

CASE STUDY OF

APPLICATION DEVELOPMENT & MODERNASIZATION

One of India's top 5 Asset Management Companies

It is among India's leading mutual fund investment company and provides different types of mutual funds, mutual fund calculators, guide to mutual funds, sip investment, tax saving elss mutual funds.

Business Challenge

- 👉 Code quality improvements.
- 👉 Testability improvements at all development/ testing phases.
- 👉 Automation of testing.
- 👉 Build and deployment automation.
- 👉 Modern scalable architecture approaches.

- Test driven development process implementation on key identified projects.
- Implementation of Code quality and test coverage metrics to drive better testability.
- Development Operations automation based on TFS and Azure DevOps.
- Achieve automated continuous Integration and continuous deployment via setting up of CI/CD pipelines for all projects progressively.
- Test automation of system, UI, and integration and performance tests.
- Key Agile development metrics to be extracted and monitored on Agile dashboards to showcase the overall progress vis a vis modernization.
- Roadmap and implementation of a micro services architecture to cover all enterprise applications in a phased manner.
- Create a framework of knowledge capture in Wiki for all the IT assets delivered.



Execution



Establish a Test-Driven Development (TDD) process and get stakeholder buy in.

Hands on Workshops for each sub-team on “how to” on unit testing, TDD and code analysis evangelization.

Specify coding standards and test coverage metric goals.

Identify tooling (e.g., Azure Devops)

Implemented pipeline with SAST toolset.

Setup and agree on incremental goals and timeline for compliance to metrics.

Create a test strategy document with standards for test automation strategy, planning, and scripting.

Define Automation strategy and tooling.

System, performance, and API testing (e.g., Selenium, Postman, JMeter)

Develop reference models for testing.

Training workshop on test automation scripting to help increase test scripting adoption.

Scripting “Cookbooks” with implemented sample scripts to ease adoption.

Automated build and deployment from the current TFS source repository will be planned and implemented.

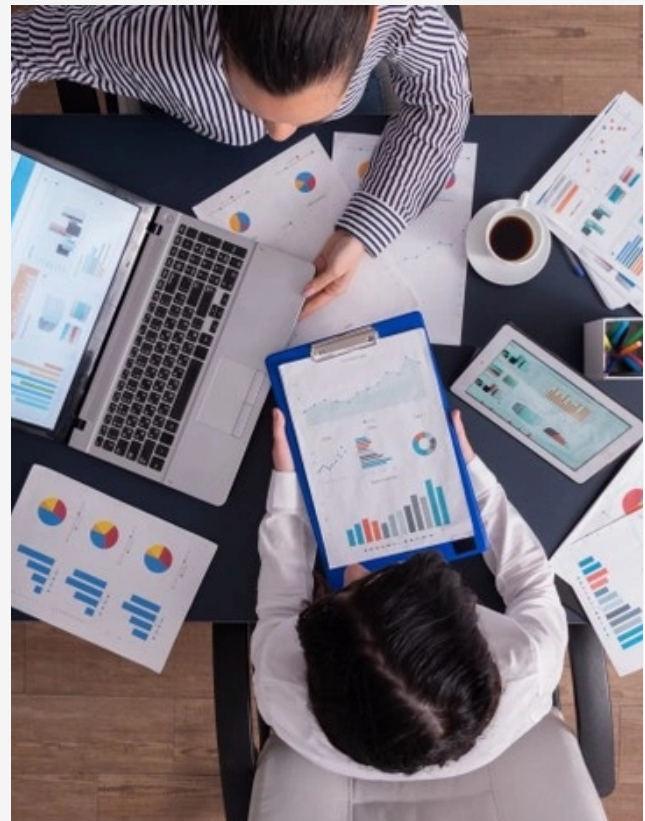
The team automated the build/deployment process using Azure DevOps for CI/CD pipeline covering build and deployment steps to all target environments.

It includes automated testing within the pipeline as a pre-condition for deployment.

Adoption of a micro-services architecture (MSA) framework.

Planned and executed de-composition of current services into MSA components.

Selection of suitable container and orchestration technology and implementation a reference model on projects.



Capability & Competency



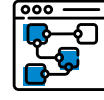
01

Micro-services
Architecture
(MSA)
Framework



02

CQRS
(Command Query
Responsibility
Segregation)
Architecture
Pattern



03

UI Testing on
Multi Target
Clients (e.g.,
Browser Stack,
Firebase)



04

Implement a
CI/CD Pipeline
with Code
Analysis
Automation

For more information
Contact: info@skill-mine.com
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