Agenda

- Who are we
- Overview
- Monitoring and Observability
  - Pillars
- Testing
  - Type of Testing
- Analysis & Team Adoption
- Sorint’s Tailored Journey
  - Closer Look
  - Experts Involved
- Success Stories
- Bonus slide - Related by Sorintains
- Going Forward
17 Offices
3 Continents

EUROPE

USA
San Diego

AFRICA
Douala

Other Business Units
## Overview Facts

<table>
<thead>
<tr>
<th>900+ Tech-Savvy</th>
<th>+40000 Training hours per year</th>
<th>50+ Technical Circles</th>
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<tbody>
<tr>
<td>Cloud Engineers</td>
<td></td>
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<tr>
<td>SREs</td>
<td></td>
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<tr>
<td>DevOps Engineers</td>
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<tr>
<td>Full Stack Developers</td>
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</table>

### Methodology

<table>
<thead>
<tr>
<th>ISO 27001</th>
<th>ISO 20000</th>
<th>ISO 9001</th>
<th>ISO 14001</th>
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</table>

### PM Methodology

<table>
<thead>
<tr>
<th>Prince2</th>
<th>PMI</th>
<th>Agile</th>
<th>SCRUM/UX</th>
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### Market

<table>
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<tr>
<th>Finance &amp; Insurance, Utility &amp; Telco, Industry &amp; Services, Transport, Public Administration</th>
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### Other

<table>
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<tr>
<th>35+ Years of experience with a Startup mindset</th>
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<th>250+ Large Enterprise Customers</th>
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| 98% Customer Retention Rate |
Application Performance

- A service that aims to achieve the “peak performance” of a given software application.

- By employing techniques and focusing on the activities of:
  - Monitoring and observability
  - Testing
  - Analysis and team adoption

- to embracing software quality assurance

A combination of studies show that poor user experience will directly impact businesses’ conversion rate from 1% up to 11%. Beside customer’s dissatisfaction and other negative factors

According to various source/references
Addressing

- Responsiveness
- Scalability
- Reliability
- Resource utilization
- Overall user experience
Monitoring & Observability

Is knowing

- On Infrastructure (environment) and application level.

- Application Performance Monitoring (APM) and Observability techniques and tools facilitates the analysing of health, performance and the overall user experience of a given software.

- Monitoring is capturing and displaying data,

- while observability is understanding and evaluating the internal state by analysing
  - Logs
  - Metrics (gauge, delta metrics, cumulative)
  - Distributed tracing
Pillars of Monitoring & Observability

- Full-stack overview
- Centralized data
- Clarity. Data-driven
- Utilize resources on cloud/infrastructure
- Reduced MTTD & MTTR
- Real time monitoring of security
- Errors and configuration issues

For 12 consecutive years.
Dynatrace is the number one “Leader” in Gartner’s Magic Quadrant for Application Performance Monitoring and Observability tools.
Sorintains offering the service are certified experts.
*Gartner June 2022
Testing

Keystone to ensure the best user experience

- Functional and non-functional testing

- The process of evaluating a software code, application, or system to identify bugs, defects, or functional issues. Ensure project meets requirements.
# Types of Testing

Assess the functionality of a software in operation in various contexts. BE – FE – DB – Infra

<table>
<thead>
<tr>
<th>Types of Testing</th>
<th>Description</th>
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</thead>
<tbody>
<tr>
<td>Performance, resilience, and availability</td>
<td>Types of test that help ensure that the software performs optimally, is robust in handling failures, and remains available to users when needed.</td>
</tr>
<tr>
<td>End-To-End</td>
<td>Using simulated real data, the test focuses on verifying real-life scenarios that will then be executed by the end user, validating build stability and data integrity. The scripts can be repurposed and reused in regression testing.</td>
</tr>
<tr>
<td>Regression</td>
<td>Performed to validate that changes made have not introduced new defects or caused any regression in existing functionality. Involves retesting the previously tested features to ensure they still work correctly.</td>
</tr>
<tr>
<td>User acceptance (UAT)</td>
<td>Involves testing the software from the user's perspective to ensure that it fulfills the intended purpose and meets user/clients requirements.</td>
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</table>
Analysis & Team Adoption

How to approach

- **Assessment** of project team’s competencies, training, communication, and collaboration (flow and responsibilities).

- **Key factors:**
  - Methodologies
  - Inspections
  - Requirements definition service application/architecture
  - CI/CD, version control, branching strategy
  - Design, code reviews, & code quality
  - Testing strategy & testing environment
  - Test planning, case design, execution, analysis, reporting
  - Monitoring & observability techniques and tools
Sorint’s Tailored Journey
Embracing Software Quality Assurance

Application performance

Monitoring & Observability
Defect Tracking, management and continuous monitoring

Analysis & Team adoption
Defining Quality Standards
Requirement Analysis
Documentation and Reporting
Compliance and Standards

Testing
Test Planning
Test Execution
Sorint’s Tailored Journey

Know-how

Every journey is a unique challenge, but our know-how to the key aspects:

- **Clear Quality Objectives**
- **Well-defined QA Processes**
- **Skilled team**
- **Tools Knowledge**
- **Test coverage**
- **Test automation**
- **Metrics & Reporting**
- **Continuous improvement**
Sorint’s Tailored Journey

