

Project Design Phase-I Proposed Solution Template

Date	12 October 2022
Team ID	PNT2022TMID29453
Project Name	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)	<ul style="list-style-type: none"> Web phishing aims to steal private information such as user name, password by the way of impersonating a legitimate entity. It will lead to information disclosure and property damage.
2.	Idea / Solution description	<ul style="list-style-type: none"> 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	<ul style="list-style-type: none"> To deal with phishing attacks and distinguishing the phishing webpages automatically, Blacklist based detection technique keeps a list of website's URLs that categorized as phishing sites. If a webpage 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 Decision tree, Logistic regression and Support Vector Machine to train a model that can later automatically at run-time without any human interventions.
4.	Social Impact / Customer Satisfaction	<ul style="list-style-type: none"> There are number of users who purchase products online and make payments through e-banking. There are e-banking websites that ask users to provide sensitive data as username, credit card details, password, etc., often for malicious reasons. Large organization may get trapped on different kinds of scams.

5.	Business Model (Revenue Model)	<ul style="list-style-type: none"> ● The browser plug-in can be provided with a subscription plan or could be sold as a licensed software.
6.	Scalability of the Solution	<ul style="list-style-type: none"> ● To create microservices with flask web framework so that the model could scaled vertically or horizontally and effective traffic management.