NoVA Ascend Dynamics

TRANSFORMING VISIONS, IGNITING GROWTH

Capabilities

Quality Assurance

About Us

Great Place To Work. Certified INDIA

25+ YEARS OF EXCELLENCE

CMMIDEV/5

Overview

4000+ Employees

10 Global Offices

9 Development Centers

Office Space **1,00,000+** Sq.ft.

Clientele

1500+ Clients

50+ Countries

85% Clients Retention

Industry Verticals **22+**

Achievements

2000+ Products Engineered

1500+ Applications Developed

12+ Awards

20+ Million Development Hours

Partners

aws

SAP

Microsoft

Google Cloud

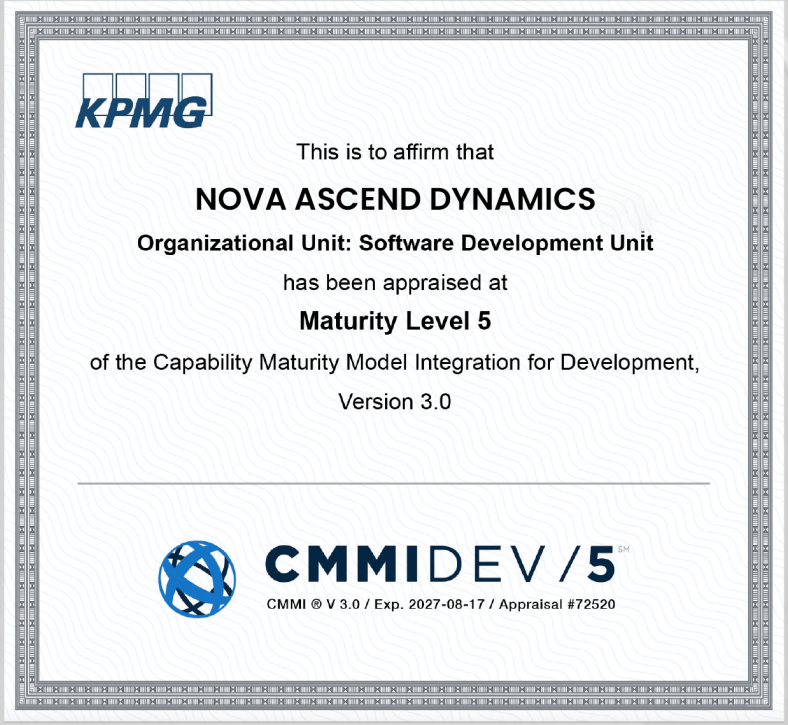
Magento

shopify

WOO COMMERCE

Certified To Deliver Quality

Great Place To Work.
Certified
OCT 2024–OCT 2025
INDIA



KPMG

This is to affirm that

NOVA ASCEND DYNAMICS

Organizational Unit: Software Development Unit

has been appraised at

Maturity Level 5

of the Capability Maturity Model Integration for Development,

Version 3.0

CMMI DEV/5℠

CMMI ® V 3.0 / Exp. 2027-08-17 / Appraisal #72520

ISO
9001:2015
Quality Management

ISO
27001:2013
Information Security

ISO
20000-1:2011
IT Management

ISO
22301:2012
Business Continuity Management

Our Capabilities

Functional Testing

Performance Testing

Reliability Testing

Accessibility Testing

Security Testing

Native Apps Testing

Regression Testing

Load & Stress Testing

UI Testing

Our Expertise

We help businesses wherever they are in their digital journey. From consulting for a **digital transformation** to carving out a **technology roadmap**. Our expertise helps you to **drive ROI** from your digital initiatives.

Digital Transformation

- UX/UI Consulting
- Web & Mobility Solutions
- Enterprise API Management
- RPA
- Legacy Modernization

Digital Product Engineering

- Custom Software Engineering
- QA Services
- Maintenance
- Managed Services

Infrastructure & IT Operations

- Cloud Consulting
- DevSecOps
- Cloud Migration
- Cloud Management

Data Management & Analytics

- Data Engineering
- Governance
- B.I. & Analytics

Artificial Intelligence

- M.L. Models
- Model Generation
- M.L. Ops
- Data Science

Internet of Things

- IoT Consulting
- Software Defined Features
- IoT Applications

Innovation Lab

- MVP & POCs
- Rapid Prototyping
- Emerging Tech

Team Augmentation

- Solution Architects
- B.A.
- Developers
- Data Scientists

What We Do

Team Augmentation

A team of 4000+ Battle Tested engineers across 100+ Different Stacks.

We are your Digital Factory, dedicated teams to supercharge your development throughput.

