Introduction

Thank you for giving me the opportunity to introduce myself! My Name is Swapnil Bansi Gaikwad. I am basically From Sangamner, I have completed my graduation from Pune university, I have almost 3 year of experience as a tester. Where I have work on both manual & Automation Testing.

In my experience, I get an opportunity to work on 2 project. In which one was insurance domain & other one was in e-commerce domain In their project we have used **Agile methodology** for testing and Development purpose and **cypress, playwright** as an automation tool and **java Script**. While working on those project, I have get hands on experience tool like **jira**, **git**, **gitHub**, **postman**. Talking about framework initially by default we have used **Mocha Framework** but as per client requirement we have implemented **page object model(pom) and BDD cucumber**.

currently I am working for XYZ as a automation Test engineer. While working as a automation T.E, I have some role's and responsibility like I have to understand the customer requirements, user stories and according to that test script as per test document and also execute the same.

➤ **Agile Methodology -:** (started in the early 2000s — officially in 2001.)

What is Agile Methodology -

In simple way we can say that Working in small steps and improving continuously instead of doing everything at once.

In short

Work is divided into small parts (iterations/sprints)

Team and client talk regularly

Quick feedback and fast changes

Goal: deliver a working product step by step

Example:

Imagine you are making an app -

In Agile, you don't build the whole app and then test at the end.

You build a small part (like login) \rightarrow test it \rightarrow fix it \rightarrow then move to the next part (like signup).

After every small cycle (called a Sprint), you get feedback and improve.

➤ What is Cypress (Available for public in 2017)

Cypress is a tool used for testing websites and web apps automatically.

It helps developers and testers check if everything on a webpage is working correctly - like buttons, forms, links, and pages - without testing manually every time.

In simple way Cypress is like a robot tester that opens your website, clicks buttons, types text, and checks if results are correct.

Where we use/Uses of Cypress

- 1. Front-End (UI) Testing
- 2. End-to-End (E2E) Testing
- 3. Integration Testing
- 4. API Testing
- 5. Regression Testing

What is Playwright . (Founded by Microsoft and available for public in 2020)

Playwright is a tool used for automated testing of websites and web apps, just like Cypress.

It helps you check if your website works correctly — automatically — without having to click and type manually.

In simple way

Playwright is like a robot user that opens a browser, clicks buttons, fills forms, and checks if the website behaves correctly.

It can test your site on Chrome, Firefox, Edge, and Safari - all browsers!

Where we use/Uses of Playwright

- 1. End-to-End (E2E) Testing
- 2. UI (Front-End) Testing
- 3. Cross-Browser Testing
- 4. Mobile & Device Testing
- 5. API Testing
- 6. Visual & Screenshot Testing

➤ What is Javascript (Created by Brendan Eich in 1995)

JavaScript (JS) is a programming language used to make websites interactive.

It adds life to web pages — things that move, change, or respond when you click or type.

In simple way

HTML - makes the structure (skeleton) of a webpage

CSS - makes it look beautiful (design)

JavaScript - makes it work (actions & logic)

Where we can use Javascript

- 1.Websites (Front-End)
- 2. Backend Development
- 3. Mobile App Development
- 4. Desktop Apps
- 5. Game Development

What is Jira (Created by: Atlassian in 2002)

Jira is a software tool used to manage work and track tasks - especially in software development and testing. It helps teams plan, assign, and monitor their work in one place.

In simple way

Jira is like a digital to-do board for teams.

Each task (like "fix login bug" or "add new button") becomes a ticket or issue in Jira.

You can track its progress — from "To Do" \rightarrow "In Progress" \rightarrow "Done."

Where we use/Uses of Jira

- 1. Software Development Projects
- 2. Bug Tracking (Testing teams)
- 3. Project Management
- 4. Service / Support Teams
- 5. Any Team Work Tracking

➤ What is Git (Created by Linus Torvalds in 2005)

Git is a version control system.

It helps developers track changes in code, save versions, and work together without overwriting each other's work.

In simple word

Think of Git like a save button for your code, but much smarter.

You can go back to any previous version, see what changed, and collaborate with teammates easily.

Where we use/Uses of Git

- 1. Version Control (Track Changes)
- 2. Collaboration
- 3. Branching and Merging
- 4. Backup and Safety
- 5. Continuous Integration / Deployment (CI/CD)
- What is GitHub (Created by Tom Preston-Werner, Chris Wanstrath, PJ Hyett, and Scott Chacon in 2008)
 GitHub is a website where people store, share, and manage their code or projects.

Uses of GitHub

- 1. Teamwork on coding projects
- 2. Sharing open-source projects
- 3. Storing your portfolio code
- 4. Managing updates and bugs

What is Postman. (Created by Abhinav Asthana in 2012)

Postman is a tool used to test APIs (Application Programming Interfaces).

In simple word

When two software or apps talk to each other - they do it through APIs.

Postman helps you send requests to those APIs and see their responses - just like chatting with a server.

Where we use/Uses of Postman.

- 1. To test if an API works correctly
- 2. To check what data an API sends back
- 3. To debug issues in your backend or frontend
- 4. To automate API testing

What is Mocha Framework. (Created by TJ Holowaychuk in 2011)

Mocha is a testing framework for JavaScript — it helps you test your code to make sure everything works correctly.

In simple word

When you write code (like a function or app), you want to check automatically if it gives the correct output. Mocha helps you run those checks easily.

Where we use/Uses of Mocha Framework

- 1. Testing backend (Node.js) or frontend JavaScript code
- 2. Making sure updates don't break old features
- 3. Running tests automatically during development

➤ What is Page Object Model (people started using in early 2000s)

It is a design pattern used in test automation (like with Selenium, Cypress, or Playwright) to make your test scripts clean, easy to maintain, and reusable.

Where we use/Uses of Page Object Model

- 1. Keeps code organized
- 2. Makes test scripts shorter
- 3. Easier to update if something changes on a page
- 4. Improves reusability of code
- What is BDD Cucumber (BDD started conceptually in mid-2000s, and Cucumber was created in 2008 to implement BDD in a readable, automated way.)

BDD (Behavior Driven Development) means writing tests in a human-readable format that even non-technical people (like business analysts or clients) can understand.

It focuses on the behavior of the application — what it should do, not how it's done.

Where we use/Uses of BDD Cucumber

- 1. Feature file Written in Gherkin (as above).
- 2. Step Definitions Code behind each line that performs the real actions.