

Hi there,

The Task will be on python and SQL, we want you to build a program that can process and restructure input data from the files and update the results to a remote Postgres database.

Task

Here is the sample input files – [input1](#) and [input2](#).

There are 2 input files containing student test response in a specified column format which need to be manipulated.

Your task is to create a python program that should accept both sample input files with the similar columns as input and convert it to the specified output format as shown in this file [output1](#).

- Test parameters: **Answered, correct, score, skipped, time-taken, wrong**
- Test Names: **Concept Test, Topic Test, Full Chapter Test**

The test parameters repeat for every test, so they are maintained in separate columns on output file. Remove a particular test for a student from the output if test parameters are empty.

Create database as given below and connect the postgres database with your python application and push the output data to the table created in the database after processing the input files.

Postgres Database:

1. You must use only the [render.com](#) to create a basic managed free postgres database for this task using your email address.
2. Connect the database with the GUI tool pgadmin 4.
3. Create the table in postgres database as columns given in **output1**.

NOTE:

- i. Code documentation is mandatory, so kindly add detailed documentation before sharing the code with us.
- ii. Don't hard code. The test data is dynamic so your program must be capable of handling sample input with any number of tests. We have a set of samples datasets for testing, the program should be capable enough to handle those samples.

Mode of Submission:

On successful completion, Attach the following as a reply to this email.

1. GitHub repo link containing the code
2. Database credentials with host address, port, username, password.

Some hints if you are new to python

1. Pandas is a very useful data processing library for these kind of purpose.
2. Do check some useful built-in functions of pandas which may help you - <https://pandas.pydata.org/docs/reference/index.html#api>