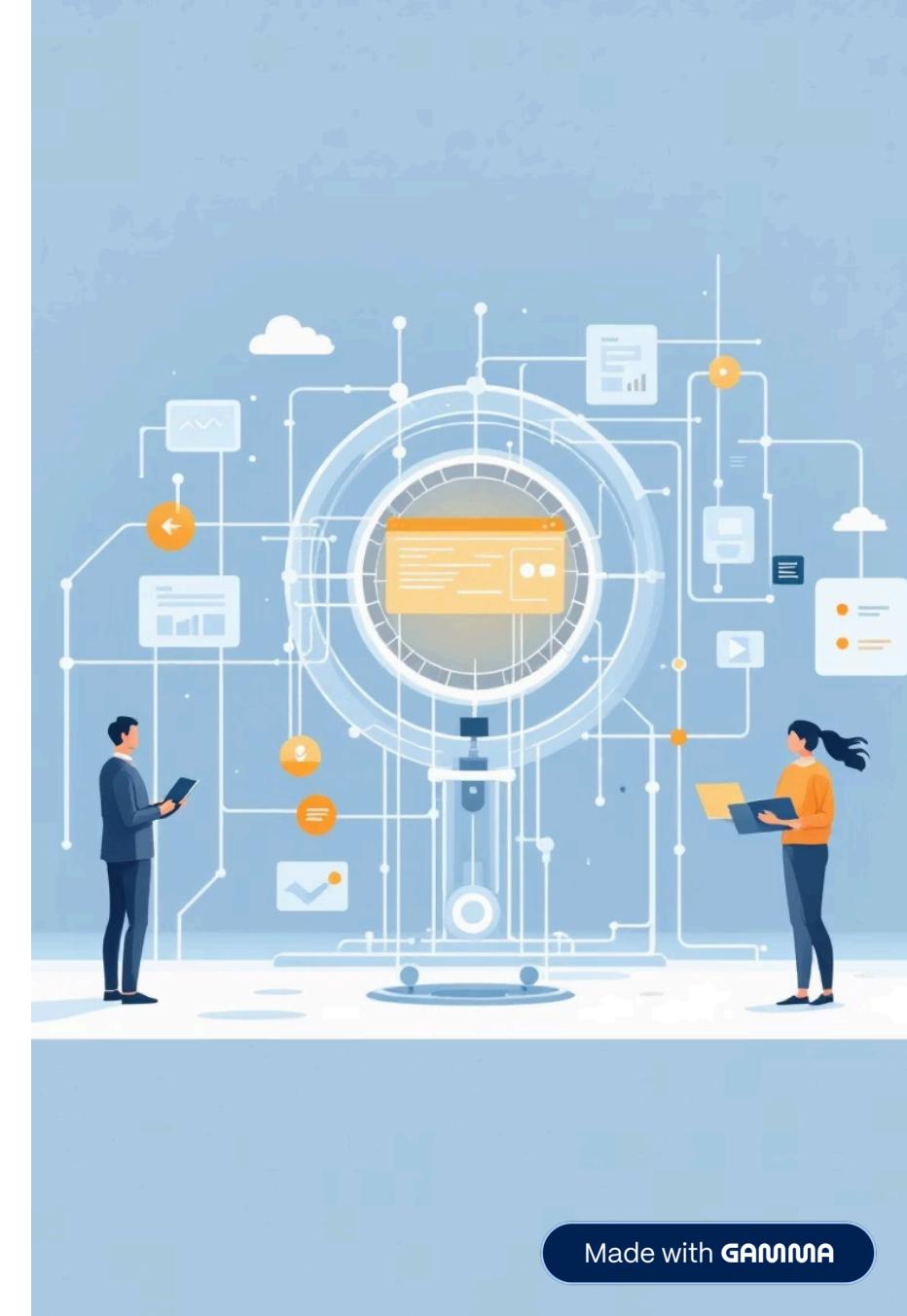


E2E Test Framework

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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