SecureHack
Making Internet Safe

Summer Traning
Introduction:

Starting from the basics, this cybersecurity course provides a solid foundation for students from any stream at any level entering the field. No prior knowledge or experience is required, making it accessible to beginners who are eager to learn. The course begins by emphasizing the significance of cybersecurity in today's interconnected world. The course has been designed with a practical approach so that students will gain a clear understanding of the threats and attack vectors that jeopardize our digital systems and personal information. These topics cover the foundational aspects of cybersecurity and provide a solid understanding of key concepts, technologies, and practices.

Course outcome: The course outcomes of these topics aim to equip students with the knowledge and skills necessary to understand, mitigate, and respond to cybersecurity threats effectively. Upon completion of the training program, students should be able to implement security measures, assess risks, protect data, and contribute to a secure computing environment.

Mode: Online/Offline

Duration: 45 Days

System Requirements:

Operating System:
Windows 10, macOS, or Linux (based on the training program and tools being used)
Processor:
Intel Core i5 or equivalent (or higher)
RAM:
Minimum of 8 GB RAM (16 GB or higher recommended for better performance)
Storage:
At least 256 GB of available storage space
Network Connectivity:
Ethernet or Wi-Fi capability for internet access and networking tasks

Virtualization:
If virtualization software like VMware or VirtualBox is used, the system should support hardware virtualization technology (e.g., Intel VT-x or AMD-V)

Tools :

1. **Virtualization Software:**
   VMware Workstation
   VirtualBox
2. **Network Security Tools:**
   Wireshark
   Nmap
   tcpdump

Course Content:

1. **Introduction to Cybersecurity**
   Overview of cybersecurity concepts, principles, and challenges.
   Introduction to different types of cyber threats and attacks.
2. **Basic of Linux**
   Installation of Linux
   Basic commands
   Introduction of Linux and tools
3. **Basic networks**
   Important protocols and their header in depth
   TCP
   UDP
   IP
   ICMP
   Ports and their basic
4. **Network Security**
   Fundamentals of network security.
   Network architecture and design considerations.
   Network security protocols and encryption techniques.
5. **Privilege escalation attack**
   Horizontal attack
   Vertical attack