Project Design Phase-I
Proposed Solution Template

Date	02 November 2023
Team ID	Team-592124
Project Name	Project - Online Shoppers Intentions using ML
Maximum Marks	2 Marks

Proposed Solution :

S.No.	Parameter	Description
1.	Problem Statement (Problem to be solved)	In e-commerce, the actual challenge is to identify whether the user is an “actual buyer” or just a “casual browser”. Using advanced machine learning techniques we classify the users to help businesses to elevate personalisation and user satisfaction and optimize marketing strategies.
2.	Idea / Solution description	Our solution centers on implementing classification algorithms, including Logistic Regression, Random Forest, and K-Means Clustering, to predict whether an online shopper is likely to make a purchase or engage in window shopping. We will train and test these algorithms using relevant data, selecting the most accurate model. The chosen model will be saved in a pkl format for

		deployment and real-time use.
3.	Novelty / Uniqueness	The novelty of our solution lies in its real-time, data-driven approach to classifying online shopper intentions, offering personalized experiences, and utilizing a combination of classification algorithms to achieve the best accuracy. The integration of K-Means Clustering alongside traditional algorithms is unique in this context, improving the reliability of intent classification.
4.	Social Impact / Customer Satisfaction	By accurately predicting online shoppers intentions, our solution enhances the online shopping experience. 'Buyers' benefit from more streamlined and relevant shopping experiences, while 'browsers' receive product recommendations aligned with their interests. This contributes to increased customer satisfaction, better decision-making, and more efficient use of time.
5.	Business Model (Revenue Model)	The primary revenue model revolves around offering this classification solution as a service to e-commerce businesses. Revenue can be generated through subscription plans or pay-per-use models, depending on the scale and requirements of the businesses.
6.	Scalability of the Solution	Our solution is highly scalable, capable of handling increased data volumes and user traffic. It can be easily adapted to various e-commerce platforms and is designed to efficiently accommodate growing business needs without compromising on accuracy and performance.