



Professional Certificate in Coding

Office Hour Week 7
Carolina Barreiro



Agenda

01

WEEK 7 REVIEW

General Review

02

SOFTWARE TESTING

Overview

03

DOM

Overview

04

EXERCISES

Demo

05

PORTFOLIO

06

Q&A

00 Learning Experience: What to expect from Office Hours

- Review of concepts from the current week module
- Extra resources
- Q&A



REFLECT AND APPLY

Bring your new skills to your organization, through examples from technical work environments and ample prompts for reflection.



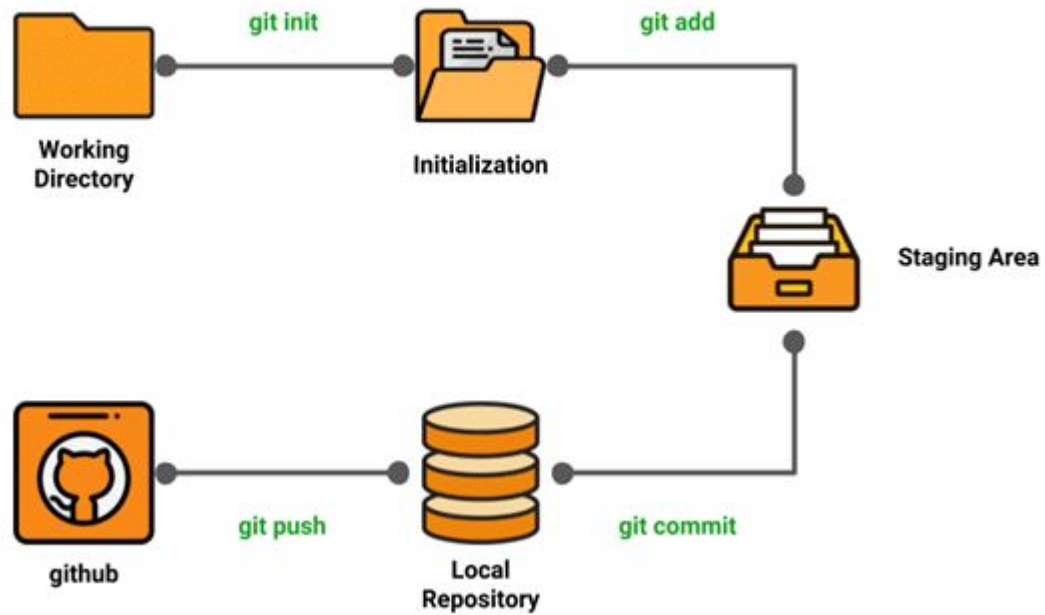
LEARN FROM OTHERS

Connect with an international community of professionals while working on projects based on real-world examples.

01 Week 7 Review

- Git Cycle
 - GitHub
- Software Testing
 - Overview
 - Classification and Types
- Document Object Model (DOM)
 - Injecting Js
- Exercises

