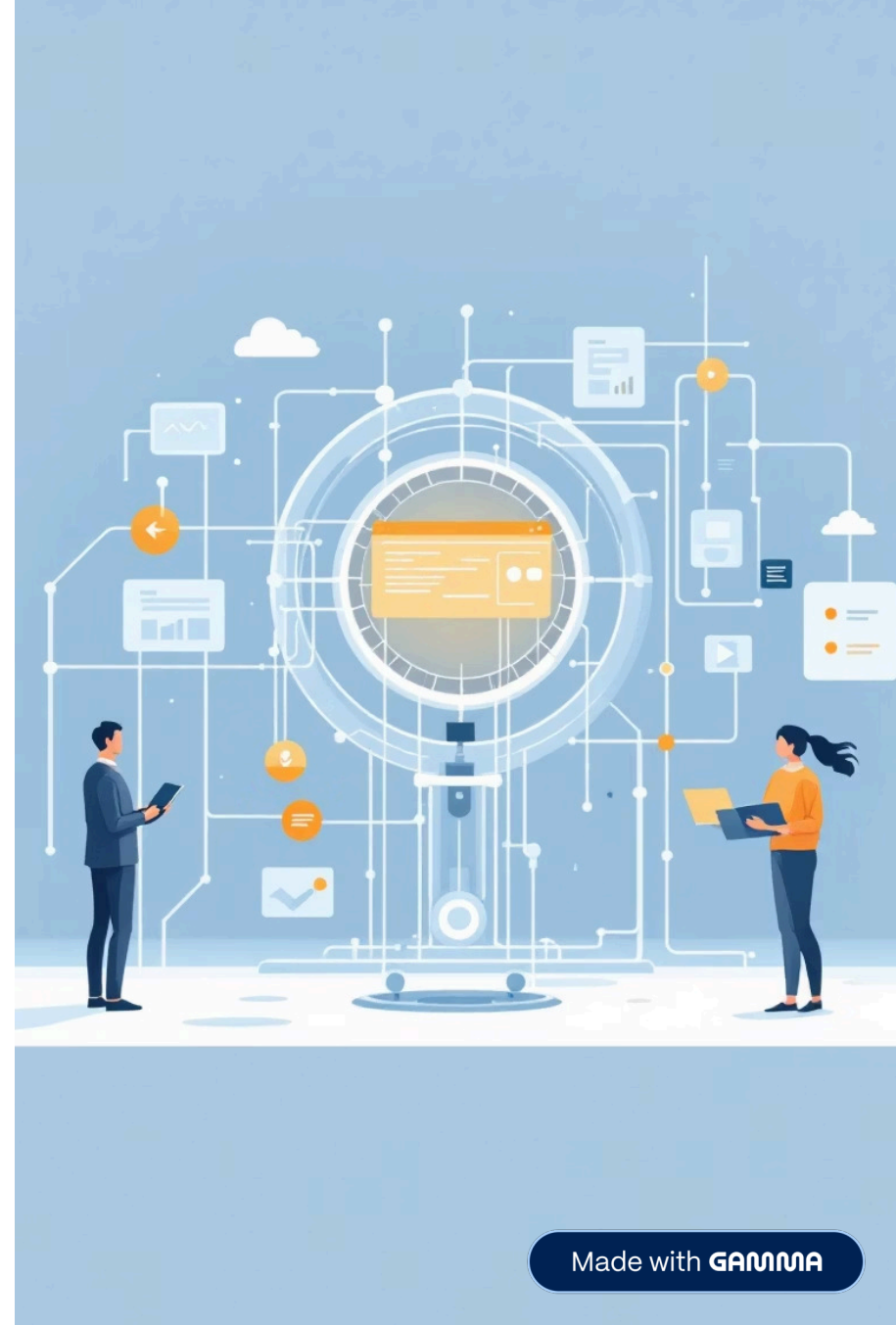


E2E Test Framework

Prepared by: Hari Krishna



Tech Stack Used



Java 17

Core programming language



Selenium WebDriver

UI automation



RestAssured

API automation



TestNG + Cucumber BDD

Execution & BDD flow

Cucumber HTML Reporting

Primary reporting

Allure Reporting

Detailed rich reporting

Maven

Build & dependency management

Jenkins

CI/CD automation

Git & GitHub

Version control

Framework Features



Hybrid framework using POM + BDD + API testing



Reusable utilities for waits, logs, and drivers



Supports both Cucumber and Allure reporting



Parallel execution using TestNG/Cucumber



Environment-based config handling



Strong exception handling with retries



Page Object Model for better reusability

Automation Framework Architecture

1	features/ Cucumber Feature Files
2	stepdefinitions/ Glue code
3	pages/ Page Object Model classes
4	api/ API request utilities
5	utils/ Helper & reusable utilities
6	config/ Environment configuration files
7	runners/ Test execution runners
8	reports/ Cucumber + Allure reports

Challenges Faced

Dynamic UI element handling

Synchronization issues while loading pages

Integrating UI + API flows together

Jenkins dependency issues

Git merge conflicts & permission errors

Managing API test data

Learnings

Better understanding of hybrid frameworks

Hands-on experience with Cucumber + Allure reporting

Improved debugging practices

Strengthened knowledge in CI/CD pipelines

Enhanced framework structuring concepts

Understanding UI + API integrated flows

Future Enhancements / Roadmap



API automation integration using Rest Assured



Parallel execution



CI/CD integration using GitHub Actions or Jenkins



Advanced reporting with Allure or Extent Reports

Thank You!

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