

# Abstract:

The purpose of this research study is to investigate the area of cybersecurity threats and related solutions in the age of the internet. Through identifying and examining diverse vulnerabilities, we seek to create an overall picture of the prevalent cybersecurity issues and recommend efficient countermeasures. Vulnerability scanning, threat modeling, and application of security actions focused on safeguarding digital assets will be a part of the research.

# Scope of the Project:

The project will entail the identification and examination of cybersecurity vulnerabilities within a target location. It will entail the utilization of tools such as Nessus to scan for vulnerabilities, classify vulnerabilities in order of severity, and give in-depth reports on each vulnerability. The project will also entail an introduction to Nessus, a vulnerability priority chart, and an empathy map to comprehend user views in terms of cybersecurity.

# Objectives of the Project:

1. Identify and categorize cybersecurity vulnerabilities existing in a given website.
2. Conduct vulnerability scans with Nessus and generate detailed reports.
3. Evaluate publicly disclosed vulnerability business impact.
4. Suggest possible mitigation measures against each vulnerability.
5. Develop a prioritization chart and empathy map to know and respond to user concerns.

The Thought Behind the Project: