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***Department***

***Riphah School of Computing and Innovation***

***(RSCI)***

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***Section :- BSCS-6B***

***Subject :- Artificial Intelligence***

***Submit To :- Ms.Ayesha Kashif***

***LAB INSTRUCTOR: Mr.Abdul Aleem***

**Lab Assignment (1)**

**Q1**

**Obtain the dataset from [ https://www.hackerearth.com/practice/machine-learning/machine-learningalgorithms/beginners-guide-regression-analysis-plot-interpretations/practice-problems/ ].**

**Answer**

The dataset which I used for the problem is specifically predict the lowest price

**Q2**

**Describe the problem in your own words ?**

**Answer**

In this dataset we are given given Item\_ID, Date, state of country, market category, grade, demand, high\_cap\_price & low\_cap\_price and we have to predict the low\_cap\_price

**Q3**

**Explain how linear regression can help solve this problem.**

**Answer**

Linear regression helps solve this problem by Data Collecting, exploring that data, preparing that data, doing model training on it, doing model evaluation on it & then by doing prediction.

**Q4**

**Which software you used for that problem (Hint: Utilize GPU for faster model training.)**

**Answer**

Google Collaboratory I used because as previous I find it eassy due to easy to use and work as regular base. So I prefer this.

**Q5**

**Are you use the headings and comments to show your code Professional ?**

**Answer**

Yes I added the comments and headings on code lines.

**Q6**

**Follow the ML lifecycle to solve the problem and provide separate code sections for each stage.**

**a. Include detailed screenshots of any errors you encountered while working with the dataset.**

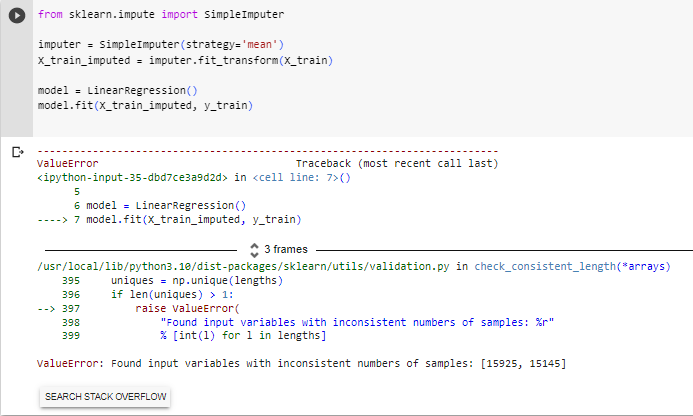
**b. Explain what the error is about.**

**c. Describe how you resolved the error.**

**d. Provide the query you wrote to solve your error.**

**e. Share the solution.**

**Answer**

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**A screenshot of a computer

Description automatically generated with medium confidence**String error due to float

Solution : I chose specific values which are not in float.

**A screenshot of a computer program

Description automatically generated with low confidence**Again error as above. The solution is same

**A screenshot of a computer program

Description automatically generated with low confidence**Same as above error and error not fixed that time due to datatype.

**A screenshot of a computer code

Description automatically generated with medium confidence**Float are not datatype that convert to fixed number of characters

Solution : Choose specific data.

**A screenshot of a computer program

Description automatically generated with medium confidence**

Use big letter instead of small.

**Q7**

**Add more graphs in code to visualize specially train\_test graph ?**

**Answer**

Yes graphs are included to visualize specially train\_test graph.

**Q8**

**Use RMSE as accuracy measure try to minimize this as you can ?**

**Answer**

Yes RMSE accuracy include on it.

**File Link of GitHub :-**

**https://github.com/huss-01/Lab-Assignments**