

Lecture Notes – Filtering Columns

Section 1: Lecture Summary

The lecture covers filtering columns in SELECT statements using the companyDB. It explains replacing * with specific column names to retrieve only required data from tables like Employees, Projects, and Departments. English-form queries are converted to SQL, demonstrating selection of columns such as first name, last name, job title, salary, project name, and department details in any order.

Section 2: Key Concepts and Explanations

****Filtering columns**** involves specifying column names after SELECT instead of *, limiting output to desired fields from the table listed in FROM. Columns can be listed in any order, regardless of their position in the table schema. Always start with FROM to identify the table source. English-form requirements, like "display first name, last name, and job title," guide query construction: SELECT FirstName, LastName, JobTitle FROM Employees. Use ****USE companyDB**** to specify the database before queries if multiple exist. Future topics include formulas and concatenation on columns.

Section 3: Example Code and Use Cases

```
USE companyDB;
```

```
SELECT FirstName, LastName, JobTitle FROM Employees;
```

```
SELECT JobTitle, Salary FROM Employees;
```

```
SELECT ProjectName FROM Projects;
```

```
SELECT DeptName, DeptID FROM Departments;
```

Section 4: Key Takeaways

Practice converting English requirements to SELECT statements with specific columns. Know table schemas to identify correct columns and sources. Execute queries selectively in MySQL Workbench for accurate results. Column order in SELECT is flexible.