# 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?**

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

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

### 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

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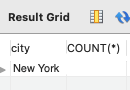
### Answer the following questions. You are required to paste your SQL scripts and the printscreen of the result outputs to the respective questions.

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.



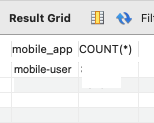
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| *Paste your SQL scripts and the printscreen of the result outputs here*  SELECT email\_domain, count(\*) as NumberOfUser FROM users group by email\_domain order by NumberOfUser desc limit 25; |

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



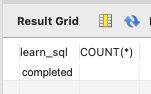
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| *Paste your SQL scripts and the printscreen of the result outputs here*  SELECT city, count(\*) from users where city ="New York"; |

* 1. The mobile\_app column contains either mobile-user or NULL. How many of these learners are using the mobile app?

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| *Paste your SQL scripts and the printscreen of the result outputs here*  SELECT mobile\_app, count(\*) from users group by mobile\_app; |

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



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| *Paste your SQL scripts and the printscreen of the result outputs here*  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).
   2. Which module is most popular among the students from the School, and which module is the least popular among the students?



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| *Paste your SQL scripts and the printscreen of the result outputs here*  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 users  join progress  on users.user\_id = progress.user\_id  join  (select email\_domain, count(email\_domain) as NumberofUser  from users  group by email\_domain  order by NumberofUser desc limit 1) as topSchool  on users.email\_domain = topSchool.email\_domain;      #2b) learn\_cpp  Select count(\*) as learn\_cpp from (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 users  join progress  on users.user\_id = progress.user\_id  join  (select email\_domain, count(email\_domain) as NumberofUser  from users  group by email\_domain  order by NumberofUser desc limit 1) as topSchool  on users.email\_domain = topSchool.email\_domain) as kk  where kk.learn\_cpp !="";    2b) learn\_sql  Select count(\*) as learn\_sql from (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 users  join progress  on users.user\_id = progress.user\_id  join  (select email\_domain, count(email\_domain) as NumberofUser  from users  group by email\_domain  order by NumberofUser desc limit 1) as topSchool  on users.email\_domain = topSchool.email\_domain) as kk  where kk.learn\_sql !="";    #2b) learn\_html  Select count(\*) as learn\_html from (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 users  join progress  on users.user\_id = progress.user\_id  join  (select email\_domain, count(email\_domain) as NumberofUser  from users  group by email\_domain  order by NumberofUser desc limit 1) as topSchool  on users.email\_domain = topSchool.email\_domain) as kk  where kk.learn\_html !="";    #2b) learn\_javascript  Select count(\*) as learn\_javascript from (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 users  join progress  on users.user\_id = progress.user\_id  join  (select email\_domain, count(email\_domain) as NumberofUser  from users  group by email\_domain  order by NumberofUser desc limit 1) as topSchool  on users.email\_domain = topSchool.email\_domain) as kk  where kk.learn\_javascript !="";    #2b) learn\_java  Select count(\*) as learn\_java from (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 users  join progress  on users.user\_id = progress.user\_id  join  (select email\_domain, count(email\_domain) as NumberofUser  from users  group by email\_domain  order by NumberofUser desc limit 1) as topSchool  on users.email\_domain = topSchool.email\_domain) as kk  where kk.learn\_java !="";    TopSchool : ucsd.edu  Most popular course :  Least popular : |

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



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| *Paste your SQL scripts and the printscreen of the result outputs here*  SELECT email\_domain, country, city, learn\_cpp, learn\_sql, learn\_html, learn\_javascript, learn\_java  from users  join progress  on users.user\_id = progress.user\_id  where users.city ="New York"  order by email\_domain; |

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



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| *Paste your SQL scripts and the printscreen of the result outputs here*  SELECT email\_domain, country, city, learn\_cpp, learn\_sql, learn\_html, learn\_javascript, learn\_java  from users  join progress  on users.user\_id = progress.user\_id  where users.city ="Chicago"  order by email\_domain; |

* 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)



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| *Paste your SQL scripts and the printscreen of the result outputs here*  SELECT email\_domain, country, city, users.user\_id, learn\_sql,learn\_java  from users  join progress  on users.user\_id = progress.user\_id  where progress.learn\_sql ='completed' AND progress.learn\_java = 'completed'  order by email\_domain; |

* 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’.



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| *Paste your SQL scripts and the printscreen of the result outputs here*  SELECT users.user\_id, country, city, learn\_cpp, learn\_sql, learn\_html, learn\_javascript, learn\_java  from users  join progress  on users.user\_id = progress.user\_id  where city like 'F%' or city like '%D'; |