Hands-on Exercise No. 1 **DigiSkills 2.0 Batch-08** **Data Analytics & Business Intelligence**	**Total Marks: 10** **Due Date: 01/08/2024**

Instructions:

Please read the following instructions carefully before submitting this Hands-on Exercise:

- Use MS Word to prepare exercise solution.

- You may consult tutorials and videos if the concept is not clear.

- Your submitted exercise will not be considered/counted if:

  - It is submitted after due date.
  - It is not in the required format (.doc or .docx)
  - It does not open, or file is corrupt.
  - It is copied (partial or full) from any source (websites, forums, students, etc.)

Learning Outcome:

After completing this exercise, you shall be able to:

- Enter and format data accurately in Google Sheets.
- Use basic and advanced functions such as AVERAGEIF to perform calculations and analyze data.
- Interpret and analyze the sorted and filtered data to gain insights into employee salary distributions across departments.
- Use average salary calculations to compare and understand departmental salary structures.
- Create and customize a pie chart to visually represent data.

Problem Statement

Google Sheets is a powerful tool for managing and analyzing data. In this exercise, you will gain hands-on experience with basic and advanced features of Google Sheets to handle data efficiently and effectively.

Task 1: Data Manipulation and Analysis (5 Marks)

In this task, you will work with a sample dataset to perform various data manipulation and analysis operations.

1. Open Google Sheets and create a new spreadsheet.
2. Enter the following data into the spreadsheet starting from cell A1:

Name	Age	Department	Salary
Alice	28	HR	5000
Bob	34	IT	6000
Charlie	25	Marketing	4500
Diana	30	HR	5200
Evan	40	IT	7000
Fiona	29	Marketing	4800
George	45	HR	6800
Hannah	31	IT	6400

3. Sort the data by the 'Department' column in ascending order.
4. Apply a filter to show only employees with a salary greater than 5000.
5. Calculate the average salary of the employees in each department using the AVERAGEIF function.

Task 2: Data Visualization (5 Marks)

In this task, you will create a visual representation of the data to better understand and present the information.

1. Create a new sheet within the same Google Sheets document.
2. Copy the data from the original sheet to the new sheet.
3. Insert a pie chart that shows the distribution of employees across different departments.

Requirements:

- Provide a screenshot of Google Sheets, showing the sorted data, filtered data, and the average salary calculation.
- Provide a screenshot of the sorted and filtered data along with the average salary calculation.
- Provide screenshots of pie chart.
- Submit the completed tasks in word document.

Guidelines:

- Use Google Sheets to complete the tasks.
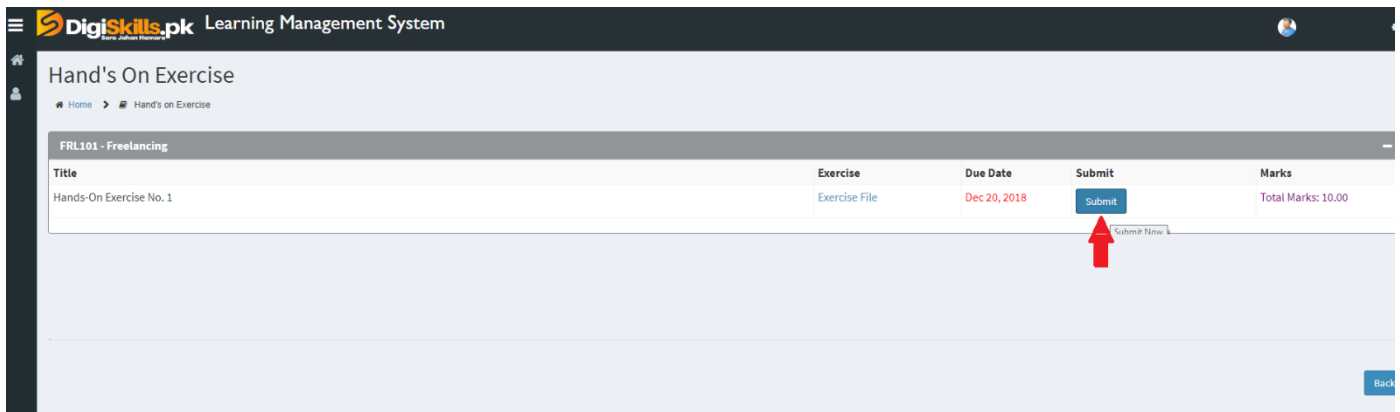- Submit a Word document containing the screenshots for each task.

BEST OF LUCK ☺

How to submit solution file on LMS?

Please perform the following steps for submitting your solution using LMS:

1) Login to the LMS

2) Click on the **Exercises** button within the **My Activities** section
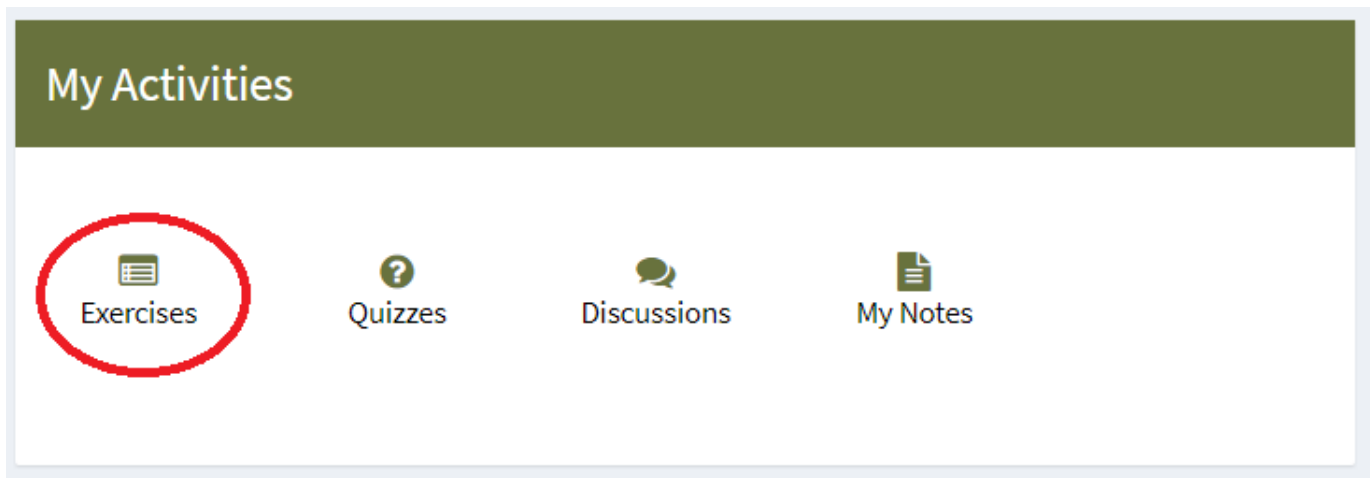
3) Click on the submit button to upload your Solution.

4) Keep in mind to upload your Solution in .doc or .docx format