**Software development process of web, desktop and mobile application software during all phases of Konza Technopolis Development Authority Software development life cycle.**

1. **Requirements gathering and Analysis**

Step 1: Analyze stakeholder requirements documents

Step 2: Specify additional requirements-incomplete or uncovered requirements

Step 3: Collect feedback on requirements from all parties concerned

Step 4: Perform a technical review; **Output-Software Requirements Specification Document (SRSD)**

Step 5: Initiate and plan the software development-identify roles and responsibilities

* Nominate the Software Project Manager
* Nominate the Software team members
* Generate the Software Development Plan
* Perform the continuous project planning and tracking activities; **Template Required-koTDA Action Item List**

Step 6: Initiate and plan the software configuration Management**; output-Software Development plan** doc

* Nominate a Software Configuration Manager
* Generate the Software Configuration Management Plan
* Setup the Configuration Management spaces
* Perform the continuous Configuration Management activities

Step 7: Establish the software test plan (Software unit test, integration test and validation test)

Step 8: Initiate and plan the software quality assurance

* Nominate the Software Quality Assurance Engineer
* Generate the Software Quality Assurance Plan
* Perform the continuous QA activities

Step 9: Perform a technical review on the software planning; **Template Required- koTDA Software Review Checklist**

Step 10: Perform S1 Management Review

**Milestone S1**

1. **Software Design**

Step 1: Generate the Software Design Document (A detailed description of interfaces and functionalities) using the SRSD developed as input

Template Required-**koTDA Software Design Description Document**

Step 2: Generate the prototype source code

Step 3: Update the software test plan

Step 4: Perform a technical review of the software design

1. **Coding**

Step 1: Define programming guidelines and naming conventions

Step 2: Perform Software source code implementation and refactoring complying with the implementation rules

Step 3: Perform a technical Review on the Software Source Code; Method-Use the koTDA software Review checklist

1. **Testing**

Step 1: Define the Static Tests and document them in the Software Unit Test Specification

Step 2: Define the Dynamic Tests and document them in the Software Unit Test Specification

Step 3: Perform a technical Review on the Software Unit Test specification

Step 4: Prepare and perform the software unit tests

* Perform the static unit tests
* Perform the dynamic unit tests

Step 5: Generate a **Software unit Test Report** as output

Step 6: Perform S2 Management Review

**Milestone S2**

1. **Verification and validation**

Step 1: Generate the Software Integration and Validation Test Specification

Step 2: Generate a Software Integration Test Specification Document; **Template Required-koTDA Software Integration Test Specification Document**

Step 3: Perform a technical Review on the Software Integration Test Specification; Method- koTDA Software Review Checklist Template

Step 4: Perform the Software Integration and validation Tests

Step 5: Generate a **Software Integration** **Test Report** as output

Step 6: Problem Resolution Meeting

* Discuss and plan the bug fixes

Step 7: Generate the Software Integration and Validation Test Specification

Step 8: Perform a technical Review on the Software Integration Test Specification

Step 9: Prepare and perform the Software validation Tests

Step 10: Generate **Software Validation** **Test Report** as output; **Template Required-koTDA Software Validation Test Report Document**

Step 11: Problem Resolution Meeting

* Discuss and plan the bug fixes

Step 12: Perform S3 Management Review

**Milestone S3**

1. **Software Release and Sign Off**

Output: **Software Release Form**

**Template Required: koTDA Software Release Form**

**Change Request**