

# Module 8

## Assignment :Malware analytics and mitigation

**Project Title:** Malware Creation and Analysis Project

Project Overview:

The project aims to provide hands-on experience to cyber security students in both creating and analyzing malware. Students will explore various types of malware, learn how they are created, understand their behaviors, and analyze them using different techniques and tools.

### Project Tasks:

#### 1. Malware Creation:

- Students will create simple malware using batch files, following the examples demonstrated in the provided content.
- They will experiment with different types of batch viruses, such as shutdown viruses and fork bomb viruses, to understand their functionalities and impacts.
- Students will explore virus generators like JPS Virus Maker and understand how these tools facilitate the creation of malware without programming knowledge.
- The project will emphasize ethical use, and students will be required to create malware solely for educational purposes.
- Additionally, students will learn how to use online services like VirusTotal for scanning suspicious files to determine if they contain malware.

## **2. Malware Detection and Removal:**

- Students will explore popular malware detection and removal tools listed in the provided content, such as Malwarebytes, Avast Antivirus, Bitdefender Antivirus Plus, etc.
- They will understand the importance of keeping antivirus software up to date to effectively detect and remove malware.
- Through practical exercises, students will simulate malware detection scenarios and learn how to use detection and removal tools effectively.

### **Project Deliverables:**

- Documentation: Students will document their malware creation process, including the code/scripts used and the purpose/functionality of each malware.
- Presentation: Students will deliver presentations summarizing their project experience, covering malware creation, analysis techniques, and insights into malware detection and removal.

### **Project Benefits:**

- Hands-on experience in both creating and malware removal, providing practical insights into cyber threats and defenses.
- Preparation for real-world cybersecurity challenges and ethical hacking scenarios.

**Note:** Throughout the project, ethical considerations and responsible use of knowledge will be emphasized to ensure students understand the potential consequences of malicious activities.