01 GitHub Cycle



In software engineering,

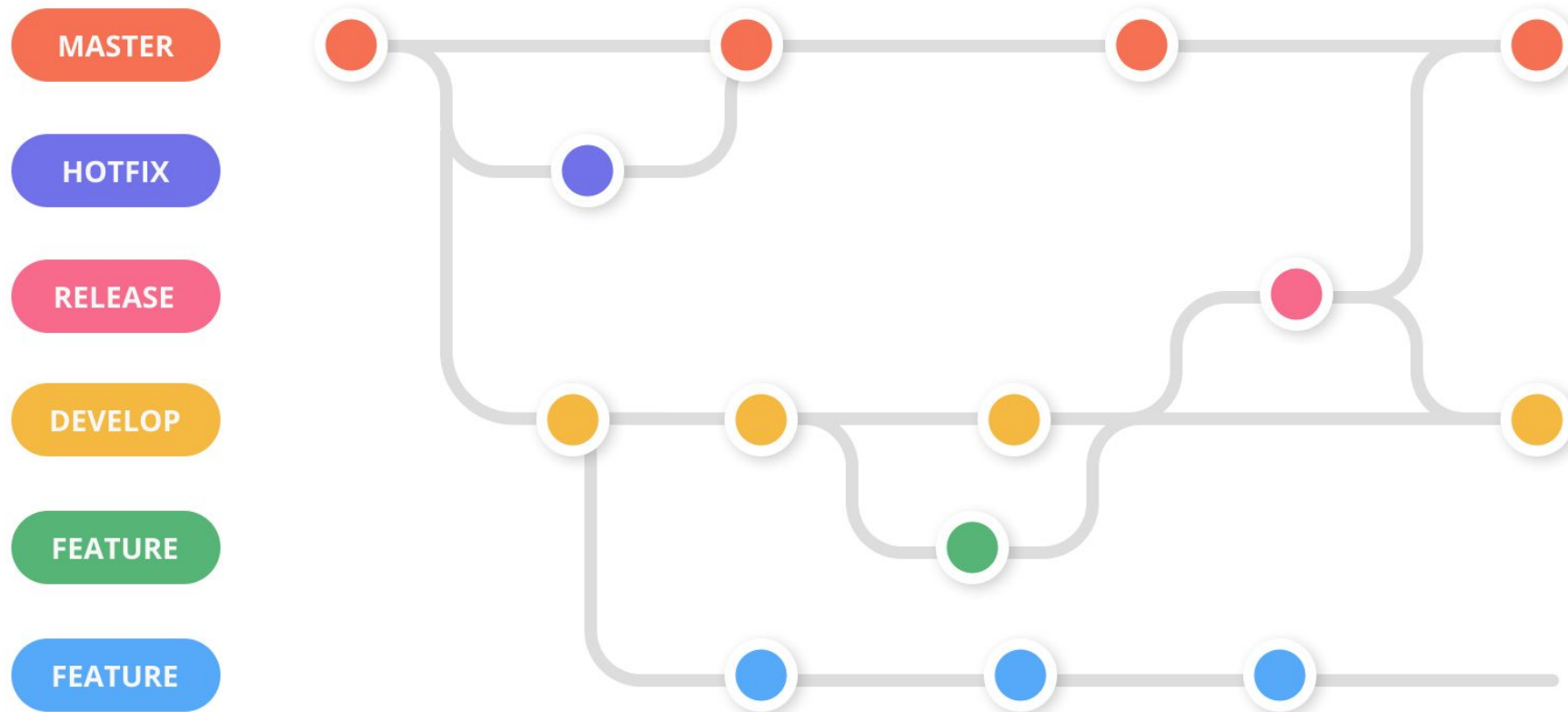
version control

(also known as *revision control*, *source control*, *VCS* or *source code management*) is a class of systems responsible

for **managing changes** to computer programs, documents, large web sites, or other collections of information.

