# RDB Assessment

Welcome to the course assessment for the RDB module!

In this session, you will complete the RDB project.

By the end of this session, you will be able to:

● Apply SQL techniques for querying, aggregating and joining data.

● Solve the given challenges using SQL.

Put your Relational Databases development skills to the test! Use your knowledge of SQL to analyse Codecademy learners data.

After completing it, make sure you come back to complete a reflection.

**Directions:**

● **Send** a link to your repository to your instructor.

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● **Reflect** on the following questions.

**Questions:**

* **What did you like about this project?**

### I can pull some data together ;)

* **What did you struggle with in this project?**

### **How to u**se the correct SQL statement to pull the exact data.

* **What would make your experience with this assessment better?**

### More practices.

Deadline: 7th Dec 2021, 6pm

### Task: Use your knowledge of SQL and analyze some mockup learners data.

### Download this document and place your SQL solution and the printscreen of the result outputs in the respective question area.

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There are two tables provided:

users table:

* user\_id
* email\_domain
* Country
* City
* postal
* mobile\_app

progress table:

* user\_id
* learn\_cpp
* learn\_sql
* learn\_html
* learn\_javascript
* learn\_java

### 

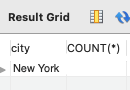
### Answer the following questions. You are required to paste your SQL scripts and the printscreen of the result outputs to the respective questions.

1. First, use SELECT \* from both tables and use your knowledge of queries and aggregate functions to get to know the data:  
   1. What are the Top 25 schools with the most number of students in descending order (**.edu** domains)? Please filter by the School email domain and the Number of User.

image3.png

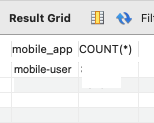
|  |
| --- |
| *SELECT email\_domain, COUNT(\*) AS NumberOfUser FROM users*  *GROUP BY email\_domain*  *ORDER BY COUNT(email\_domain) DESC*  *LIMIT 25;* |

* 1. How many **.edu** learners are located in New York?



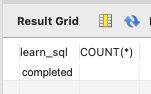
|  |
| --- |
| SELECT city, COUNT(\*) FROM users WHERE city = "New York"; |

* 1. The mobile\_app column contains either mobile-user or NULL (Empty). How many of these learners are using the mobile app and how many are not?

**

|  |
| --- |
| SELECT mobile\_app, COUNT(\*) FROM users  WHERE mobile\_app = “mobile-user";  #OR mobile\_app != "mobile-user"; |

* 1. How many students have completed sql from their respective Schools?



|  |
| --- |
| Select learn\_sql, count(\*)  from progress  where learn\_sql = "completed"; |

1. Join the two tables using JOIN and then see what you can dig out of the data!
   1. List the details of the students taking different courses from the TOP School (**.edu** domains of the first record from Question 1a aka the number 1 school).
   2. Which module is most popular among the students from the Top School, and which module is the least popular among the students?

image2.png

|  |
| --- |
| SELECT users.user\_id, users.email\_domain, users.city, users.country,  progress.learn\_cpp, progress.learn\_sql, progress.learn\_html, progress.learn\_javascript, progress.learn\_java  FROM progress  INNER JOIN users  ON users.email\_domain = "[ucsd.edu](http://ucsd.edu)"  OR users.email\_domain = "[cps.edu](http://cps.edu)"  OR users.email\_domain = "[ku.edu](http://ku.edu)"  OR users.email\_domain = "[vt.edu](http://vt.edu)"  OR users.email\_domain = "[oregonstate.edu](http://oregonstate.edu)"; |

* 1. What courses are the New Yorkers students taking? (List according to ascending order of email\_domain)

image1.png

|  |
| --- |
| SELECT users.email\_domain, users.country, users. city, progress.learn\_cpp, progress.learn\_sql, progress.learn\_html, progress.learn\_javascript, progress.learn\_java  FROM progress  INNER JOIN users  ON users.city = "New York"  ORDER BY email\_domain ASC; |

* 1. What courses are the Chicago students taking? (List according to ascending order of email\_domain)

image1.png

|  |
| --- |
| SELECT users.email\_domain, users.country, users. city, progress.learn\_cpp, progress.learn\_sql, progress.learn\_html, progress.learn\_javascript, progress.learn\_java  FROM progress  INNER JOIN users  ON users.city = "Chicago"  ORDER BY email\_domain ASC; |

* 1. List the details of the students completed sql and java from their respective Schools (**.edu** domains) (List according to ascending order of email\_domain)

image4.png

|  |
| --- |
| SELECT users.email\_domain, users.country, users.city, users.user\_id, progress.learn\_sql, progress.learn\_java  FROM users  INNER JOIN progress  ON progress.learn\_sql = "completed"  OR progress.learn\_java = "completed"  ORDER BY email\_domain ASC; |

* 1. List the details of the students with their modules progress in the City that starts with ‘F’ or the City that ends with ‘D’.

image2.png

|  |
| --- |
| SELECT users.user\_id, users.email\_domain, users.city, users.country, progress.learn\_sql, progress.learn\_javascript, progress.learn\_java  FROM progress, users  WHERE users.city LIKE 'F%'  OR users.city LIKE '%D'; |