Ministry of Information Technology & Telecom
Government of Pakistan

DigiSkills.pk
Sara Jahan Hamara

Ignite
NATIONAL TECHNOLOGY FUND

Executed by
VU
Virtual University

Hands-on Exercise No. 4 **DigiSkills 2.0 Batch-07** **Data Analytics and Business Intelligence**	**Total Marks: 10** **Due Date: 13/06/2024**

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:

- Download and install free R language.
- Install ggplot2 library in R
- Create histogram, boxplot, and bar chart for dataset column.

Problem Statement:

Tasks:

1) Download and Install free R language from the following link.
   https://cran.r-project.org/bin/windows/base/

2) Install and import ggplot2 library in R GUI using the following commands.
   install.packages('ggplot2') library(ggplot2)

3) Create histogram for mpg column in mtcars dataset using the following command.
   ggplot(mtcars,aes(x=mpg)) + geom_histogram()

4) Create bar chart for gear column in mtcars dataset using the following command.
   ggplot(mtcars, aes(x = gear)) +geom_bar()

5) Create box plot for mpg column in mtcars dataset using the following command.
   ggplot(mtcars, aes(x=as.factor(cyl), y=mpg)) + geom_boxplot()

Requirements:

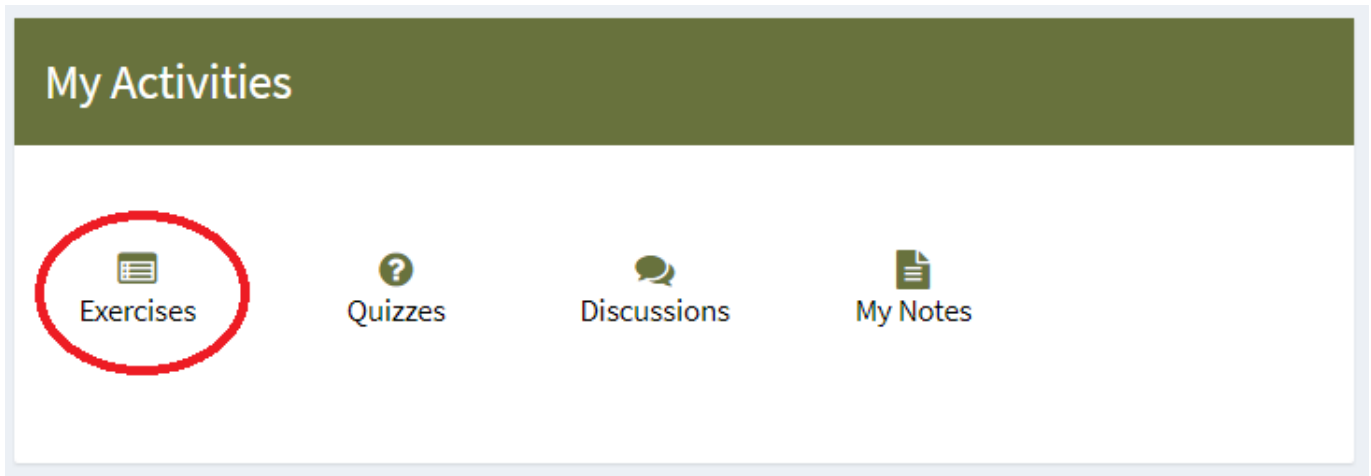In this exercise you are required to perform all the given tasks and provide
- Screenshots of Task 1, 2, 3, 4 and 5.
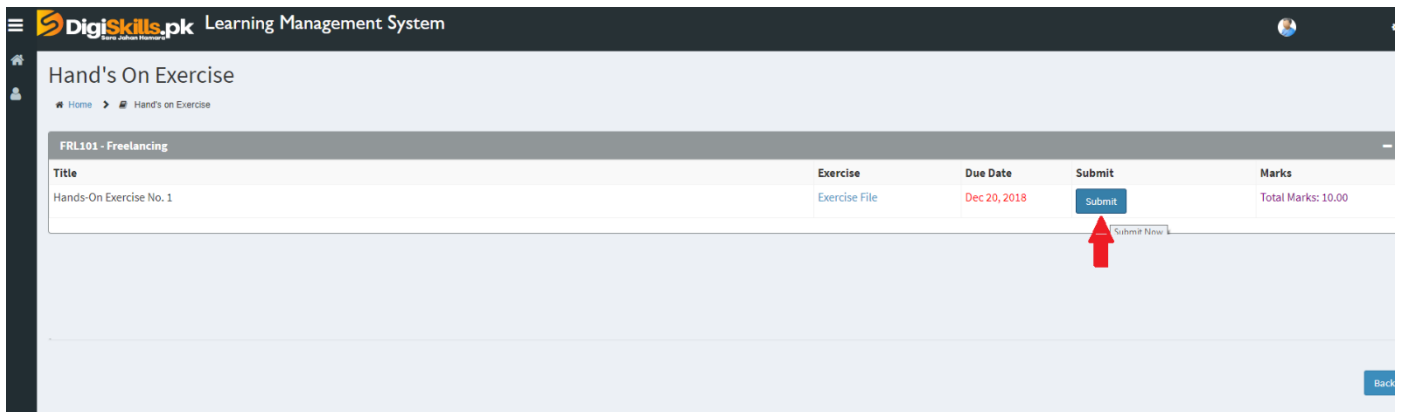- Submit the completed tasks in word document.

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