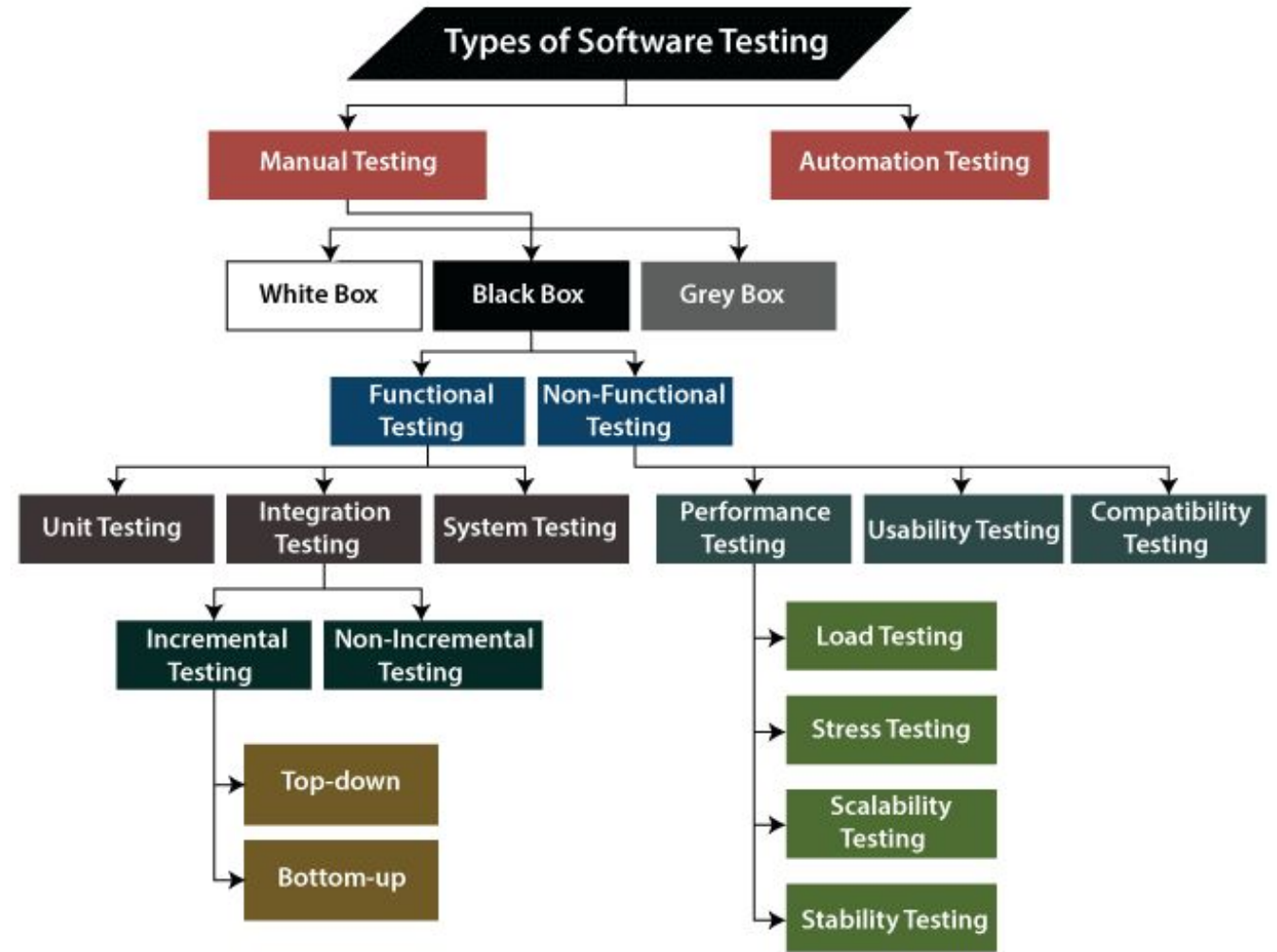


01 Agile Git Cycle



02 Software Testing

Software Testing is a method to **check** whether the actual **software product** matches expected **requirements** and to ensure that software product is **Defect free.**



02 Levels of Testings

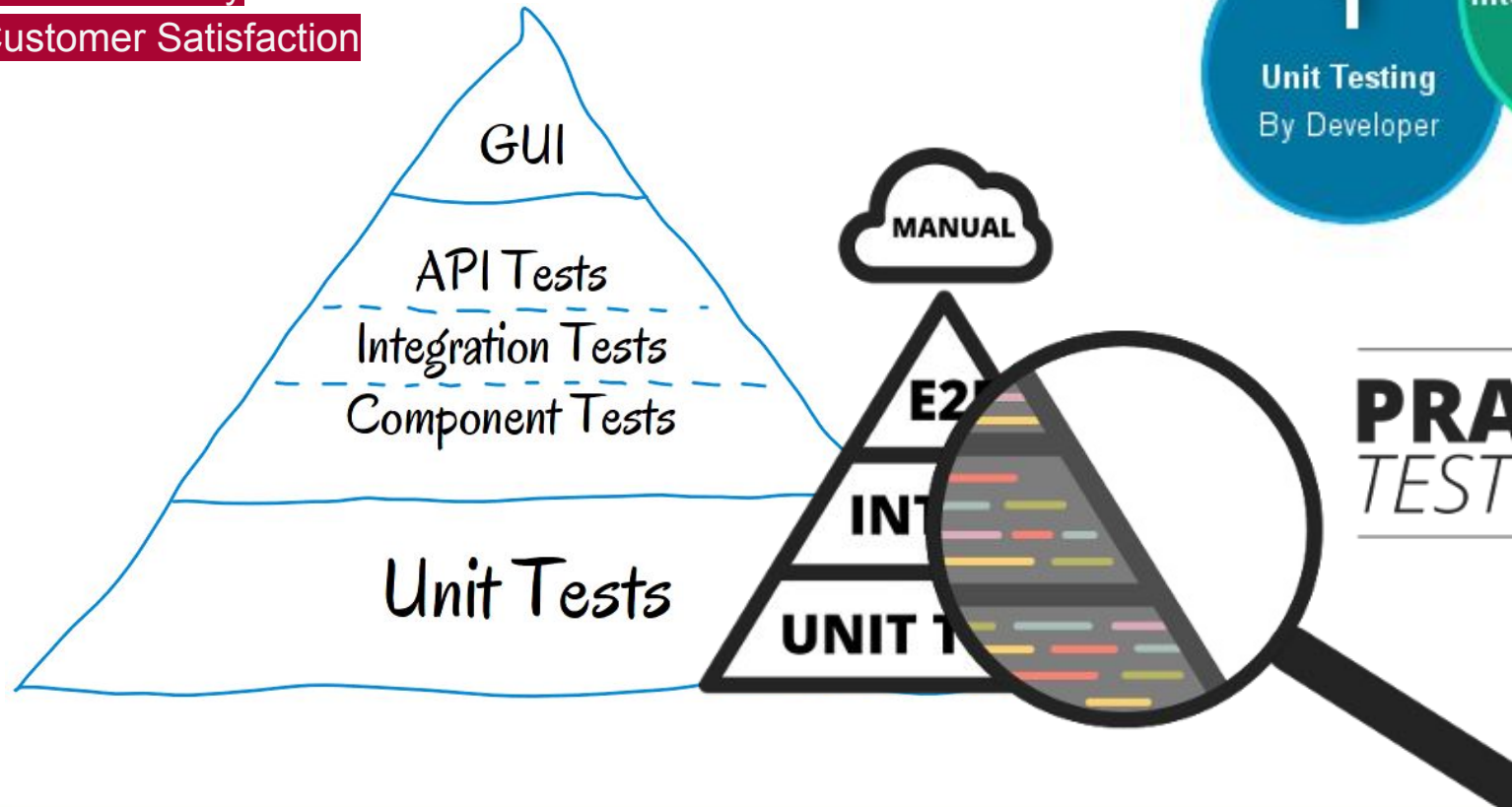
Why?

