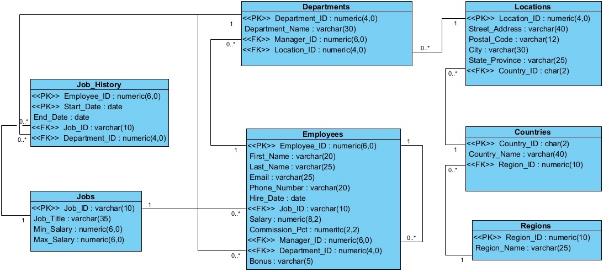
Databases 6G4Z0016 Labsheet

# Topic 2 – WHERE, ORDER BY and LIMIT



# Part One – Topic 1 Recap

### Q1: List the employees who earn more than 7,000 in alphabetical order by surname

SELECT first\_name, last\_name, salary  
FROM Employees  
WHERE **[BLANK]**  
ORDER BY **[BLANK]**;

A screenshot of a computer

Description automatically generated

SELECT first\_name, last\_name, salary

FROM Employees

WHERE salary >7000

ORDER BY last\_name asc;

### Q2: List the locations outside the US in alphabetical order of city

SELECT \*  
FROM Locations  
WHERE **[BLANK]**  
ORDER BY **[BLANK]**;



### SELECT \*

### FROM Locations

### where country\_id !="US"

### ORDER BY city asc;

### Q3: List the employees who started work before 2016 in order of their start date (from earliest to latest)

SELECT first\_name, last\_name, hire\_date  
FROM Employees  
**[BLANK]**  
ORDER BY hire\_date ASC;

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SELECT first\_name, last\_name, hire\_date

FROM Employees

where hire\_date <'2016-01-01'

ORDER BY hire\_date ASC;

### Q4: List the jobs in administration in order of highest possible salary to lowest

SELECT job\_title, min\_salary, max\_salary  
FROM Jobs  
**[BLANK]**;

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SELECT job\_title, min\_salary, max\_salary

FROM Jobs

where job\_id like 'AD%'

order by max\_salary DESC;

### Q5: List the employees earning between 4000 and 6000, inclusive, in reverse alphabetical order by firstname

SELECT first\_name, last\_name, salary  
FROM Employees  
**[BLANK]**;

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SELECT first\_name, last\_name, salary

FROM Employees

where salary between 4000 and 6000;

### Q6: List the employees in departments 50, 60 and 80 in alphabetical order of their surname but all employees with the same manager should appear one after the other

SELECT first\_name, last\_name, department\_id, manager\_id  
FROM Employees  
**[BLANK]**;

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SELECT first\_name, last\_name, department\_id, manager\_id

FROM Employees

where department\_id = 50 or department\_id = 60 or department\_id= 80

order by manager\_id asc, last\_name asc;

### Q7: List the employees in order of their departments (from highest to lowest and salaries from lowest to highest. Leave out anyone earning more than 11,000 or less than 3,250.

SELECT first\_name, last\_name, department\_id, salary  
FROM Employees  
**[BLANK]**;

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SELECT first\_name, last\_name, department\_id, salary

FROM Employees

where salary >3250 and salary <11000

order by department\_id desc, salary asc;

### Q8: Find the highest paid employee in department 50

SELECT first\_name, last\_name, department\_id, salary  
FROM Employees  
WHERE department\_id = 50  
**[BLANK]**;

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SELECT first\_name, last\_name, department\_id, salary

FROM Employees

WHERE department\_id = 50

limit 1 ;

# Part Two – Row Functions and Aliases

### Q1: The company wants to give a Christmas bonus to all employees of 5% of their annual salary. Produce a list of employee names and their bonuses.

SELECT first\_name, last\_name, salary, **[BLANK]** AS 'bonus'  
FROM Employees;

A screenshot of a table

Description automatically generated

### Q2: For each employee, list the number of months they have been working for the company.

SELECT first\_name, last\_name, **[BLANK]** AS 'months worked'  
FROM Employees;

A screenshot of a computer

Description automatically generated

### Q3: For every employee, calculate what their pay would be if they received a 10% pay rise.

SELECT first\_name, last\_name, **[BLANK]** AS 'new salary'  
FROM Employees;

A screenshot of a table with numbers

Description automatically generated

### Q4: For every employee, generate their email address by adding “@company.com”

SELECT first\_name, last\_name, **[BLANK]** AS 'email'  
FROM Employees;

A screenshot of a computer

Description automatically generated

### Q5: List the regions the company operates in, giving the column name “Regions Company Operates In”.

SELECT region\_name **[BLANK]**FROM Regions;

A screenshot of a computer

Description automatically generated

### Q6: List all the employees and their initials

SELECT first\_name, last\_name, **[BLANK]** AS 'Initials'  
FROM Employees;

A screenshot of a computer

Description automatically generated

### Q7: Give the phone numbers of employees but instead of full-stops to separate the groups of numbers, use dashes instead

SELECT first\_name, last\_name, **[BLANK]** AS 'phone number'  
FROM Employees;

A screenshot of a computer

Description automatically generated

### Q8: For each employee, give their full name and the number of letters in their name

SELECT first\_name, last\_name, **[BLANK]** AS 'number of letters'  
FROM Employees;

A table of names

Description automatically generated

# Part Three – Group Functions, LIKE and NULLs

### Q1: List the job titles with “Rep” in the title

SELECT job\_title  
FROM Jobs  
**[BLANK]**;

A screenshot of a computer

Description automatically generated

### Q2: Calculate the average bonus

SELECT **[BLANK]** AS 'average'  
FROM Employees;

A close up of numbers

Description automatically generated

### Q3: List all the job titles starting with the letter S.

SELECT job\_title  
FROM Jobs  
**[BLANK]**;

A screenshot of a computer

Description automatically generated

### Q4: List all the employees who earn a bonus

SELECT first\_name, last\_name, bonus  
FROM Employees  
**[BLANK]**;

A screenshot of a computer

Description automatically generated

### Q5: List the employees whose phone numbers contain the numbers “123”

SELECT first\_name, last\_name, phone\_number  
FROM Employees  
**[BLANK]**;

A screenshot of a computer

Description automatically generated

### Q6: Calculate the total paid out in salaries

SELECT **[BLANK]** AS 'total'  
FROM Employees;

A screenshot of a number

Description automatically generated

### Q7: List the employees who don't have a manager

SELECT first\_name, last\_name, manager\_id  
FROM Employees  
**[BLANK]**;

A close up of a computer screen

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### Q8: List all the employees whose surname or first name ends with an N

SELECT first\_name, last\_name  
FROM Employees  
**[BLANK]**;

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# Part Four – Deliberate Practice

### Q1. Calculate the highest and lowest salary of all the employees whose first names either begin with an A or E

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### Q2. For every job, list the title and the min and max salaries after first increasing them by 25%

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### Q3. Calculate the employees' full pay (salary plus bonus) but only include the rows where this makes sense

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### Q4: Calculate how many employees earn commission

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### Q5: List the employees and the month they were hired in.

A table of names

Description automatically generated

### Q6: List the employees and their salaries to the nearest 1,000

A screenshot of a table

Description automatically generated

### Q7: List the fifth to eighth characters of each employees full names (i.e. first name and surname with a space), inclusive.

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### Q8. List the names of the employees and what percentage of their salary their bonus is. Give the percentage to two decimal places and include the percentage sign. If an employee does not receive a bonus, their percentage should be shown as 0%

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