

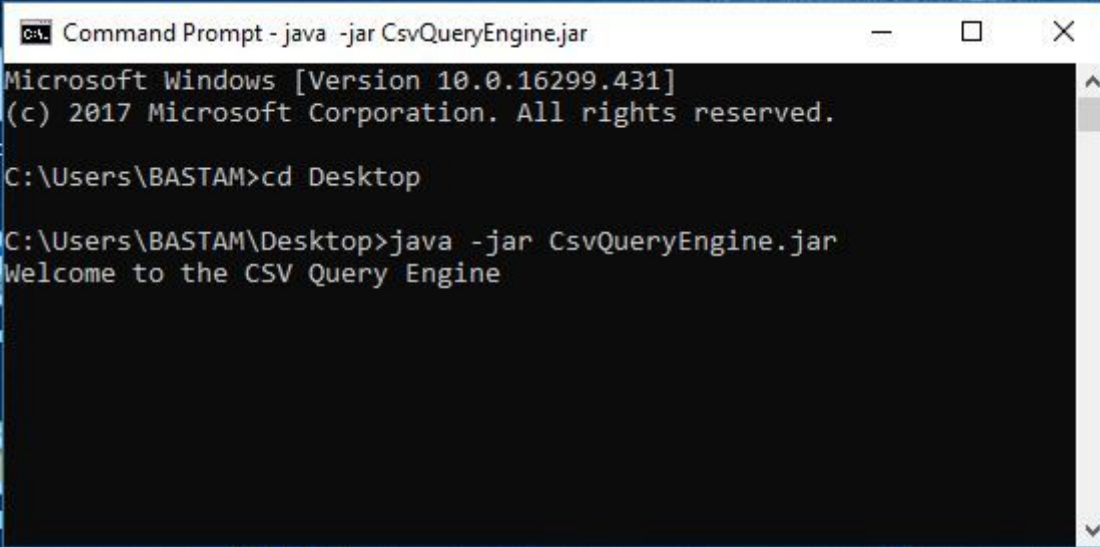
Name : Ahmed Bastam

Email : ahmed-bass@hotmail.fr

Csv Query Engine Task

How to run the program :

Run the jar file from the command prompt :



```
CA: Command Prompt - java -jar CsvQueryEngine.jar
Microsoft Windows [Version 10.0.16299.431]
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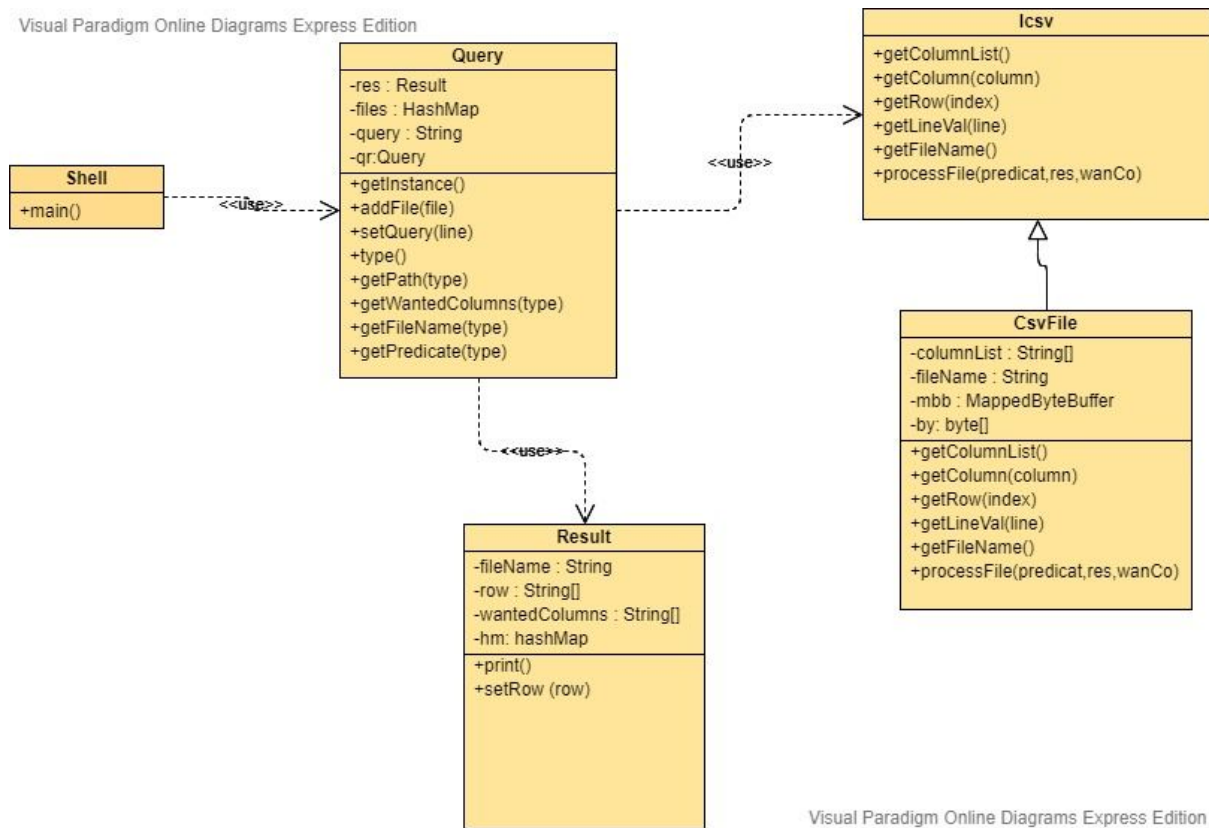
C:\Users\BASTAM>cd Desktop

C:\Users\BASTAM\Desktop>java -jar CsvQueryEngine.jar
Welcome to the CSV Query Engine
```

Accepted Queries :

- IMPORT filePath;
- SELECT column1, column2 FROM fileName.csv WHERE predicate;
- EXIT;

Project Structure :



Csv Query Engine Logic :

1- The user enters a valid query .

2-The main method call the **setQuery** method of the object Query and passing as argument the query entered by the user.

3- The method **setQuery** tests the query to see if it is an IMPORT ,a SELECT or an EXIT.

3-1 - If the query is an IMPORT :

- This method creates another instance of **CsvFile** and add it to the HashMap files.

- The constructor of **CsvFile** will read the file directly from the memory using a MappedByteBuffer.

3-2- If the query is a Select :

- The **setQuery** will create a Result object that will be responsible of printing the results of the current query.

- The setQuery will use the method **getPredicate** to extract the predicate from the query.

-The setQuery will call the method **processFile** of the **CsvFile** object concerned by the query. **processFile** takes as arguments the predicate and result object and a list of wanted columns. and then this method will verify the predicate for every row and then use the **print()** method to output the result.

3-3- If the query is an EXIT then the program will stop .