ML Hackathon 2021 Feb 19.

Dear All,

Welcome to TCS Hackathon 2021 Feb 19th.

Please read the below instructions carefully before starting the Hackathon.

1. Total time for Hackathon is 120 minutes.

2. Upload only one zip file which should have both code and output. (Generally, Jupyter

Notebook files ((.ipynb files)) having both).

3. Download attached dataset and save on your local machine.

4. Instructions to upload results:

5. Comments, code, output should be within ipython notebook only. No other

documents required.

6. Upload the file with .ipynb extension (Jupyter Notebook file) (Zip and Upload)

7. Mention any special packages need to be installed.

8. Don't upload multiple files.

9. Make one ZIP file with all your .ipynb files and upload into ion ( from where you

downloaded your question)

10.Zip File naming convention ML\_Feb19\_CT/DT Reference number.

**Any form of Plagiarism is strictly prohibited and if found, we will not consider your files for evaluation.**

**Problem Statement**:

Data were collected on 81 patients undergoing corrective spinal surgery The objective was to determine important risk factors for kyphosis following surgery. The risk factors are age in years, the starting vertebrae level of the surgery and the number of levels involved.

Please follow and perform below steps in detail in ipython notebook.

**QUESTIONS:**

Q-1: Load the dataset and print the metadata in the notebook. 3M

Q-2: Print a heatmap to check NULL values. 2M

Q-3: Print a pairplot of the dataset. 3M

Q-3: Perform splitting of train and test data. 2M

Q-4: Perform feature scaling on independent variables 2M

Q-5: Build a classifier model using AdaBoost Classifier algorithm. 3M

Q-6: Print classification report and plot confusion matrix. 3M

Q-7: Find out the stratified cross validation accuracy 2M.

Attribute Information:

Self-explanatory, please check the csv file.

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