Cost-Effective

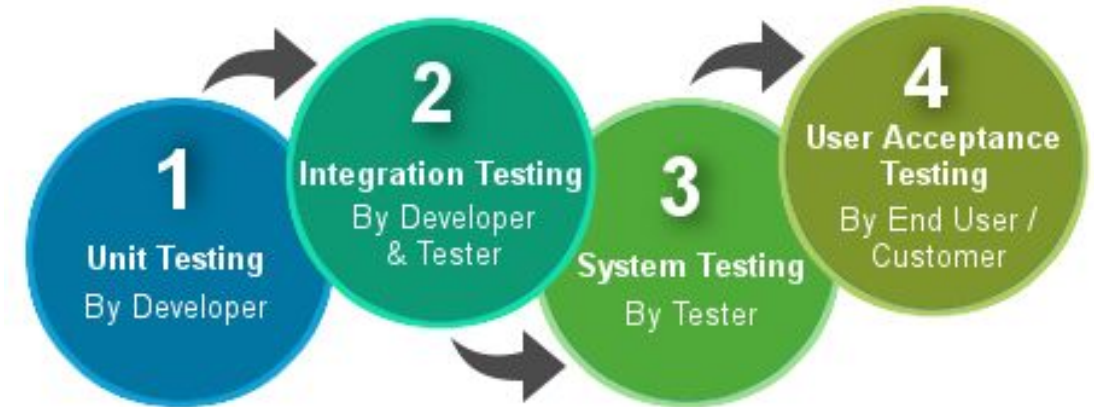
Security

Product Quality

Customer Satisfaction



Levels of Testing



THE
PRACTICAL
TEST PYRAMID

02 Types of Testing



Objective	To verify and validate the software actions that define the process	To verify and validate the performance of the system
Key focus area	Concentrates on the user requirements	Concentrates on the user expectations
Ease of use	Easy to execute black-box test cases	Easy to execute white-box test cases
Functionality	Describes what the system should do	Describes how the system should work
Execution	It is executed before Non-functional testing	It is executed after Functional testing is executed



02 Types of Testing

Functional Testing	VS	Non-Functional Testing
When inputs are valid, app login functions		After login, the dashboard loads within 3 seconds
When email notifications are on, and user receives a new message, an email notification is sent		The email notification is sent within 5 minutes
When a JPG file under 1MB is uploaded, the uploader accepts the file		When eight files or less (each under 1MB) are uploaded at the same time, the queues all
When the settings menu item is clicked, the settings page loads		The settings page has a matching appearance to the rest of the GUI

02 Types of Testing

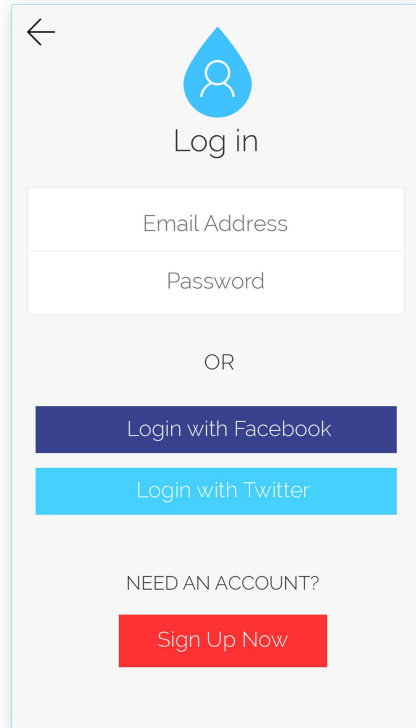
- **Functional Testing**

- Unit testing
- Integration testing
- End-to-end testing
- Smoke testing
- Sanity testing
- Regression testing
- Acceptance testing
- White box testing
- Black box testing
- Interface testing

