**Experiment No.01**

PART A

(PART A: TO BE REFFERED BY STUDENTS)

**A.1 Aim:** 1. Identify the dataset of your interest, and do the tasks listed in Task1 (Excel/Python)

2. Identify different Data collection techniques and tool

**A.2 Prerequisite:** Software Programming

**A.3 Outcome:**

**After successful completion of this experiment students will be able to**

1. Identify data collection method as per the requirement/research
2. Plan the data collection procedure
3. Collect the data
4. Store the data

**A.4 Theory:**

**Data collection** is a systematic process of gathering observations or measurements. Whether you are performing research for business, governmental or academic purposes, data collection allows you to gain first-hand knowledge and original insights into your [research problem](https://www.scribbr.com/research-process/research-problem/).

While methods and aims may differ between fields, the overall process of data collection remains largely the same. Before you begin collecting data, you need to consider:

* The aim of the research
* The type of data that you will collect
* The application used to collect the data

**A.5 Task to be completed in PART B**

**A.5.1. Task 1:**

**Every student needs to follow following steps and record the findings in appropriate section of PART B**

1. Identify any research topic
2. Identify the requirements of the research
3. Collect the data. (Realtime or already available online)
4. Store the data in Excel file. Perform sort, mean, median, standard deviation for the data collected (Screen shot of the answer required)
5. Identify the type of data (Quantitative or Qualitative)
6. Decide on the suitable visualization technique and implement. (Screen shot of the answer required)

**A.5.2. Task 2:** Identify different Data collection techniques and tool

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**PART B**

(PART B: TO BE COMPLETED BY STUDENTS)

**(Students must submit the soft copy as per following segments within two hours of the practical. The soft copy must be uploaded on the Blackboard or emailed to the concerned lab in charge faculties at the end of the practical in case the there is no Black board access available)**

|  |  |
| --- | --- |
| Roll No. | Name: |
| Program : | Division: |
| Batch: | Date of Experiment: |
| Date of Submission: | Grade : |

**B.1 Tasks given in PART A to be completed here**

*(****Students must write the answers of the task(s) given in the PART A )***

**Task 1:**

**Task 2:**

**B.2 Observations and Learning:**

*(****Students must write the observations and learning based on their understanding built about the subject matter and inferences drawn)***

**B.3 Conclusion:**

*(****Students must write the conclusive statements as per the attainment of individual outcomes listed above and learning/observation noted in section B.2)***

**B.4 Question of curiosity:**

1. Why data extraction is important?
2. What is qualitative and quantitative data? Explain in terms of data collected in this experiment.
3. What is missing value, redundancy? From the data collected identify redundant data in excel file.

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