



UNIVERSITY OF GHANA
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**BACHELOR OF SCIENCE IN ENGINEERING
FIRST SEMESTER: 2023/2024
SCHOOL OF ENGINEERING SCIENCES
SENG 207: PROGRAMMING FOR ENGINEERS (3 Credits)**

COURSE PROJECT

INSTRUCTION:

IN THIS PROJECT, YOU ARE PROVIDED WITH A MODIFIED VERSION OF THE RED WINE DATASET. YOU ARE TO FOLLOW THE STEPS BELOW USING THE OBJECTED-ORIENTED APPROACH TO PERFORM EXPLORATORY DATA ANALYSIS.

SECTION I:

1. Create a folder and name it with your index number
2. Copy the modified red_wine.csv dataset into the folder
3. Start a Jupyter Notebook Server using the Command Prompt Interface

SECTION II:

In the Jupyter Notebook environment, write the code needed to perform the following task:

1. Using markdown, write you provide your **name**, **index number** and **class**
2. Install and import the following Python Libraries:
 - a) Pandas
 - b) Matplotlib
 - c) NumPy
3. Import the modified red_wine.csv dataset into your working notebook environment
4. Preview the first 10 rows using the **head** method
5. Preview the last 20 rows using the **tail** method
6. Use the **info** method to check basic information on the dataset
7. Use the **describe** method to obtain statistical information on the dataset.
8. Deploy all manner of skills and techniques including graphs and plots to obtain meaningful insight from the dataset.
9. Use markdown to report on all plots and graphs obtained.

SECTION III:

1. Create a local Git repository and commit your work onto the repository.
2. Create a remote GitHub repository and commit your work onto the remote repository.
3. Copy link of your remote GitHub repository and include it in the appropriate section in the google form using the link below:

Link: <https://forms.gle/soqdkqNE61gvQbSX7>

Submission Date: 07-Jan-2024