



# Part 1: Introduction

## What is Cypress?

- Frontend web automation testing tool
- modern web applications
- React JS, Angular JS
- Language : JavaScript, TypeScript
- Any application which runs on browser
- Open source
- Testrunner - free  
Dashboard - paid
- Node.js comes with npm module

## Who uses Cypress? → Dev & QA

- End-to-end test cases
- Integration tests
- Unit test cases
- API testing

## Selenium VS Cypress

	Selenium	Cypress
<b>Application Support</b>	Only Web	Web & API
<b>Cost</b>	Free	Test Runner - Free Dashboard - Paid
<b>Setup &amp; Installation</b>	Difficult	Easier
<b>Languages</b>	Java, Python, Ruby, C#, JavaScript	JavaScript , TypeScript
<b>Browsers</b>	Chrome, Edge, Firefox, Safari, Opera & IE11	Chrome, Edge, Firefox & Electron
<b>Frameworks Support</b>	Junit, TestNG, pytest etc. based on programming language	Mocha JS
<b>Performance</b>	Runs outside of the browser . So performance is Slow when compare with Cypress.	Faster since it runs inside of the browser.
<b>Reporting</b>	Integrate with Extent, Allure etc..	Mocha reporters, Cypress dashboard

## Cypress Ecosystem

1. TestRunner - open source. locally installed
2. Dashboard - paid

## Features of Cypress

- Time travel
- Debuggability
- Automatic waits (built-in waits)
- Consistence results
- Screenshots and videos (built in)
- Cross browser testing - locally or remotely

## Limitations in Cypress

- Can't automate window based/mobile apps
- Limited supports for browsers
- Only for JavaScript/TypeScript

- Reading or writing data into file is difficult
- Third party reporting tool integration is also limited