Test Plan Document

Testing and monitoring are critical aspects of delivering a new system. In this task, you will identify which test types are relevant for each mobile application or analytical tool: unitary, performance, volume, regression, and/or user acceptance. If a test type is required, you will also identify the system environment in which the testing will take place and by which team. Lastly, you will document your rationale for your decision on test type requirement, system environment, and team.

Buying Events App, Supplier App

Document the test plan.

	Test type				
	Unit/unitary	**Performance**	**Volume**	**Regression**	**User acceptance**
Test type requirement	Required	Optional and recommended	Optional but not recommended	Required	Required
System environment	Development	Quality	---	Quality	Quality
Team	Project team	Project team or Both	---	Project team	Both
Rationale	*Note 1	*Note 2	*Note 3	*Note 4	*Note 5

***Note 1**: **Unit Testing:** Individual components and configurations are validated in the **development system** to ensure they work as expected. Only successful unit tests lead to deployment in a **test environment**, never directly in training or production.

***Note 2**: **Performance Testing:** Crucial for the new buying event app, this testing measures system responsiveness under concurrent user load and high transaction volumes**.** While implicitly part of UAT, dedicated performance tests use simulations and automation to confirm the app meets speed requirements.

***Note 3**: **Volume Testing:** This is not a primary concern for the buying event app, as it's designed to handle smaller data amounts.

***Note 4**: **Regression Testing:** Required because the new app integrates closely with and extends existing systems. This ensures new changes don't negatively impact established functionalities..

***Note 5**: **User Acceptance Testing (UAT):** Following successful unit testing, end-users perform UAT in a test environment (with support from the project team) to validate that the new programs and configurations meet business requirements, leveraging more extensive data and hardware resources than development..

Customer Engagement App

Document the test plan.

	Test type				
	Unit/unitary	**Performance**	**Volume**	**Regression**	**User acceptance**
Test type requirement	Required	Optional and recommended	Optional but not recommended	Required	Required
System environment	Development	Quality	---	Quality	Quality
Team	Project team	Project team or Both	---	Project team	Both
Rationale	*Note 1	*Note 2	*Note 3	*Note 4	*Note 5

Note 1: Unit testing occurs in the development system. Only successful unit tests are deployed to a test environment (e.g., Quality). Testing is not performed in training or production.

Note 2: Performance is critical for this customer-facing sales app. While UAT implicitly checks performance, dedicated tests involving concurrent user simulations and automation are essential.

Note 3: This app does not involve large data volumes.

Note 4: As this app extends existing functionality and feeds into other systems, regression testing is required.

Note 5: After unit testing, new programs and configurations are moved to a test environment for end-user acceptance testing (UAT). This environment, with more resources, allows for comprehensive validation of configurations.

Sales Data Analysis

Document the test plan.

	Test type				
	Unit/unitary	**Performance**	**Volume**	**Regression**	**User acceptance**
Test type requirement	Required	Optional but not recommended	Optional but not recommended	Not required	Required
System environment	Development	---	---	---	Quality
Team	Project team	---	---	---	Both
Rationale	*Note 1	*Note 2	*Note 3	*Note 4	*Note 5

Note 1: Unit testing takes place in the development system to confirm expected results. Successful functions are then deployed to a test environment (e.g., Quality), but never to training or production.

Note 2: This application has no stated performance requirements or KPIs, suggesting no expected performance issues.

Note 3: This application does not involve large amounts of data.

Note 4: Since no existing functions are changed and human review is involved, regression testing is not strictly required. Old functions remain available for quality checks of the new analytical planning tools.

Note 5: After unit testing, new programs and configurations move to a test environment for end-user acceptance testing (UAT). This environment offers more resources for comprehensive validation of unit-tested or existing configurations.

Operational Data Analysis

Document the test plan.

	Test type				
	Unit/unitary	**Performance**	**Volume**	**Regression**	**User acceptance**
Test type requirement	Required	Optional but not recommended	Optional but not recommended	Not required	Required
System environment	Development	---	---	---	Quality
Team	Project team	---	---	---	Both
Rationale	*Note 1	*Note 2	*Note 3	*Note 4	*Note 5

Note 1: Unit testing confirms expected results in the development system. Successful functions are then deployed to a test environment (e.g., Quality), but never to training or production.

Note 2: This application has no stated performance requirements or KPIs, so performance issues aren't anticipated.

Note 3: This application doesn't involve large amounts of data.

Note 4: Regression testing isn't strictly needed as no existing functions are changed, output requires human review, and old functions remain for quality checks of the new analytical planning tools.

Note 5: After unit testing, new programs and configurations are moved to a test environment for User Acceptance Testing (UAT) by end-users. This environment offers more resources for validating unit-tested or existing configurations.

Asset Condition Monitoring, predicting mill equipment failures

Document the test plan.

	Test type				
	Unit/unitary	**Performance**	**Volume**	**Regression**	**User acceptance**
Test type requirement	Required	Optional but not recommended	Optional but not recommended	Not required	Required
System environment	Development	---	---	---	Quality
Team	Project team	---	---	---	Both
Rationale	*Note 1	*Note 2	*Note 3	*Note 4	*Note 5

Note 1: Unit testing ensures expected results in the development system. Successful functions are then deployed to a test environment (e.g., Quality); testing is never done in training or production.

Note 2: This application has no stated performance requirements or KPIs, so performance issues aren't anticipated.

Note 3: This application does not involve large amounts of data.

Note 4: Regression testing isn't strictly needed as no existing functions are changed, output requires human review, and old functions remain available for quality checks of new analytical planning tools.

Note 5: After unit testing, new programs and configurations are moved to a test environment for User Acceptance Testing (UAT) by end-users, leveraging more resources for comprehensive validation.

Resource Optimization Reports

Document the test plan.

	Test type				
	Unit/unitary	**Performance**	**Volume**	**Regression**	**User acceptance**
Test type requirement	Required	Optional but not recommended	Optional but not recommended	Not required	Required
System environment	Development	---	---	---	Quality
Team	Project team	---	---	---	Both
Rationale	*Note 1	*Note 2	*Note 3	*Note 4	*Note 5

Note 1: Unit testing ensures expected results in the development system. Successful functions are then deployed to a test environment (like Quality); we never test in training or production systems.

Note 2: This application has no stated performance requirements or KPIs, so we don't anticipate performance issues.

Note 3: This application doesn't involve large amounts of data.

Note 4: Regression testing isn't strictly needed here since no existing functions are changed, output requires human review, and old functions remain available for quality checks of new analytical planning tools.

Note 5: After unit testing, new programs and configurations move to a test environment for User Acceptance Testing (UAT) by end-users, leveraging that environment's greater resources for comprehensive validation.