TEST PLAN FOR

CODECOOL JIRA

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Revision and Signoff Sheet

Document History

Version	Date	Author	Description of Change
1	9/27/2021	Bali	Draft - Reviewed
2	9/27/2021	Ozi	Draft - Reviewed
3	9/27/2021	Csabi	Draft - Reviewed

Approvers List

Name	Role	Approver / Reviewer	Approval / Review Date
Réka	**Product Owner**		
Bali	**Reviewer**		
Csabi	**Business Analyst**		
Ozi	**Reviewer**		

Reference Documents

Version	Date	Document Name
1.0	27-09-2021	Requirements for Design tests for JIRA project https://docs.google.com/spreadsheets/d/1JWopnXGMzAxOxlfMvFKYYFxwOVLuO9UZKVRlmg0MojY/edit#gid=0
	27-09-2021	Get Started with JIRA Software https://www.atlassian.com/software/JIRA/guides/getting-started/basics#step-4-create-an-issue

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1. INTRODUCTION

1.1. Purpose

This test plan describes the testing approach and overall framework that will drive the testing of the **Design tests for JIRA**. The document introduces:

- Test Strategy: rules the test will be based on, including the givens of the project (e.g.: start/end dates, objectives, assumptions); description of the process to set up a valid test (e.g.: entry/exit criteria, creation of test cases, specific tasks to perform, scheduling, data strategy).
- Execution Strategy: describes how the test will be performed and process to identify and report defects, and to fix and implement fixes.
- Test Management: process to handle the logistics of the test and all the events that come up during execution (e.g.: communications, escalation procedures, risk, and mitigation, team roster)

1.2. Project Overview

JIRA is a powerful tool providing employees of the company with the ability to view relevant information such as personal information and updating personal information with an internet-enabled PC without having to involve the HR department.

The functionality of this module spans through the entire system, making information available anywhere, anytime. All information is subject to the company's defined security policy, where he/she can only view the information he/she is authorized to. An ESS-User can only edit certain fields in the ESS Module, maintaining the security and confidentiality of employee information

1.3. Audience

- Project team members perform tasks specified in this document and provide input and recommendations on this document.
- Project Manager Plans for the testing activities in the overall project schedule reviews the document, tracks the performance of the test according to the task herein specified, approves the document and is accountable for the results.
- The stakeholders' representatives and participants (individuals as identified by the PMO Leads) may take part in the UAT test to ensure the business is aligned with the results of the test.
- Technical Team ensures that the test plan and deliverables are in line with the design, provides the environment for testing and follows the procedures related to the fixes of defects.
- Business analysts will provide their inputs on functional changes.

2. TEST STRATEGY

2.1. Test Objectives

The objective of the test is to verify that the functionality of Browse Projects, Create issue, Edit issue works according to the specifications.

The test will execute and verify the test scripts, identify, fix and retest all high and medium severity defects per the entrance criteria, prioritize lower severity defects for future fixing via CR.

The final product of the test is twofold:

- A production-ready software;
- A set of stable test scripts that can be reused for Functional and UAT test execution.

2.2. Test Assumptions

Key Assumptions

- Production like data required and be available in the system prior to start of Functional Testing
- In each testing phase, Cycle 3 will be initiated if the defect rate is high in Cycle 2.

General

- Exploratory Testing would be carried out once the build is ready for testing
- Performance testing is not considered for this estimation.
- All the defects would come along with a snapshot JPEG format
- The Test Team will be provided with access to Test environment via VPN connectivity
- The Test Team assumes all necessary inputs required during Test design and execution will be supported by Development/BUSINESS ANALYSTs appropriately.
- Test case design activities will be performed by QA Group
- Test environment and preparation activities will be owned by Dev Team
- Dev team will provide Defect fix plans based on the Defect meetings during each cycle to plan. The same will be informed to Test team prior to start of Defect fix cycles
- BUSINESS ANALYST will review and sign-off all Test cases prepared by Test Team prior to start of Test execution
- The defects will be tracked through JIRA and Zephyr Scale only. Any defect fixes planned will be shared with Test Team prior to applying the fixes on the Test environment
- Project Manager/BUSINESS ANALYST will review and sign-off all test deliverables
- The project will provide test planning, test design and test execution support
- Test team will manage the testing effort with close coordination with Project PM/BUSINESS ANALYST
- Project team has the knowledge and experience necessary, or has received adequate training in the system, the project and the testing processes.
- There is no environment downtime during test due to outages or defect fixes.

