

Assignment - 1

Types of Cyber Attacks :

* Denial of Service (DoS) Attack :

Attackers send high volume of data or traffic through the network until the network becomes overloaded and can no longer function.

* Man in the middle attack :

Information is obtained from the end user and the entity the user is communicating with by impersonating the endpoints in information exchange.

* Malware Attack :

Software programs designed to damage or do unwanted actions on computer.

* Password attacks :

Third party trying to gain

access to the computer by solving the user's password.

Phishing:

Attacks sent via email and ask users to click on a link & enter their personal data. That link directs the user to a dummy site where user's ~~data~~ information is stolen.

Drive-by Downloads:

Program is downloaded to a user's system by just visiting the site. It doesn't even require any action from the user side.

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Main Types of Manual Testing :-

* White-box testing:-

It tests the internal structures or working of an application. The software itself designs the testcases. The tester chooses inputs to exercise paths through the code and determines the expected output.

* Black box testing:

This testing examines the functionality of an application.

The tester provides input and monitors the output. This testing checks how the application responds to different inputs and response time and usability issues.

Unit Testing :-

It includes testing of each

unit of software separately. This is to check any error and accuracy of the software. It's the first software test level.

Integration testing:-

It is the second level of testing. Since the application units tested individually, now the application is tested after integrating all the modules. It ensures whether communication b/w all modules is correct.

Acceptance Testing:-

It is based on user requirements and handling of functions. It determines whether the application complies with specific customer demands.

System Testing :-

If involves testing the software system completely integrated. It checks the complete functioning of the application. It checks all the software and hardware associated with it.

Assignment

Assignment 3:

Microservices:-

It consists of a collection of small, autonomous service. Each service is a separate codebase and deployed independently. Services communicate with each other by using API.

Monolithic:-

If all the functionalities of a project exist in a single codebase, then its monolithic.

Its a single tiered software application in which different components combined into a single program from a single platform.

REST and SOAP :-

REST is an architectural style. It REST web services inherits security measures from the underlying transport. It requires less bandwidth and resource than SOAP. REST permits different data format such as HTML, XML.

SOAP:-

It's a protocol. It permits XML data format only. SOAP requires more bandwidth and resource than REST. SOAP defines its own security.