0 Operational Overheads.

Agile & On Demand.

Fixed Scope

We offer meticulously crafted project specifications and timelines for cutting-edge development, seamless integrations and feature-rich solutions.

The Nova Ascend Dynamics approach ensures your projects are delivered with precision and excellence.

Managed Services

Our IMS services helps enterprises to run Business as usual.

With strong SLA driven services, 24x7 Support, Governance and Technology expertise, we help to optimize processes and costs.

Our Quality Assurance Services

01.

QA Consulting

- Testing strategy & implementation
- Test plan creation & verification
- Testing pipeline development
- BDD & TDD
- DevOps practices
- Automation

02.

Infrastructure Testing

- Cloud adoption/adaptation testing
- Availability testing
- Compute/network/ storage testing
- DevOps & CI/CD enablement
- System resilience & process testing
- Infrastructure security

03.

Digital Testing

- Web UI
- Mobile functionality
- Configuration testing
- Load balancer testing
- SMAC (Social, Mobile, Analytics, Cloud) testing
- Security testing
- Third party integration testing

03.

Specialized Testing

- Emerging technologies - blockchain, hybrid apps, AR/VR etc.
- Configuration management
- Pre-emptive testing
- Hazard mitigation
- VAPT Testing

01.

Data QA

- Data accessibility, quality, validity, integrity testing
- Database configuration validation
- Storage testing
- Table & column testing
- Schema testing
- Trigger testing
- Black box & white box testing
- Database backup testing

02.

Testing Automation

- Automation of unit/ integration/ smoke/performance testing
- Code analysis automation
- ChatOps
- Sustaining Agile processes
- End-to-end testing automation

03.

Managed QA Services

- End-to-end managed testing & Quality Assurance
- Customized testing methodologies
- Expertise with various testing tools
- Readily deployable talent
- Compliance with governance policies/standards

QA Tools we use

Performance & Load Testing Tools

- Apache JMeter
- HP LoadRunner
- HP StormRunner
- NeoLoad
- LoadImpact
- WebLOAD
- LoadUI NG Pro
- LoadView
- AppLoader
- Appvance
- SmartMeter.io
- Rational performance tester
- LoadComplete
- LoadStorm
- Httperf
- BlazeMeter
- Load Multiplier
- Loader.io

Security Testing Tools

- SQLMap
- Websecurify
- Safe3 Scanner
- Samurai Framework
- Nikto
- Aircrack
- OpenVAS
- Metasploit
- Nmap
- Wireshark

Bug Reporting Tools

- Atlassian JIRA
- Mantis
- Bugzilla
- Plutora Test
- Backlog
- Trac
- Redmine
- HP ALM
- FogBugz
- IBM Rational ClearQuest
- Lighthouse
- BugNET
- eTraxis
- Team foundation server

