Project Design Phase-I Proposed Solution Template

Date	15 October 2022
Team ID	PNT2022TMID39652
Project Name	Project – Web Phishing Detection
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)	 Web phishing aims to steal private information, such as usernames, passwords, and credit card details, by way of impersonating a legitimate entity. It will lead to information disclosure and property damage.
2.	Idea / Solution description	 A deep learning-based framework by implementing it as a browser plug-in capable of determining whether there is a phishing risk in real-time when the user visits a web page and gives a warning message. The real-time prediction includes whitelist filtering, blacklist interception, and machine learning (ML) prediction.
3.	Novelty / Uniqueness	 To deal with phishing attacks and distinguishing the phishing webpages automatically, Blacklist based detection technique keeps a list of websites' URLs that are categorized as phishing sites. If a web-page requested by a user exists in the formed list, the connection to the queried website is blocked. Machine Learning (ML) based approaches rely on classification algorithms such as Support Vector Machines (SVM) and Decision Trees (DT) to train a model that can later automatically classify the fraudulent websites at run-time without any human intervention.
4.	Social Impact / Customer Satisfaction	 Large organizations may get trapped in different kinds of scams. There are a number of users who purchase products online and make payments through e-banking. There are e-banking phishing websites that ask

		users to provide sensitive data such as username, password & credit card details, etc., often for malicious reasons.
5.	Business Model (Revenue Model)	 The browser plugin can be provided with a subscription plan or could be sold as a licensed software.
6.	Scalability of the Solution	To create microservices with flask web framework so that the model could scaled vertically or horizontally and effective traffic management.