Project Design Phase-I
Proposed Solution Template

Date	30 October 2023
Team ID	Team 2.11
Project Name	MALWARE DETECTION AND CLASSIFICATION
Maximum Marks	2 MARKS

Proposed Solution -:

S.No	. Parameter	Description
1.	Problem Statement (Problem to be solved)	The problem of malware detection and classification is a challenging one, as malware authors are constantly developing new and more sophisticated techniques to evade detection. Traditional signature-based detection methods are no longer effective in detecting all new malware variants.
2.	Idea / Solution description	We propose to use a machine learning algorithm to detect and classify malware. The algorithm will be trained on a large database of malware files, and it will be able to identify and classify malware based on their features. The features that we will use include the file's size, its hash value, the instructions that it contains, and the behavior that it exhibits when executed.
3.	Novelty / Uniqueness	Our proposed solution is novel in that it uses a machine learning algorithm to detect and classify malware. This approach is more effective than traditional signature-based detection methods, as it is able to detect new malware variants even if they have not been seen before.
4.	Social Impact / Customer Satisfaction	Our proposed solution will have a positive social impact by helping to protect users from malware infections. Malware infections can cause a variety of problems, including data theft, financial loss, and identity theft. By detecting and classifying malware, we can help to prevent these problems from occurring.
5.	Business Model (Revenue Model)	We plan to monetize our solution by offering it as a subscription service to businesses and organizations. Businesses and organizations can use our solution to protect their networks and users from malware infections.

6.	Scalability of the Solution	Our proposed solution is scalable. We can easily add new malware samples to the training dataset as they become available. This will allow the algorithm to continue to detect new malware variants even as they are developed.

Conclusion -:

We believe that our proposed solution is a novel and effective approach to malware detection and classification. Our solution has the potential to have a positive social impact by helping to protect users from malware infections. We also believe that our solution is scalable and can be easily commercialized.