# COURSEWARE

Git  Databases Introduction  Java Beginner  Maven  Testing (Foundation)  Java Intermediate  HTML  CSS  Javascript  Spring Boot  Selenium  Sonarqube  Advanced Testing (Theory)  Cucumber  MongoDB  Express  NodeJS  React  Express-Testing  Networking  Security  Security Basics  Authentication and Authorization  Security Attacks			
Git  Databases Introduction  Java Beginner  Maven  Testing (Foundation)  Java Intermediate  HTML  CSS  Javascript  Spring Boot  Selenium  Sonarqube  Advanced Testing (Theory)  Cucumber  MongoDB  Express  NodeJS  React  Express-Testing  Networking  Security  O Security Basics  O Authentication and Authorization  O Security Attacks	Pro	fessional Skills	
Git  Databases Introduction  Java Beginner  Maven  Testing (Foundation)  Java Intermediate  HTML  CSS  Javascript  Spring Boot  Selenium  Sonarqube  Advanced Testing (Theory)  Cucumber  MongoDB  Express  NodeJS  React  Express-Testing  Networking  Security  Security Basics  Authentication and Authorization  Security Attacks	Agile Fundamentals		
Databases Introduction  Java Beginner  Maven  Testing (Foundation)  Java Intermediate  HTML  CSS  Javascript  Spring Boot  Selenium  Sonarqube  Advanced Testing (Theory)  Cucumber  MongoDB  Express  NodeJS  React  Express-Testing  Networking  Security  O Security Basics  O Authentication and Authorization  O Security Attacks	Jira		
Java Beginner  Maven  Testing (Foundation)  Java Intermediate  HTML  CSS  Javascript  Spring Boot  Selenium  Sonarqube  Advanced Testing (Theory)  Cucumber  MongoDB  Express  NodeJS  React  Express-Testing  Networking  Security  O Security Basics  O Authentication and Authorization  O Security Attacks	Git		
Maven Testing (Foundation) Java Intermediate HTML CSS Javascript Spring Boot Selenium Sonarqube Advanced Testing (Theory) Cucumber MongoDB Express NodeJS React Express-Testing Networking Security O Security Basics O Authentication and Authorization O Security Attacks	Databases Introduction		
Testing (Foundation)  Java Intermediate  HTML  CSS  Javascript  Spring Boot  Selenium  Sonarqube  Advanced Testing (Theory)  Cucumber  MongoDB  Express  NodeJS  React  Express-Testing  Networking  Security  O Security Basics  O Authentication and Authorization  O Security Attacks	Java Beginner		
Java Intermediate  HTML  CSS  Javascript  Spring Boot  Selenium  Sonarqube  Advanced Testing (Theory)  Cucumber  MongoDB  Express  NodeJS  React  Express-Testing  Networking  Security  O Security Basics  O Authentication and Authorization  O Security Attacks	Maven		
HTML  CSS  Javascript  Spring Boot  Selenium  Sonarqube  Advanced Testing (Theory)  Cucumber  MongoDB  Express  NodeJS  React  Express-Testing  Networking  Security  O Security Basics  O Authentication and Authorization  O Security Attacks	Testing (Foundation)		
CSS Javascript Spring Boot Selenium Sonarqube Advanced Testing (Theory) Cucumber MongoDB Express NodeJS React Express-Testing Networking Security O Security Basics O Authentication and Authorization O Security Attacks	Java Intermediate		
Javascript  Spring Boot  Selenium  Sonarqube  Advanced Testing (Theory)  Cucumber  MongoDB  Express  NodeJS  React  Express-Testing  Networking  Security  O Security Basics  O Authentication and Authorization  O Security Attacks	HTML		
Spring Boot  Selenium  Sonarqube  Advanced Testing (Theory)  Cucumber  MongoDB  Express  NodeJS  React  Express-Testing  Networking  Security  O Security Basics  O Authentication and Authorization  O Security Attacks	CSS		
Selenium  Sonarqube  Advanced Testing (Theory)  Cucumber  MongoDB  Express  NodeJS  React  Express-Testing  Networking  Security  O Security Basics O Authentication and Authorization O Security Attacks	Javascript		
Sonarqube  Advanced Testing (Theory)  Cucumber  MongoDB  Express  NodeJS  React  Express-Testing  Networking  Security  O Security Basics  O Authentication and Authorization  O Security Attacks	Spring Boot		
Advanced Testing (Theory)  Cucumber  MongoDB  Express  NodeJS  React  Express-Testing  Networking  Security  O Security Basics O Authentication and Authorization O Security Attacks	Selenium		
Cucumber  MongoDB  Express  NodeJS  React  Express-Testing  Networking  Security  O Security Basics O Authentication and Authorization O Security Attacks	Sonarqube		
MongoDB  Express  NodeJS  React  Express-Testing  Networking  Security  O Security Basics  O Authentication and Authorization  O Security Attacks	Advanced Testing (Theory)		
Express  NodeJS  React  Express-Testing  Networking  Security  O Security Basics  O Authentication and Authorization  O Security Attacks	Cucumber		
NodeJS  React  Express-Testing  Networking  Security  Security  Authentication and Authorization  Security Attacks	MongoDB		
React  Express-Testing  Networking  Security  O Security Basics  O Authentication and Authorization  O Security Attacks	Express		
Express-Testing  Networking  Security  Security Basics  Authentication and Authorization  Security Attacks	NodeJS		
Networking  Security  Security Basics  Authentication and Authorization  Security Attacks	React		
Security  Security Basics  Authentication and Authorization  Security Attacks	Express-Testing		
<ul><li>Security Basics</li><li>Authentication and Authorization</li><li>Security Attacks</li></ul>	Networking		
<ul><li>Authentication and Authorization</li><li>Security Attacks</li></ul>	Security		
O Security Attacks	0	Security Basics	
	0	Authentication and Authorization	
<ul><li>Passwords</li></ul>	0	Security Attacks	
	0	Passwords	

