Monitoring Strategy and Implementation Guide

1. Plan & Design the Monitoring Strategy

**What to Monitor:**

* Availability
* Performance
* Usage
* Exceptions
* Dependencies

**Where to Monitor:**

* Backend APIs
* Frontend applications
* Services

**Alerting Strategy:**

* Define who gets notified
* Specify notification triggers (errors, performance issues, failures)

**WOW: apim setup, pass the instrumental key to share log, centralized log management system, KQL, action group, alert matrix.**

3. Understanding App Insights Workspace

Azure Application Insights is an APM (Application Performance Management) tool that provides insights into:

* Application availability
* Performance bottlenecks
* Request/response times
* Exceptions and failures
* User behavior

App Insights Data Storage Models:

1. Classic Model: Data is stored in an Application Insights resource.
2. Workspace-Based Model: Data flows into a Log Analytics Workspace, enabling centralized logging and queries.

* Dependencies: Calls to external services.
* Performance Metrics: CPU, memory usage.
* Custom Events/Traces: User interactions, specific business events.

Telemetry: it simply means automatic data collection from your app, system, or device to monitor its behaviour and performance.

In the Azure or App Insights context, telemetry includes things like:

Requests: How many times people call your API or website.

Responses: How fast and successful your system responds.

Exceptions/Errors: Any crashes or bugs.

Dependencies: Calls to databases, APIs, or other services your app depends on.

Performance Metrics: CPU usage, memory, etc.

Custom Events/Traces: Anything extra you want to track (e.g., user clicks, specific business

processes).

Instrumental Key: The Instrumentation Key (also called iKey) in Azure DevOps is a unique identifier used to send telemetry data from your application to Azure Application Insights. It allows Application Insights to track and monitor application performance, errors, usage, and dependencies.

How it works?

Your app is instrumented (configured) to send telemetry data automatically to Application Insights (or another monitoring tool).

This data gives you real-time visibility into how your app behaves in production.