Round 1

About
This assignment is a part of evaluation process for candidates who applied for a role at our organization.

Data
You are being provided with the required source data in file 'customers.csv' & 'orders.csv' (attached).

Background
The assignment focuses on development (design is provided, hence not required) of a web application that can dynamically extract, transform, & load data from source to target data layer.

Problem
You need to implement from scratch in development stack (CSS, HTML, JS, MySQL, PHP or Python) as per design description below.

Please refer

1. *Data_Analyzer1.jpg & Data_Analyzer2.jpg (attached)*
2. Demo video *(*http://bit.ly/2i95hoj*)* Enable subtitles on YouTube

Task

Step 0:
Create an instance in MySQL database and load the data customers.csv & orders.csv (structure only) in the MySQL database as shown in the demo video (http://bit.ly/2i95hoj) also refer *Data_Analyzer2.jpg*.

Step 1:
1. Select Format:

i) If you have selected the MySQL Database option then UI should ask username & password and the IP address will be your local host (all these parameters you should have created in step 0). (Refer Data_Analyzer1.jpg: 1. Select Format)

ii) If you have selected the CSV option then a button must be created which will help in browsing the CSV file and it and it should be able to load customers.csv & orders.csv into the MySQL database in this particular functionality. (Refer Data_Analyzer2.jpg CSV part)

Step 2:

2. Select Source:

i) If you have selected MySQL Database then it should display all the databases in the MySQL Database. If you click on the Database Name it should show Tables (in our case only customers.csv & orders.csv) in the respective database. If you click on the table it should show columns in the respective tables where you can select the fields you want to transform as well as the primary key. (Refer Data_Analyzer1.jpg 2.Select Source).

Step 3:

3. Visualizer:

i) Table1 & Table2 (from MySQL) (Refer Data_Analyzer1.jpg: 3. Visualizer) are the two tables that you have generated by selecting the fields from both tables (customers.csv & orders.csv) .

ii) After generating tables Table1 & Table2 you have to apply join transformation (logic can be simple SQL query) in which you will trigger the join query that takes Table1 & Table2 and parameters (common column name & join type) as input which will be passed by the SQL query to be executed on both the tables Table1 & Table2.

iii) After applying the join transformation you have to apply sort transformation (logic can be simple SQL query) on the data that has been generated after applying the join transformation in which you will trigger the sort query that takes output of join query and parameters (column name & sorting type) as input which will be passed by the SQL query to be executed on both the table generated by join transformation.

iv) In the select output file type you have to implement a functionality which can save the result of sort query as CSV & as a table in MySQL.

v) After clicking “Run the Mapping” button both the SQL queries should execute and must be able to show a preview of output in the sliding window (Refer the demo video http://bit.ly/2i95hoj).

Submission

1. Kindly submit screenshots of user interface developed. Paste all of the screenshots in a single word file

2. You are required to demo the application in your local system through screen sharing

Evaluation

You shall be scored on the following:

1. Look & Feel
2. Functionality
3. Performance