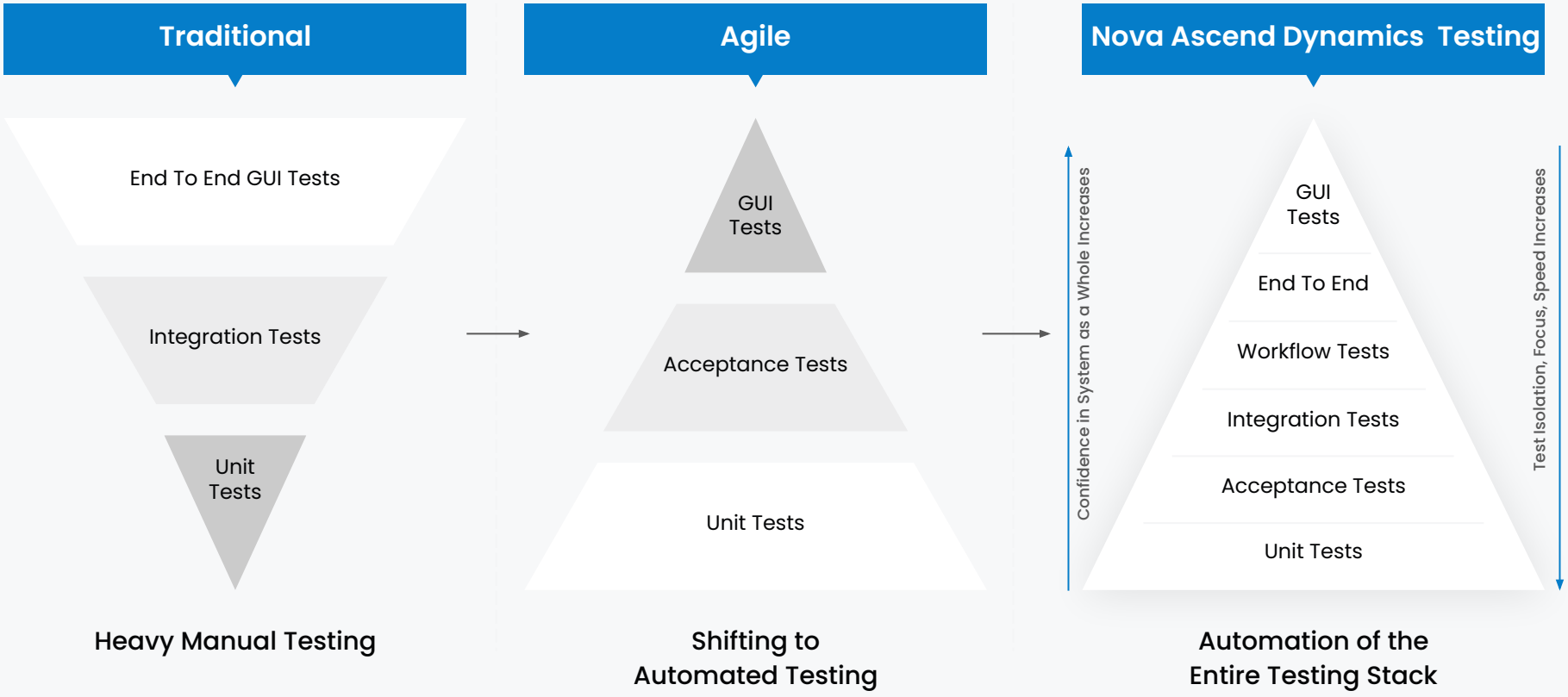
Automation Testing Tools

- Appium
- MonkeyTalk
- Robotium
- UI Automator
- Selenium
- Cucumber
- Silk Test
- Eggplant
- RSpec

