Project Design Phase-I
Proposed Solution Template

Date	23-10-2023
Team ID	Team-592521
Project Name	Project – Online Shoppers Intention Prediction
Maximum Marks	2 Marks

Proposed Solution Template:

Project team shall fill the following information in proposed solution template.

S.No.	Parameter	Description
1.	Problem Statement (Problem to be solved)	The project aims to predict whether customers will purchase a product or just browse through it on an online shopping website. To achieve this, we will use classification algorithms such as Logistic Regression, Random Forest, and K-Means Clustering. We will train and test the data using these algorithms, and then select the best model to save in pkl format.
2.	Idea / Solution description	We want to create a Web app where in people are required to enter certain conditions or we get a new data from e-commerce websites and it gives prediction whether those conditions contribute to revenue or not.
3.	Novelty / Uniqueness	The novelty of Online Shoppers Intention prediction with ML lies in its ability to provide accurate estimation of people's mood and mindset, which helps in identifying whether they will buy or not. The app can offer personalized website suggestions to customers based on their interests and purchase history, as well as the prediction of whether they will buy the product or not. This can incentivize customers to buy more products, especially if they are predicted to be less likely to buy. The app can incorporate gamification elements to make it more engaging and fun for customers to use. This can motivate customers to interact with the app more frequently and to make more purchases.
4.	Social Impact / Customer Satisfaction	We are bound for improvement hence we would provide customers to fill the necessary forms to help us improve the working, UI/UX and all other components of the Web App. Use a distributed file system to store the training data and ML model: This can improve the performance of the ML model and make it easier to scale to larger datasets. Monitor the performance of the web app and make adjustments as needed: It is important to monitor the performance of the web app and make adjustments to the infrastructure or ML model as needed to ensure that the web app can scale to meet demand.
5.	Business Model (Revenue Model)	This can not only be restricted to Web App, it can be developed as an Android/IOS App, Chatbot, pop-ups which can be integrable to all E-Commerce Websites.
6.	Scalability of the Solution	The scalability of an ML web app depends on a number of factors, including the following: The size and complexity of the ML model: Larger and

		more complex ML models will require more resources to scale. The amount of traffic to the web app: Web apps with more traffic will require more resources to scale. The type of infrastructure used to host the web app: Cloud-based infrastructure is typically more scalable than on-premises infrastructure. Use a scalable ML framework: Some ML frameworks, such as TensorFlow Serving and PyTorch Serve, are specifically designed for scalability. Deploy the ML model to a cloud-based platform: Cloud-based platforms such as Google Cloud Platform and Amazon Web Services offer a variety of scalable resources, such as load balancing and auto-scaling.Use caching to store the results of frequently used predictions: This can reduce the load on the ML model and improve the performance of the web app.