**Project Synopsis**

1. **Title of the Project :**

Customer Behaviour Prediction on e-commerce website.

1. **Area of the Project :**

Data Analytics and Data Mining

1. **Project team member details :**
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1. **Motivation Of The Project :**

* It is generally too late to take retention actions after a consumer churns out.
* Identifying unhappy customers early on gives you a chance to offer them incentives to stay.
* If a business can predict when a customer is at high risk of churning when there is still time for the company to do something about it, would be a huge additional potential revenue source for every online business
* E-commerce sites will analyze the reports generated by this system in order to provide better performance and also suggest better products and services next time.

1. **Scope of the Project :**

* This project involves first recording behaviour and flow of customer's actions on a website to generate behavioural patterns.
* System will generate reports regarding various ratios.
* This project will use Data Analytics for the automated identification of unhappy customers, also known as **Customer churn Prediction.**
* Classifying customers into groups of loyal and about to churn customers.

1. **Tools planning to use :**

* HTML & CSS ,PHP - Front End
* MySQL - for Customer database
* Anaconda (Spyder) - Back End

1. **Module wise description :**

* Customer Level

1. View Product

* Product Category
* Product Stock
* Product Price
* Product details

1. Give Order

* Registration (Log In/Sign Up)
* Product Selection (Add to Cart)
* Admin Level

1. Session Parameter Calculation

* Percentage of Cart change
* Transaction Details
* Session Time
* Session Date

1. Classification

* Customer Lifetime Value(CLV)
* Average Transaction Amount
* Repeat Purchase Rate
* Customer Life Span
* Average number of Products viewed

1. Churn Probability Calculation

* Average Session Time
* Last Transaction Amount
* Cart abandoned rate
* Hit rate
* Customer Lifetime Value(CLV)
* Average Cart Change Percentage

1. **Software and Hardware Requirements :**

* Software Requirements
* HTML & CSS
* MySQL (customer database)
* Anaconda : Spyder (data analytics platform)
* Python library
* **scikit -learn** – To build model for prediction
* matplotlib –For Data Visualization purpose
* Pandas- For Data analytics Operations
* Hardware Requirements
* Intel(R) core i7 processor
* 4GB RAM
* Windows 8.0 or higher
* A network support

1. **Limitations/Assumptions :**

* Data set is not fixed.
* Continuous Internet connection is required.

1. **Future Enhancement**

* Using Neuro-fuzzy model to calculate churn probability more accurately.
* Tracking cursor movements.
* Recommending products and services to customers according to Churn probability.
* Recommending products and services to customers by analysing their web history.

1. **Study Curve :**

* Various prediction algorithms
* Technologies like Firebase , Spyder
* Manage Live data

Mr.Mahendra Deore Mrs. Nilofer Attar

Project Coordinator Project Guide