

Data Analysis with Python



Image from Internet

Prerequisites

1. Working laptop or desktop
2. Python software
3. Programming background (should have an experience or are already familiar with the concepts of programming)

Assignments Overview

Task 1

- The task is to collect data (online survey - Google forms). The complete data collection process is explained in 1st or 2nd live session by the allotted captain.
- Mentees can pick any domain or interest for data collection.
- This task needs to be completed in the first week of the workshop.

There is no option for the mentees to submit this task on the app.

Task 2

- The task is to separate or list out the data variables.
- Mentees have to separate independent data variables and dependent data variables from the data.

While submitting this task, mentees have to display the first five rows along with the data variable list. Everything needs to be compiled in the form PDF and submit it.

(This entirely depends on the data that the mentee had collected)

Task 3

- The task is to implement various set operations like Union, Intersection, Difference, Symmetric Difference.

Mentees have to convert the program file or notebook file with proper output as PDF and submit it.

Task 4

- The task is to visualize bar charts.
- Here, mentees have to consider students subject and marks for graphing.

Mentees have to convert the program file or notebook file with proper output as PDF and submit it.

Task 5

- The task is to perform bivariate analysis.
- Here, mentees have to consider the time periods and productivity levels for graphing.

Mentees have to convert the program file or notebook file with proper output as PDF and submit it.

Activity

- This activity is slightly different from the tasks.
- For this activity, mentees have to take their data (collected from task 1) and apply all the methods whatever they have learnt. Of course, they are free to explore other techniques.
- This activity is full on hands-on practice which is like a project or research.

*** All other additional details can be found in the app.**

End