- The system will be treated as a black box; if the information shows correctly online and in the reports, it will be assumed that the database is working properly.
- Cycle 3 will be initiated if there are more defects in Cycle 2.

Functional Testing

- During Functional testing, testing team will use preloaded data which is available on the system at the time of execution
- The Test Team will be perform Functional testing only on JIRA

UAT

- UAT test execution will be performed by end users (L1, L2, and L3) and QA Group will provide their support on creating UAT script.

2.3. Test Principles

- Testing will be focused on meeting the business objectives, cost efficiency, and quality.
- There will be common, consistent procedures for all teams supporting testing activities.
- Testing processes will be well defined, yet flexible, with the ability to change as needed.
- Testing activities will build upon previous stages to avoid redundancy or duplication of effort.
- Testing environment and data will emulate a production environment as much as possible.
- Testing will be a repeatable, quantifiable, and measurable activity.
- Testing will be divided into distinct phases, each with clearly defined objectives and goals.
- There will be entrance and exit criteria.

2.4. Data Approach

- In functional testing, Codecool JIRA will contain pre-loaded test data and which is used for testing activities.

2.5. Scope and Levels of Testing

2.5.1. Exploratory

PURPOSE: the purpose of this test is to make sure critical defects are removed before the next levels of testing can start.

SCOPE: Issue management by user and project browsing functionalities

TESTERS: Testing team.

METHOD: this user acceptance testing is carried out in the application with test cases, test scripts discover different types of issues, defect management matrix and other.

TIMING: at the beginning of each cycle.

2.5.2. System Test

PURPOSE: System testing will be performed to validate the functions of application. The system testing is carried out by feeding the input and validates the output from the application.

SCOPE: The below excel sheet details about the scope of System test. Note: The scope is high level due to changes in the requirement.

TESTERS: Testing Team.

METHOD: The test will be performed according to test scripts, which are stored in Jurassic Project's Zephyr Scale Folders.

TIMING: 1 week sprint after exploratory testing completed

ENTRY CRITERIA

1. Approved Functional Specification document, Use case documents must be available prior to start of Test design phase.
2. Test cases approved and signed-off prior to start of Test execution
3. Development completed, unit tested with pass status and results shared to Testing team to avoid duplicate defects
4. Test environment with application installed, configured and ready to use state

Sign-off	Readiness
•Approved Functional Specification Document •Approved Use cases •Approved Test cases	•Development completed & unit tested •Application deployed and system ready for testing on Test environment •Production like data is available to test all functionalities. •Defect fixes planned based on Defect triage (Unit Testing) and evaluation criteria

TEST DELIVERABLES

S.No.	Deliverable Name	Author	Reviewer
1.	Test Plan	Test Lead	Project Manager/ Business Analyst's
2.	Functional Test Cases	Test Team	Business Analyst's Sign off
3.	Logging Defects in JIRA	Test Team	Test Lead/ Programming Lead(Vijay)
4.	Daily/weekly status report	Test Team/ Test Lead	Test Lead/ Project Manager
5.	Test Closure report	Test Lead	Project Manager

2.5.3. User Acceptance Test (UAT)

PURPOSE: this test focuses on validating the business logic. It allows the end users to complete one final review of the system prior to deployment.

TESTERS: the UAT is performed by the end users (L1, L2 and L3).

METHOD: Since the business users are the most indicated to provide input around business needs and how the system adapts to them, it may happen that the users do some validation not contained in the scripts. Test team write the UAT test cases based on the inputs from End user (L1,L2 and L3 users) and Business Analyst's.

TIMING: After all other levels of testing (Exploratory and Functional) are done. Only after this test is completed the product can be released to production.

