

## Lab#1

Total Points=10

### Data Manipulation

It is important to be able to extract, filter, and transform data samples from datasets in order to drill into the data that really matters. Students will use SQL query to make this process efficient and intuitive.

### SQL Queries

#### Solve all three SQL questions

Q1). You are given a **Company.db** file. Write an SQL Query to find Employee\_ID, Employee Name and the total bonus each employee received.

Your final output should contain three columns: 'Employee\_ID', 'Name' and 'Total\_Bonus'. Your 'Name' Column should be first name **followed** by last name. The 'Total\_Bonus' column is the **total bonus** of those employees who where awarded bonus.

If your query executes correctly, you should be getting the following result (3 records will be returned)

|   | EMPLOYEE_ID | Name         | Total_Bonus |
|---|-------------|--------------|-------------|
| 1 | 1           | James Smith  | 9500        |
| 2 | 2           | Jessica Kohl | 6500        |
| 3 | 3           | Alex Garner  | 4000        |

Q2). You are given a **Department\_store.db** file. Write a SQL query to find the names of salespeople that have 2 or more orders.

Your final output should contain two columns: 'Salesperson Name', and 'Number of orders' arranged in **descending order** of 'Number of Orders'.

If your query executes correctly, you should be getting the following result (2 records will be returned)

|   | Salesperson | Number of orders |
|---|-------------|------------------|
| 1 | Dan         | 3                |
| 2 | Bob         | 2                |

Q3). You are given a **School. db** file. Write an SQL to find out what **percent** of students attend school on their birthday from attendance\_events and all\_students tables?

If your query executes correctly, you should be getting the following result.

|   | Percent |
|---|---------|
| 1 | 22      |

### Submission Format:

1. A word file containing screenshots of your SQL query and its result. Something like below:

```

18 SELECT *
19 from attendance_events
20 JOIN all_students
21 on attendance_events.student_id = all_students.student_id;
22

```

SQL query

|   | date_event | student_id | attendance | student_id | school_id | grade_level | date_of_birth | hometown   |
|---|------------|------------|------------|------------|-----------|-------------|---------------|------------|
| 1 | 2018-01-10 | 110111     | present    | 110111     | 205       | 1           | 2013-01-10    | Pleasanton |
| 2 | 2018-01-10 | 110121     | present    | 110121     | 205       | 3           | 2011-01-13    | Dublin     |
| 3 | 2018-01-12 | 110115     | absent     | 110115     | 205       | 1           | 2013-03-15    | Dublin     |
| 4 | 2018-01-13 | 110119     | absent     | 110119     | 205       | 2           | 2012-02-13    | San Ramon  |
| 5 | 2018-01-13 | 110121     | present    | 110121     | 205       | 3           | 2011-01-13    | Dublin     |
| 6 | 2018-01-14 | 110125     | present    | 110125     | 205       | 2           | 2012-04-25    | Dublin     |
| 7 | 2018-02-05 | 110111     | absent     | 110111     | 205       | 1           | 2013-01-10    | Pleasanton |
| 8 | 2018-02-17 | 110115     | present    | 110115     | 205       | 1           | 2013-03-15    | Dublin     |
| 9 | 2018-02-22 | 110129     | absent     | 110129     | 205       | 3           | 2011-02-22    | San Ramon  |

Result

Please make sure that I am able to see your entire query when you take the screenshot.

### **Academic Integrity and Late submission:**

Assignments are due by the due date announced in class and posted on DC Connect. At his or her own discretion, and depending on the nature of the assignment, each professor will provide a facility for the submission of late assignments up to a maximum of 72 hours after the assignment due date. All allowed late submissions will be assessed a penalty of 25% of the total possible grade for the assignment. Assignments should be submitted on time, on a regular basis, to enable you to stay on track within the class.

Any violation of academic integrity will not be accepted and will be given a grade of zero (0). Please watch this video on academic integrity.  
[https://www.youtube.com/watch?v=BnEw72e\\_YYo&feature=youtu.be](https://www.youtube.com/watch?v=BnEw72e_YYo&feature=youtu.be)

**Due Date: 31 January, 2022 by 11.59 PM.**