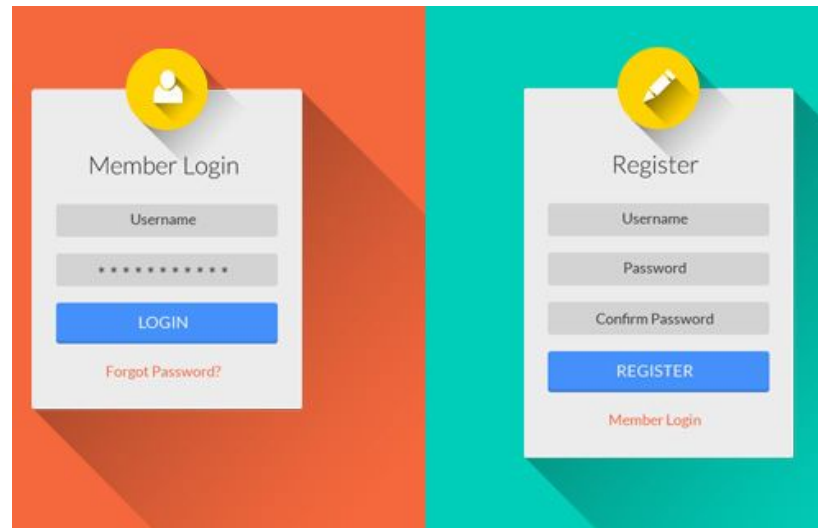
- **Non-Functional Testing**

- Performance testing
- Security testing
- Load testing
- Failover testing
- Compatibility testing
- Usability testing
- Scalability testing
- Volume testing
- Stress testing
- Maintainability testing
- Compliance testing
- Efficiency testing
- Reliability testing
- Endurance testing
- Disaster recovery testing
- Localization testing
- Internationalization testing

