**Reference document Notes**

**What is Cypress?**

· Cypress is a next generation front end Automation testing tool built for the modern web applications

**How Cypress is Unique from other Automation tools?**

Cypress [automatically waits](https://docs.cypress.io/guides/core-concepts/introduction-to-cypress.html#Cypress-is-Not-Like-jQuery) for commands and assertions before moving on. No more async hell.

Ability to test Edge Testcases by Mocking the server response

Cypress takes snapshots as your tests run. We can hover over each commands in the [Command Log](https://docs.cypress.io/guides/core-concepts/test-runner.html#Command-Log) to see exactly what happened at each step.

Because of its Architectural design, Cypress delivers fast, consistent and reliable test execution compared to other Automation tools

View videos of your entire tests execution when run from the Cypress Dashboard.

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Cypress built on Node.js and comes packaged as an npm module,

As it is built on Node.js, It uses JavaScript for writing tests. But 90% of coding can be done using Cypress inbuilt commands which are easy to understand.

Cypress also [bundles with jQuery](https://docs.cypress.io/guides/references/bundled-tools.html#Other-Library-Utilities) and inherits many of jQuery methods for UI components Identification

**Cypress Architecture**

Most testing tools (like Selenium) operate by running outside of the browser and executing remote commands across the network. But Cypress engine directly operates inside the browser. In other words, it is the browser that is executing your test code

This enables Cypress to listen and modify the browser behavior at run time by manipulating DOM and altering Network requests and responses on the fly

Cypress open doors to New Kind of testing with Having ultimate control over your application (front and back)

Cypress Browser Support:

Chrome  
Electron  
Firefox & IE

Cypress Components:

Test Runner  
Dashboard Service

**Course Outcome:**

By end of this course, you should be able to Automate any Web App using Cypress  
You will understand how Cypress is Unique to build Non-Flaky Stable Automation tests with the help of jQuery  
You can mock network requests and responses with Cypress  
Ability to Design Cypress framework from scratch with all the Testing standards

Integrate Cypress Test Framework to Jenkins for CI/CD

**Course Prerequisites:**  
  
None for 90% of lectures.  
Basics of API knowledge when dealing with API mocking topics. (10% lectures)  
JavaScript Basics are taught in parallel when required with Cypress concepts