Hashing vs Encrypting vs Encoding

Introduction to DevSecOps

Pen Testing, DAST & SAST

### **Passwords**

#### Contents

- Overview
- Weak Passwords
- <u>Strong Passwords</u>
- Storing Passwords
- <u>Tutorial</u>
- Exercises

#### Overview

What makes a good password? What should we do when storing passwords? These questions will be answered in this module.

### Weak Passwords

The strength of a password is left to interpretation for the most part. Some believe it's secure enough to have more than 8 characters, a number and special character.

Some don't even go that far.

But the characteristics of a weak password are:

- Common Passwords e.g. password, root
- Common Combinations e.g. 123
- Personal inclusions e.g. A Loved one's name, Date of Birth
- Short password e.g. dog
- One type of character, whether that be numbers, letter or special characters
- Common words and phrases e.g. ILoveFootball

### Strong Passwords

A strong password consists of a balance between security and accessibility. What is the point of a password being so secure it is impossible to remember? For example: eoisjcmeioce£\$%"££"£\$£344522e2e34cfdmle\$ is a very secure password.

But unless you keep that password stored somewhere, you will never be able to remember this password to access your account.

So what should a password be?

A good strong password normally contains the following:

- 4 unrelated words
- At least 1 special character
- At least 1 number

For example: eggf00tballwirespeaker!

This is a good strong password and is a lot more rememberable.

### Storing Passwords

Sometimes you may need to store peoples passwords and it's important that you do this securely so that anyone authorised to access your users' information, still cannot see passwords.

The password should only be known by the user themselves.

O Introduction to OWASP		
Cloud Fundamentals		
AWS Foundations		
AWS Intermediate		
Linux		
DevOps		
Jenkins Introduction		
Jenkins Pipeline		
Markdown		
IDE Cheatsheet		

To make this possible you will need to hash any passwords before storing them.

### **Tutorial**

There is no tutorial for this module.

## **Exercises**

Go <u>here</u> and try entering some passwords you think are weak or strong. To see how long it would take for a password attack to gain access.