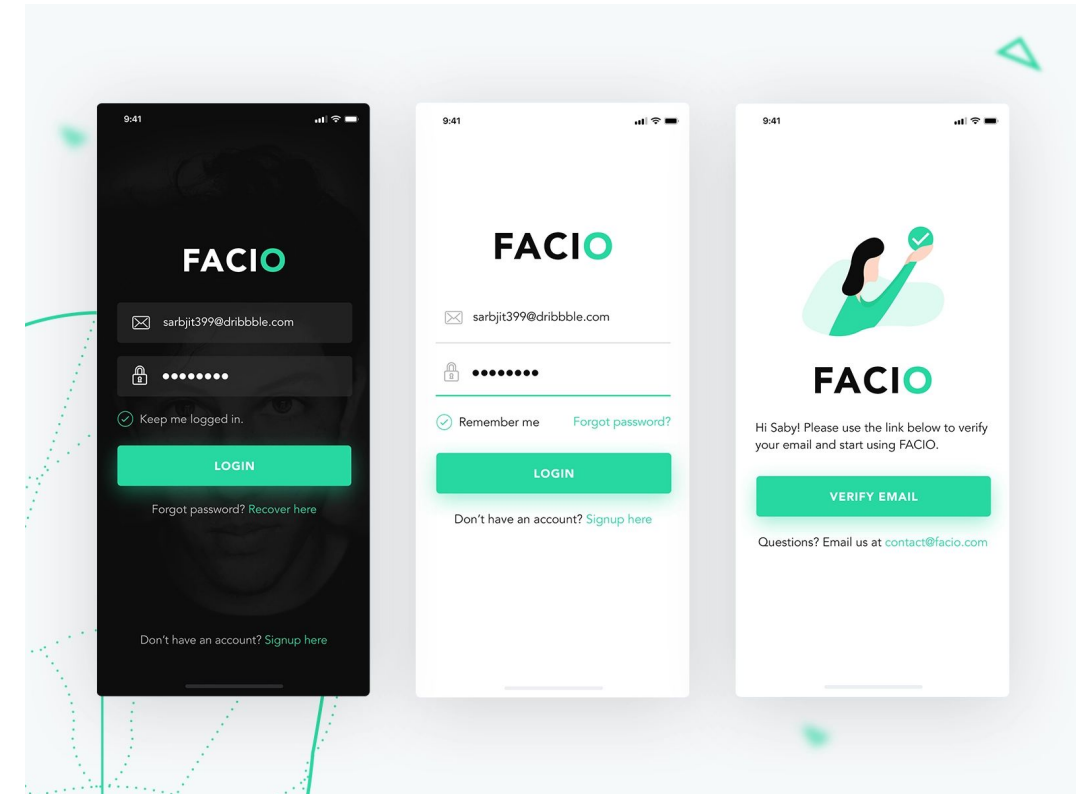
02 Types of Testing



A web login form with a light gray background. At the top left is a back arrow. Below it is a blue water drop icon with a person silhouette inside, labeled "Log in". There are two input fields: "Email Address" and "Password". Below these is an "OR" separator. Two buttons are present: "Login with Facebook" (dark blue) and "Login with Twitter" (light blue). At the bottom, the text "NEED AN ACCOUNT?" is followed by a red "Sign Up Now" button.



Two mobile app form screens. The left screen, titled "Member Login", has an orange background and a yellow person icon. It contains fields for "Username" and "Password" (masked with dots), a blue "LOGIN" button, and a "Forgot Password?" link. The right screen, titled "Register", has a teal background and a yellow pencil icon. It contains fields for "Username", "Password", and "Confirm Password", a blue "REGISTER" button, and a "Member Login" link.



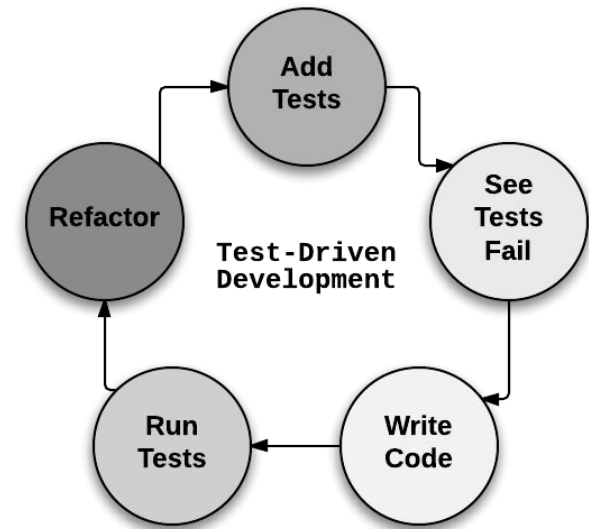
Three mobile app screens for the "FACIO" app. The first screen is a dark-themed login screen with the "FACIO" logo, an email field (sarbjit399@dribbble.com), a password field, a "Keep me logged in." checkbox, a green "LOGIN" button, and links for "Forgot password? Recover here" and "Don't have an account? Signup here". The second screen is a light-themed login screen with the "FACIO" logo, an email field (sarbjit399@dribbble.com), a password field, a "Remember me" checkbox, a "Forgot password?" link, a green "LOGIN" button, and links for "Don't have an account? Signup here" and "Forgot password? Recover here". The third screen is a light-themed verification screen with an illustration of a woman, the "FACIO" logo, a message "Hi Saby! Please use the link below to verify your email and start using FACIO.", a green "VERIFY EMAIL" button, and a link "Questions? Email us at contact@facio.com".