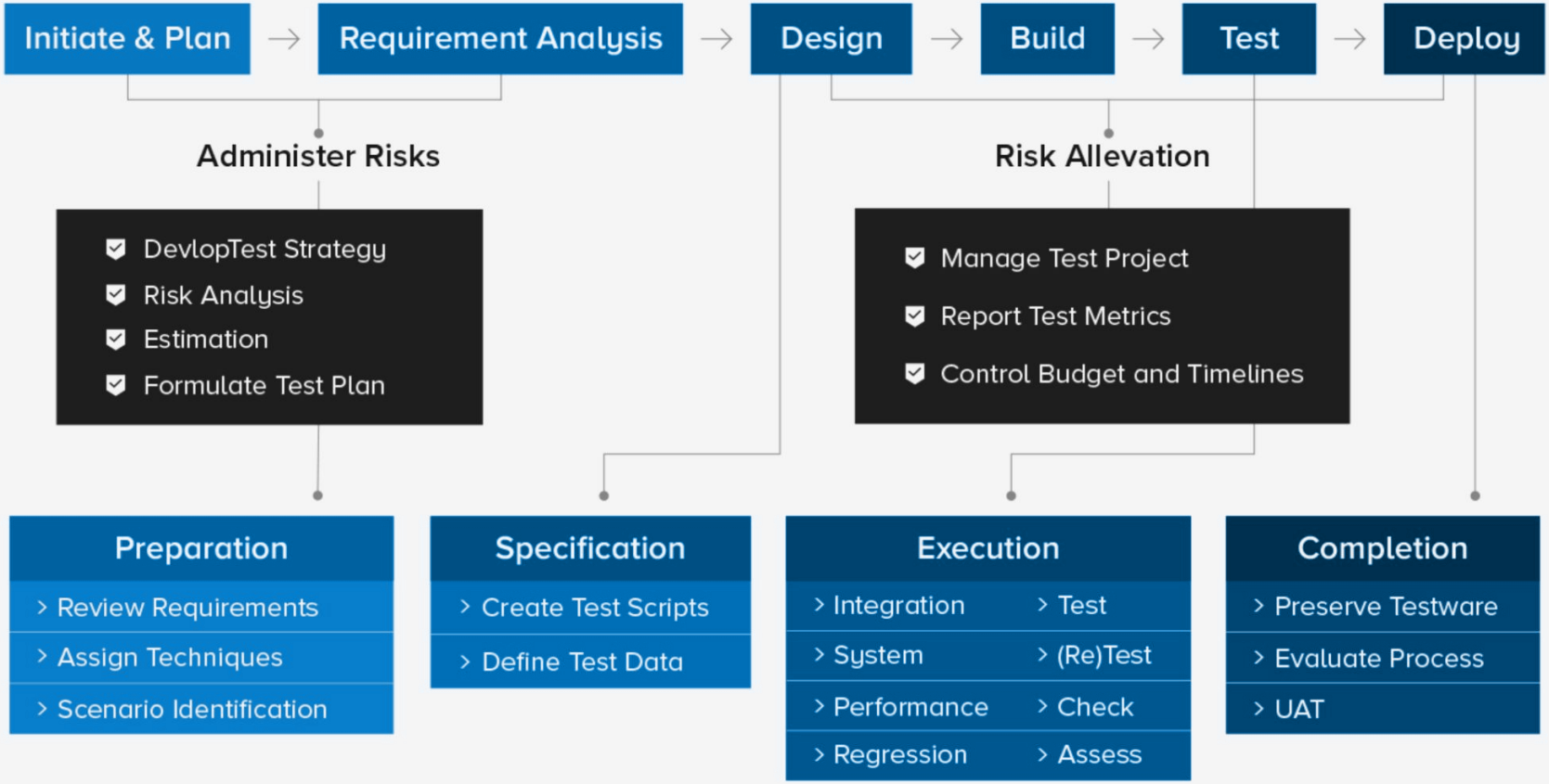
Programming Languages

- C/C++
- Java
- SQL
- Python
- Perl
- XML
- HTML / CSS

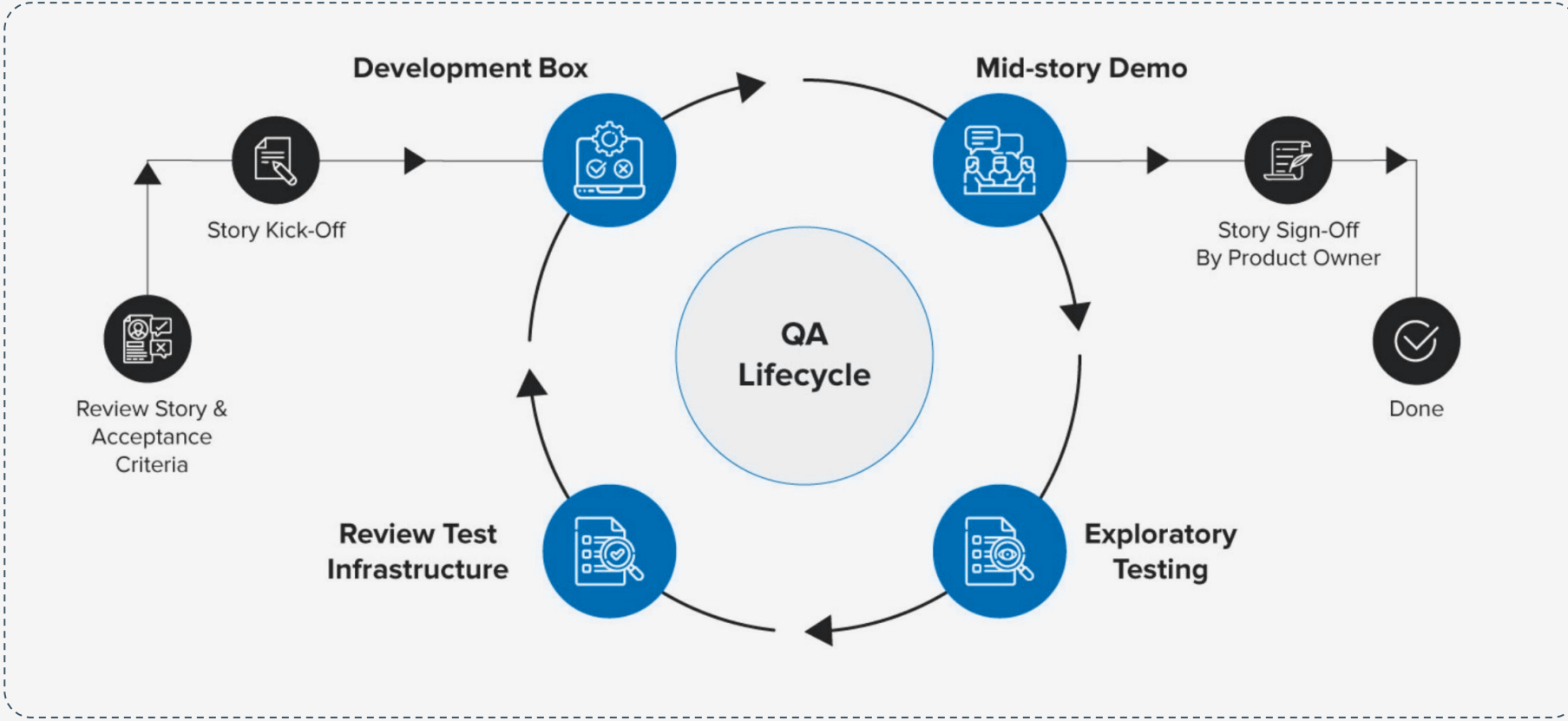
The Nova Ascend Dynamics Edge



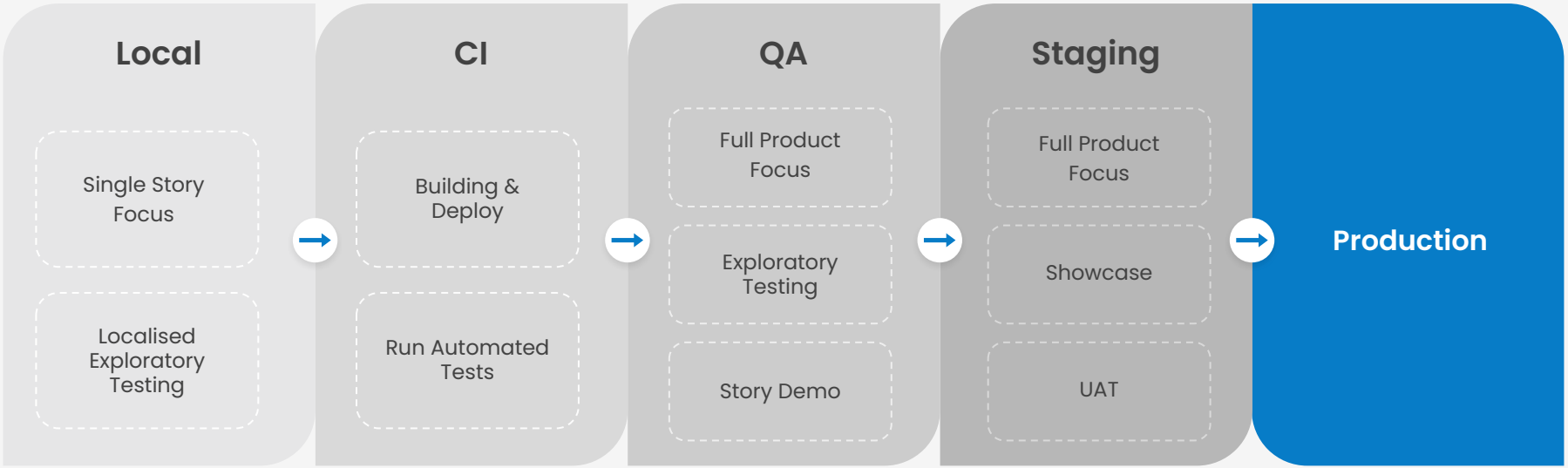
Our Approach



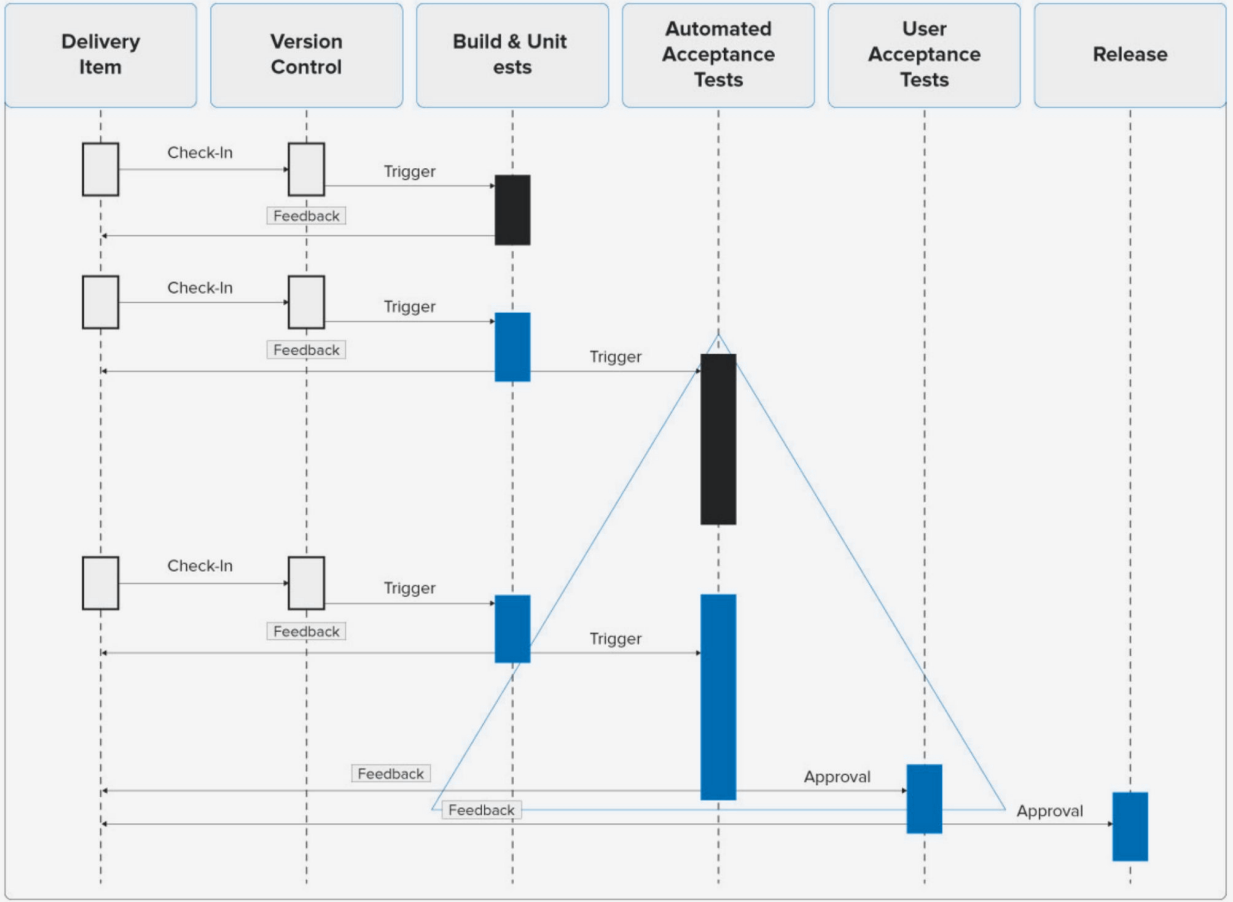
The QA Lifecycle



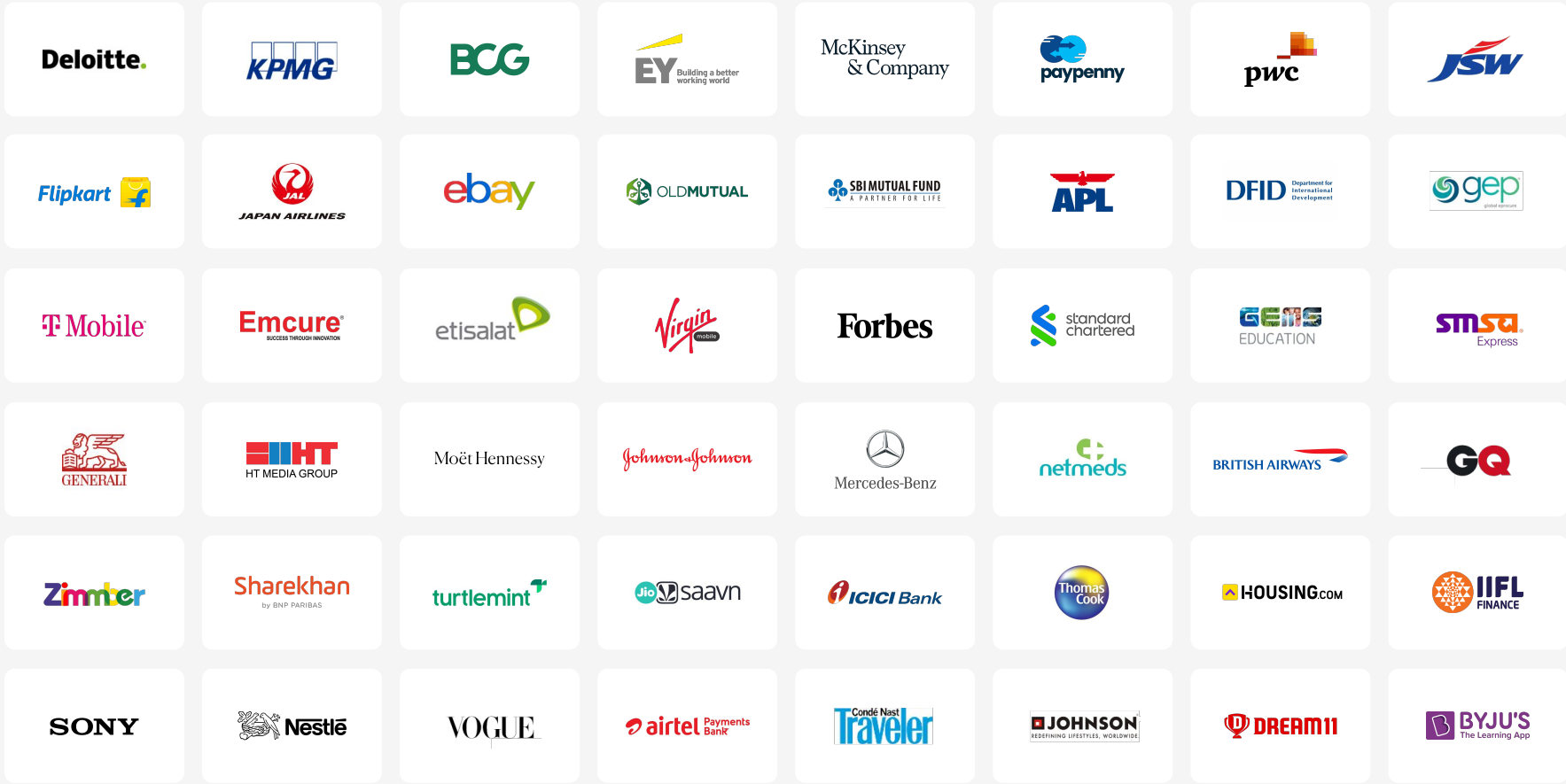
Multi-Stage Validation



Our Process


Delivery Item
Version Control
Build & Unit ests
Automated Acceptance Tests
User Acceptance Tests
Release
Check-In
Trigger
Feedback
Check-In
Trigger
Feedback
Trigger
Check-In
Trigger
Feedback
Trigger
Feedback
Approval
Feedback
Approval

Selected Clientele



Case Studies

A UK-based Global Telecom Giant

Provided a comprehensive automated testing solution for the cloud-based web platform.

Performance Testing | QA Documentation | Cloud Infrastructure Management | Functional Testing

Outcomes

80% Faster Data Processing