The make it model approach is instantiated from

- **Industries**: Nourished experience from huge variety of business sectors. At least 15
- **Adaptation**: Adapting to client and project's needs, technologies and context
- **Involvement**: Imparting knowledge, support and resources to help acquire the skills necessary
- **Automation**: A mechanism aiming to streamline operations
- **Meticulous compliance**: Extensive knowledge of “highly regulated” industries

**Agility**: Easy access to full-stack and cross functional expertise

Day x — Continues support — Continues support — Continues support — Day y
Experts Involved

- Application Performance
- DevArch
- NGMS
- CI/CD DevOps Engineering
- Other tech related circles

Senior masterminds

Luigi Savio
QA Test Engineer & Performance Manager | Dynatrace Specialist
+10 years of experience in sftw. testing & performance analysis. QA evangelist

Giorgio Cassia
QA Test Engineer Functional & Non-functional Specialist
+5 years of experience in developing & testing sftw.

Some prestigious certifications
## Closer Look

### Areas and field of focus

<table>
<thead>
<tr>
<th>Monitoring &amp; Observability</th>
<th>Testing</th>
<th>Analysis and Team Adoption</th>
<th>NGMS Support</th>
<th>All the journey</th>
</tr>
</thead>
<tbody>
<tr>
<td>Full stack, End-End monitoring.</td>
<td>Planning to execution and reporting</td>
<td>Proved analysis reports and advice on problem solving and required QA improvements.</td>
<td>Level 1 – 2 – 3 of support</td>
<td>Side by side with client’s team</td>
</tr>
<tr>
<td>From tools, configurating, reading outputs, consultation, to reporting and educating</td>
<td>Methodology of testing</td>
<td>Embrace QA culture and know-how</td>
<td>24x7 Service plans</td>
<td></td>
</tr>
<tr>
<td>Infrastructure, application, user experience and log</td>
<td>Testing Culture and know-how</td>
<td>Implement automation testing and custom framework testing</td>
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- Side by side with client’s team
Some Common Tools

- **Application monitoring & observability**
  - full stack (APM)
  - dynatrace, DATADOG, splunk, elastic, New Relic, VMware Tanzu, APPDYNAMICS

- **Performance test**
  - web performance, APACHE JMeter

- **End-to-End – Regression / Mobile**
  - cucumber, Katalon

- **Application monitoring open Source**
  - OpenTelemetry, Grafana, SigNoz, Skywalking

- **Resilience test**
Success stories

Delivered by: Sorintians

European Certification Authority and Digital Trust Leader

Automated End-To-End Testing

Challenge
Client’s requirement included:
• Introduce the concept of “testing application” in the enterprise.
• Introduce automated E2E testing to some software applications.

Going forward
Carried out regular assessment-based meeting to understand the environment and Client’s team skills.

Accepting the challenge - Solution and Implementation
In a proposal form. We divided the solution into three phases
• Phase 1: Details on the testing strategy, implementation + vendor selection
• Phase 2: Timing, Solution info, testing info, team involvement
• Phase 3: Details on the tool, how to create tests, methodology. Test source files

Result & delivery
• In total we delivered 13 file features. 120 Test cases.
• Integrated tests in CI pipelines.
• Client’s team involvement. Introduces and practice BDD methodology.
• Shared a hands-on experience and knowledge to client’s team in various projects.
• Project expanded to include application performance monitoring (APM) and Observability on more applications.

Floatingpoint.sorint.com
Success stories

Delivered by: Sorintians

A Leading Healthcare Provider in Italy

Monitoring Application Performance

Challenge

- Complete coverage of everything happening on app and infrastructure level.
- Identify optimal size of infrastructure’s resources and eliminate waste.
- Detect issues with calls to 3rd party services.
- Main activities happen on the core application. Impacts the quality of service and the operation-side of the hospital.
- Poor synergy with software vendor.

Going forward

Carried out regular assessment

Accepting the challenge - Solution and Implementation

In a proposal form. The solution proposed was divided into 4 phases:

- Titled as POC, Monitoring CUPS, Customization, Analysis.
- POC includes design for several units operating in the hospital.
- Monitoring CUPS which focused on the implementation of the backend replacement
- Customization user action, dashboard, availability test, session replay...
- Analysis and consultation on slowdowns, application exceptions/errors, slow or overly burdensome queries

Problems with 3rd party services.

Result & delivery

- No impacting problems recorded during Going live and now.
- Intelligent monitoring with full stack observability.
- Examples of issues detected are:
  - Error on request http 4xx / 5xx with stacktrace code level
  - User action slowdown related issues.
  - Performance trends. E.g. non optimized queries
  - Libraries/service subject to security vulnerability e.g. (logj4)

Floatingpoint.sorint.com
SSL – Shift Security Left
Technology Consulting Service

SSL promotes security as a common responsibility shared by all teams involved in software development. The service follows DevSecOps as a methodology.

NGMS
Core IT Services

Remotely manages IT infrastructures ensuring the correct functionality, support for vendor and Open Source products. Reducing response times to new problems. Speed, flexibility, method and technical preparation are part of our DNA.
Going Forward
How we can move forward from here

One hour workshop

Read more on /sorintlab

Alternative approach