02 Test Driven Development TDD

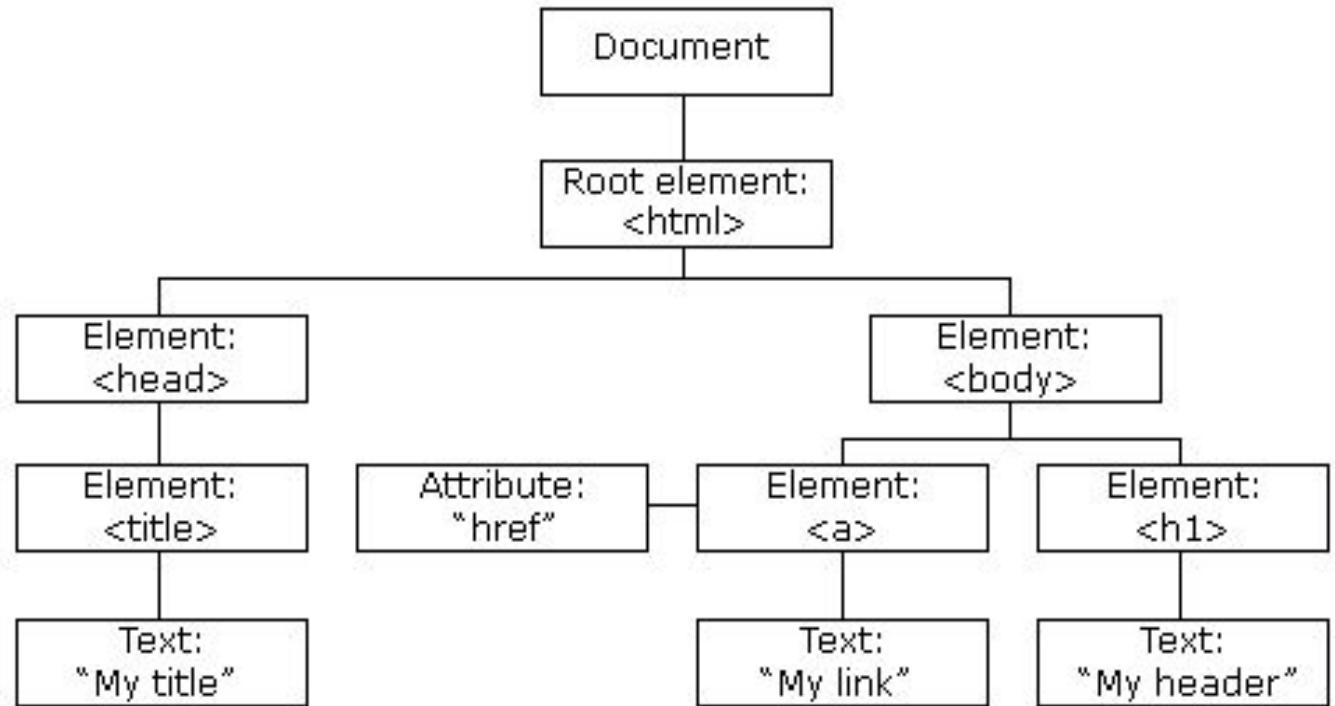
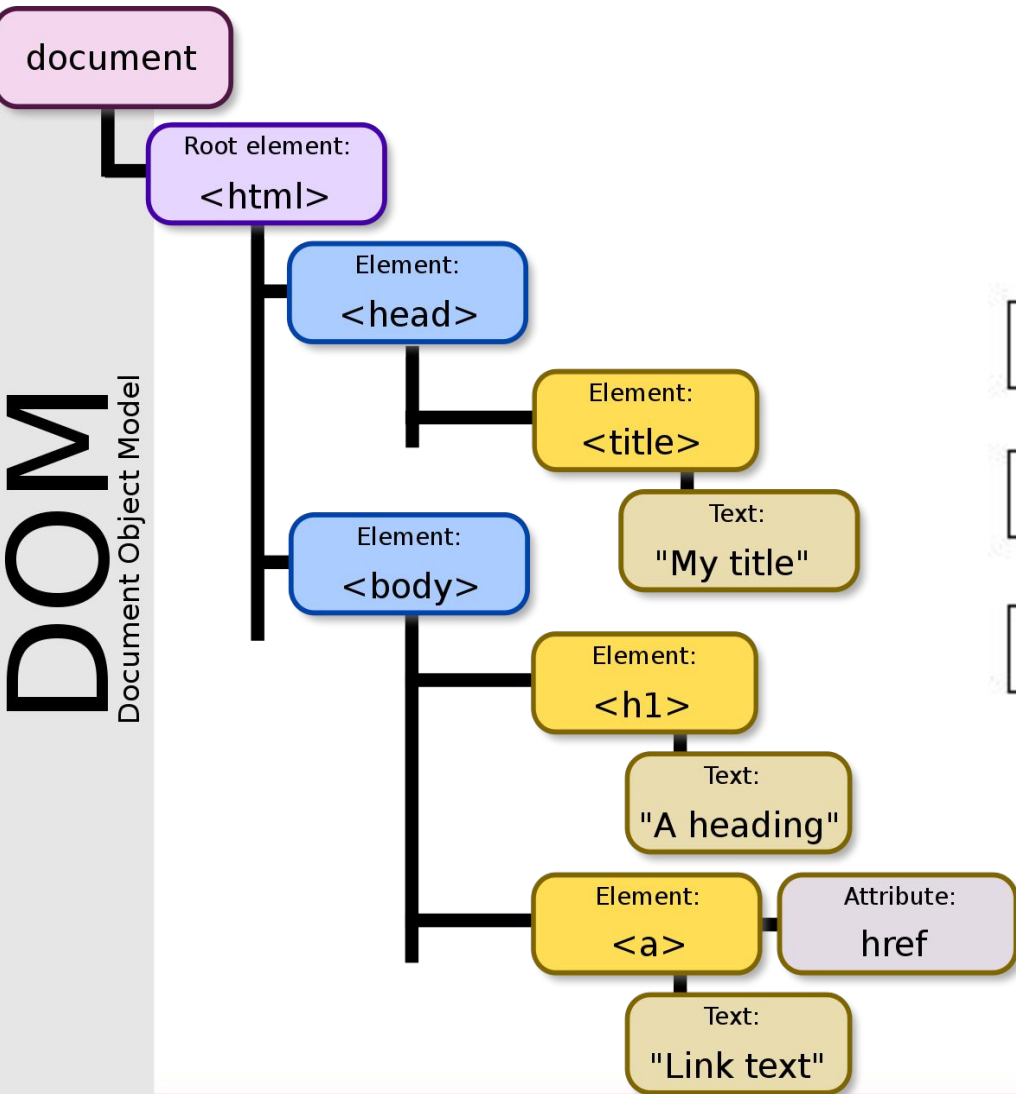
- Manual Testing
 - No automated tools, human work
 - Device Room
- Test Driven Development (TDD)
 - Higher quality code
 - Easier to maintain and update code base
 - Self documenting code
 - Reliable code

