**Project\_3-4\_Instructions**

**Description**

Project 3&4

TASK: EDA&MACHINE LEARNING

Project Description : Problem Statement :

You are Given the limited data from a reputed retail website that include relevant information of the consumer behavior through website engagement for multiple product purchase .

As a Data Scientist perform detailed EDA on the data and prepare a prediction model which predicts whether a consumer will purchase the product after their visit on the website. Try to bring relevant inference from the model by visualizing the performance through various model metrices. State your finding with appropriate statements.

Dataset Description The first six columns represent the different pages in the e-commerce website visited by a user from other sites.

1. HomePage: Number of times visited this page
2. HomePage\_Duration: Total number of duration spent on this page.
3. LandingPage: Number of times visited this page
4. LandingPage\_Duration: Total number of duration spent on this page.
5. ProductDesriptionPage Number of times visited this page
6. ProductDescriptionPage\_Duration: Total number of duration spent on this page.
7. GoogleMetric-Bounce Rate: Whenever a user comes to any one web-page of the website and he/she does not go to any other page and exits from the website from the same page, then this activity done by the user is called Bounce. And the percentage of the total number of times the user visiting our website and bounce it, is called Bounce Rate
8. GoogleMetric-Exit Rate: The bounce rate is calculated based on the user exiting a website after visiting one page. But some users exit from the second, third, fourth, or any other page of our website, then those visitors’ data help determine the exit rate. The percentage of the total number of times the user to our website who do not exit from the first page (Landing Page) but exit after exploring other website pages is called the Exit Rate.
9. GoogleMetric-Page Value: Page Value is the average value for a page that a user visited before landing on the goal page or completing an Ecommerce transaction.
10. SeasonalPurchase: It is a weight indicator to track the seasonal purchase. If a user makes a purchase during any seasonal time (Mother’s Day, Diwali, Valentine's Day), we will assign based on internal heuristic.
11. Month\_ SeasonalPurchase: Month of the special day considered for seasonal purchase.
12. OS:Windows ,MacOs ,ChromeOs,Android
13. Search engine: Google,Bing,yahoo,Ask.com,DuckDuckgo
14. Zone:Middle East, South Asia, North Asia, South Africa, Australia, Canada, North America, South America, Europe
15. Visitor: New\_visitor/Returning\_visitor
16. Gender:Male/Female/Not\_specified
17. Cookies:Deny,all,specified
18. Education:Diploma,graduate,others,Not specified
19. Marriatal status: Single/married/others
20. Weekend\_purchase: yes/no
21. Made\_purchase:True/False

**Instructions**

**Notebook**

**Powerpoint**

Your responsibilities may include :

* Analyze the Give data pertaining to the problem statement ,
* Provide a Detail EDA analysis for the data.
* Provide predictive machine learning models for the given dataset.
* Include charts and diagrams to show the performance of the model.
* Make a study on customers' online behavior for product purchase.
* Build a strong professional profile, present given tasks and submissions.

Improve skills through various activities as part of the internship. Mandatory to post the project video on LinkedIn and receive at least 5 comments on the LinkedIn post.