

## **LO2: Instrumentation of the code**

### Key Instrumentation Aspects

**Logging:** Record operational details like order processing, drone flight paths, system errors, and user interactions. Use log statements at critical points in the code, such as order receipt, dispatch, delivery, and any exceptions.

**Diagnostic Outputs:** Provide insights into the system's internal processes for debugging and analysis and include detailed diagnostic outputs in development and testing environments, which can be toggled on or off.

**Performance Metrics:** Track system performance indicators like response time and delivery validation accuracy, and measure and log performance metrics at various stages of the drone's operation.

**Error Tracking and Exception Handling:** Detect and record system errors or unusual occurrences and implement try-catch blocks and error logging mechanisms.

**Assert Statements:** Validate assumptions in the code during development and testing. Place assert statements at critical junctures to check the integrity of data and flow of operations.

**User Activity Monitoring:** Tracking interactions with the system for usability analysis. Log drone paths, such as order placement and status checks, along with timestamps.