***Task A***

*According to* ***data you select by yourself****, please apply the following required actions:*

* Descriptive statistics (Data Analysis + Visualization).
* Data Preprocessing.
* *Create an API using flask with the following specifications:*
* *User can choose which algorithm to train the model.*
* *User can send data to be predicted by the selected model using the original shape of the data before preprocessing.*
* *User can get an evaluation report using model evaluations metrices* ***in pretty HTML page not JSON format.***
* *Model serialization.*
* *Build a webpage for the required actions like:*
  + *User can select model name from dropdown list.*
  + *User can select features values from a dropdown list.*

***Notes***

* This assignment will be delivered via your ***GitHub*** profile included dataset and python files ***(Jupyter notebook for data analysis task and python files for flask API)*** and the other format will be decreased by 20% of the task grade.
* After uploading your solution, you should send your GitHub profile link via mail on [***sayed.ali@appspatrols.com***](mailto:sayed.ali@appspatrols.com)***,*** ***make sure this step or you will be scored by Zero***.
* This assignment will be scored and reported to NTI.
* The evaluation will be ***10 degrees.***
* The ***deadline will be Monday 5 Nov. 2018 at 9:00 AM*** any submit after this deadline will be scored with ***Zero***.
* The Arabic text dataset will take 2 points as a bonus.
* The routes for API are:
* ***/train***: for training and take the model name as argument for it
* ***/predict***: for prediction and take the test as an argument/s.