Software development process
relying on software requirements
being converted to test cases before
software is fully developed.

*This is opposed to software being
developed first and test cases created later.*



03 DOM



03 DOM

- **Represents** the content of html document **as a tree structure**
- **Document**:file
- **Object**: tags or elements
- **Model**: layout structure
- Easily read, access, update the content of a document

The **HTML DOM** is a standard object model and programming interface for HTML == is a standard for how to get, change, add, or delete HTML elements.

03 DOM

- **Find**

- document.getElementById(id)
- document.getElementsByTagName(name)
- document.getElementsByClassName(name)

- **Change**

- element.innerHTML = *new html content*
- element.attribute = *new value*
- element.style.property = *new style*

- **Add and Delete**

- document.createElement(element) *Create*
- document.removeChild(element) *Remove*
- document.appendChild(element) *Add*
- document.replaceChild(new, old) *Replace*
- document.write(text)



04 Pacmen Factory Exercise

NextTech Assignment



Guided GitHub Exercise



05 Portfolio

#	Criteria	Work Week CARO'S RECOMMENDATION
1	Video	Week 7
2	Website Bio	Week 8
3	Pages and Navigation	Week 9
4	Styles	Week 10
5	Projects	Week 11
6	Bootstrap	Week 10
7-8	PacMen	Week 7
9-10	Eye Exercise	Week 8
11-12	Real Time Bus	Week 9
<u>Portfolio on GitHub due on</u>		



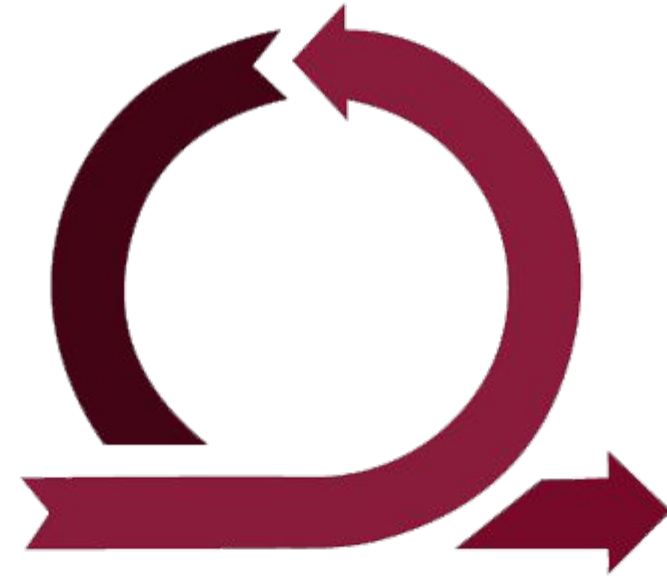
- GitHub Pages Portfolio Assignment Submission
- Course Outline
- Live Sessions: Schedule And Recordings

05 Portfolio

Actual Week	#	Criteria	Work Week CARO'S RECOMMENDATION
W7	1 // 2	Video // Website Bio	Week 7
	7-8	PacMen	Week 7
W8	2 // 1	Website Bio // Video	Week 8
	9-10	Eye Exercise	Week 8
W9	3	Pages and Navigation	Week 9
	11-12	Real Time Bus	Week 9
W10	4	Styles	Week 10
	6	Bootstrap	Week 10
W-P	5	Projects	Portafolio Week
	<u>Portfolio on GitHub due on</u>		

Extra: Agile Learning Experience

- How did you do this week?
- One thing you learned this week that you didn't know about before?
- What still puzzles you?
- Where and when did it go wrong in this week?
- Which things went smoothly in this week?





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Thank you!