- Enabled the platform to process large data volumes faster than traditional methods, improving overall efficiency and decision-making speed.

4x Reduced Testing Costs

- Significantly reduced manual efforts, resulting in a substantial decrease in testing costs.

65% Enhanced System Scalability

- Ensured the platform could seamlessly scale with increasing data volumes without compromising performance.

Solutioning

Challenges

- Handling massive and growing amounts of data without compromising performance.
- Ensuring the testing framework can handle automated testing as the platform evolves.
- Integrating data from various unstructured sources such as social media, which requires real-time processing and cleaning.

Technical Spotlight

- Leveraged Amazon Redshift's columnar database structure for efficient data handling.
- Built automated testing scripts with Selenium and POM, reducing manual effort and ensuring consistent quality.
- Used Python scripts to handle unstructured data, integrating it with Spark for transformation and cleaning before processing.

Solution Highlights

- Optimized large-scale data handling, ensuring efficient data management and quick access as the user base grows.
- Reduced manual testing efforts, accelerated development, and maintained high-quality standards.
- Allowed for efficient handling of unstructured data, integrating it seamlessly into the data pipeline for further analysis.

Tech Stack

Selenium | Java | Spark | amazon REDSHIFT | kafka | Airflow | amazon EMR | amazon S3 | Scala

A Tech-driven Organization Developing Innovative Learning Solutions

Conducted comprehensive server-side API testing, code coverage, and load testing.

Performance Testing | QA Documentation | Scripting | Load Testing

Outcomes

3x Enhanced System Performance

- Reduced latency and ensured smoother operation under high-stress conditions, resulting in a more responsive application.

45% Increased Code Reliability

- Improved the stability and reliability of the application, reducing errors and system downtime.

70% Streamlined Testing Process

- Reduced manual intervention, accelerating the development cycle and ensuring consistent quality across releases.

Solutioning

Challenges

- Managing a high number of concurrent users while maintaining performance and stability.
- Ensuring that the codebase remains reliable and free from critical bugs as the system scales and updates.
- Simulating real-world scenarios to accurately test the application's performance and identify potential bottlenecks.

Technical Spotlight

- Utilized Go's built-in concurrency features for efficient resource management and request handling.
- Used Go's testing package and GoConvey for automated testing and code coverage.
- Leveraged Apache JMeter to simulate different user loads and stress test the application, identifying potential performance bottlenecks.

