returns the number of rows that match a specified condition, often used with the GROUP BY clause.