Solution Highlights

- Allowed the application to handle multiple requests concurrently, ensuring scalability and reducing response times.
- Ensured that the codebase remains robust and minimized the risk of introducing bugs.
- Optimized the platform for high quality performance under real-world conditions.

Tech Stack

Golang Vue.js APACHE JMeter™ GO goconvey

An Indian Financial Institution Offering Diverse Services

Implemented extensive unit testing with high coverage.

Automated Testing | Regression Testing | Bug Tracking | Test Coverage

Outcomes

90% Test Coverage

- Ensured high test coverage, improving code reliability and reducing bugs.

2x More Effective Bug Tracking

- Improved issue identification and resolution processes, ensuring higher software quality.

65% Better Code Deployment

- Facilitated smooth integration and deployment processes, ensuring real-time updates and quick bug fixes.

Solutioning

Challenges

- Achieving comprehensive test coverage for all aspects of the application, including edge cases.
- Coordinating test case execution and tracking issues across multiple team members.
- Ensuring a consistent user experience across iOS and Android platforms while managing separate codebases.

Technical Spotlight

- Adopted test-driven development (TDD) and integrated automated testing frameworks.
- Utilized Jira's issue tracking and project management features to organize and track test cases, bugs, and test results.
- Used React Native for shared codebase across iOS and Android, and React.js for web applications.

Solution Highlights

- Achieved comprehensive test coverage, catching bugs early in the development process and ensuring code reliability.
- Enhanced testing coordination and streamlined issue resolution, improving overall project management.
- Ensured a consistent user experience and reduced development time by leveraging a unified codebase for multiple platforms.

Tech Stack

Swift | React Native | Mac OS | React | Jira

An Advanced Digital Platform Innovating the Loan Market

Conducted comprehensive testing for a seamless user experience.

User Experience Testing | Regression Testing | End-to-End Testing | Automated Error Detection

Outcomes

100% Scalable Testing Solutions

- Implemented scalable testing frameworks to accommodate future growth and evolving platform requirements.

48% More Efficient Error Detection

- Automated testing processes identified and resolved errors quickly, minimizing disruptions and improving stability.

4x Improved Platform Performance

- Optimized code and advanced testing ensured high performance and reduced load times, enhancing overall user satisfaction.

Solutioning

Challenges

- Creating a robust automated testing framework that covers all critical functionality.
- Efficiently managing and synchronizing application state across various components.
- Identifying and fixing errors promptly to maintain platform stability and user satisfaction.

Technical Spotlight

- Employed the Cypress Testing Framework for comprehensive end-to-end testing.
- Implemented Redux Toolkit for efficient and scalable state management across the application.
- Integrated Cypress Testing Framework to automate error detection and ensure rapid resolution through continuous testing.

Solution Highlights

- Provided robust automated testing capabilities, leading to higher reliability and faster detection and resolution of issues.
- Streamlined state management, reducing complexity and improving synchronization across components.
- Facilitated effective error detection and quick fixes, enhancing platform stability and reducing downtime.

Tech Stack

JS Redux UNIX React cypress

A Bahrain-based Digital Bank Offering Efficient Modern Services

Carried out extensive testing and documentation to ensure application reliability.

Quality Assurance | QA Documentation | API Testing | Automated Testing

Outcomes

75% Improved Reliability

- Implemented microservices and rigorous JUnit testing, leading to increased system reliability and reduced downtime.

2x Better Documentation

- Comprehensive documentation and effective use of JIRA and Confluence facilitated better project management and communication.

60% Efficient Deployment

- Streamlined the deployment pipeline, enabling faster and more reliable releases.

Solutioning

Challenges

- Maintaining thorough and reliable API testing and up-to-date documentation.
- Effectively managing version control and collaborating on code with multiple developers.
- Managing and resolving bugs efficiently while keeping track of all issues.

Technical Spotlight

- Leveraged JUnit for testing APIs and Confluence for comprehensive documentation.
- Made use of Git to ensure version control and JIRA for effective project management.
- Utilized JIRA for comprehensive issue tracking and bug management.

Solution Highlights

- Provided automated testing to catch issues early and maintained documentation for clarity and ease of access.
- Facilitated efficient version control and collaboration, and managed tasks and tracked progress effectively.
- Allowed for efficient bug reporting, prioritization, and resolution, ensuring problems are addressed promptly and systematically.

Tech Stack

NoVA Ascend Dynamics
TRANSFORMING VISIONS, IGNITING GROWTH

CMMI Level 5

Leading by Passion. Driven by Innovation

4000+	22+	1500+	85%
Professionals	Industries	Clients	Client Retention

Thankyou

(571)554-6682

www.novaascenddynamics.com

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