TEST DELIVERABLES

S.No.	Deliverable Name	Author	Reviewer
1.	UAT Test Cases	Test Team	Business Analyst's Sign off

2.6. Test Effort Estimate

Task	Time
Read Specification	2 days
Identify functions to test	1 day
Define test conditions	1 day
Write test cases and scripts	5 day
Total	9 days

3. EXECUTION STRATEGY

3.1. Entry and Exit Criteria

- The entry criteria refer to the desirable conditions in order to start test execution; only the migration of the code and fixes need to be assessed at the end of each cycle.
- The exit criteria are the desirable conditions that need to be met in order proceed with the implementation.
- Entry and exit criteria are flexible benchmarks. If they are not met, the test team will assess the risk, identify mitigation actions and provide a recommendation. All this is input to the project manager for a final “go-no go” decision.
- Entry criteria to start the execution phase of the test: the activities listed in the Test Planning section of the schedule are 100% completed.
- Entry criteria to start each cycle: the activities listed in the Test Execution section of the schedule are 100% completed at each cycle.

Exit Criteria	Test Team	Technical Team	Notes
100% Test Scripts executed			
95% pass rate of Test Scripts			
No open Critical and High severity defects			
95% of Medium severity defects have been closed			
All remaining defects are either canceled or documented as Change Requests for a future release			
All expected and actual results are captured and documented with the test script			
All test metrics collected based on reports from JIRA and Zephyr Scale			
All defects logged in JIRA			
Test Closure Memo completed and signed off			
Test environment cleanup completed and a new backup of the environment			

3.2. Test Cycles

- There will be two cycles for functional testing. Each cycle will execute all the scripts.
- The objective of the first cycle is to identify any blocking, critical defects, and most of the high defects. It is expected to use some work-around in order to get to all the scripts.
- The objective of the second cycle is to identify remaining high and medium defects, remove the work-around from the first cycle, correct gaps in the scripts, and obtain performance results.
- UAT test will consist of one cycle.

3.3. Validation and Defect Management

- It is expected that the testers execute all the scripts in each of the cycles described above. However it is recognized that the testers could also do additional testing if they identify a possible gap in the scripts. This is especially relevant in the second cycle, when the Business analyst's join the TCOE in the execution of the test, since the BUSINESS ANALYSTs have a deeper knowledge of the business processes. If a gap is identified, the scripts and traceability matrix will be updated and then a defect logged against the scripts.
- The defects will be tracked through JIRA and Zephyr Scale only. The technical team will gather information on a daily basis from JIRA and Zephyr Scale, and request additional details from the Defect Coordinator. The technical team will work on fixes.
- It is the responsibility of the tester to open the defects, link them to the corresponding script, assign an initial severity and status, retest and close the defect; it is the responsibility of the Defect Manager to review the severity of the defects and facilitate with the technical team the fix and its implementation, communicate with testers when the test can continue or should be halt, request the tester to retest, and modify status as the defect progresses through the cycle; it is the responsibility of the technical team to review JIRA and Zephyr Scale on a daily basis, ask for details if necessary, fix the defect, communicate to the Defect Manager the fix is done, implement the solution per the Defect Manager request.

Defects found during the Testing will be categorized according to the bug-reporting tool **"Mercury JIRA and Zephyr Scale"** and the categories are:

Severity	Impact
1 (Critical)	▪ This bug is critical enough to crash the system, cause file corruption, or cause potential data loss ▪ It causes an abnormal return to the operating system (crash or a system failure message appears). ▪ It causes the application to hang and requires re-booting the system.
2 (High)	▪ It causes a lack of vital program functionality with workaround.
3 (Medium)	▪ This Bug will degrade the quality of the System. However there is an intelligent workaround for achieving the desired functionality - for example through another screen. ▪ This bug prevents other areas of the product from being tested. However other areas can be independently tested.
4 (Low)	▪ There is an insufficient or unclear error message, which has minimum impact on product use.
5(Cosmetic)	▪ There is an insufficient or unclear error message that has no impact on product use.

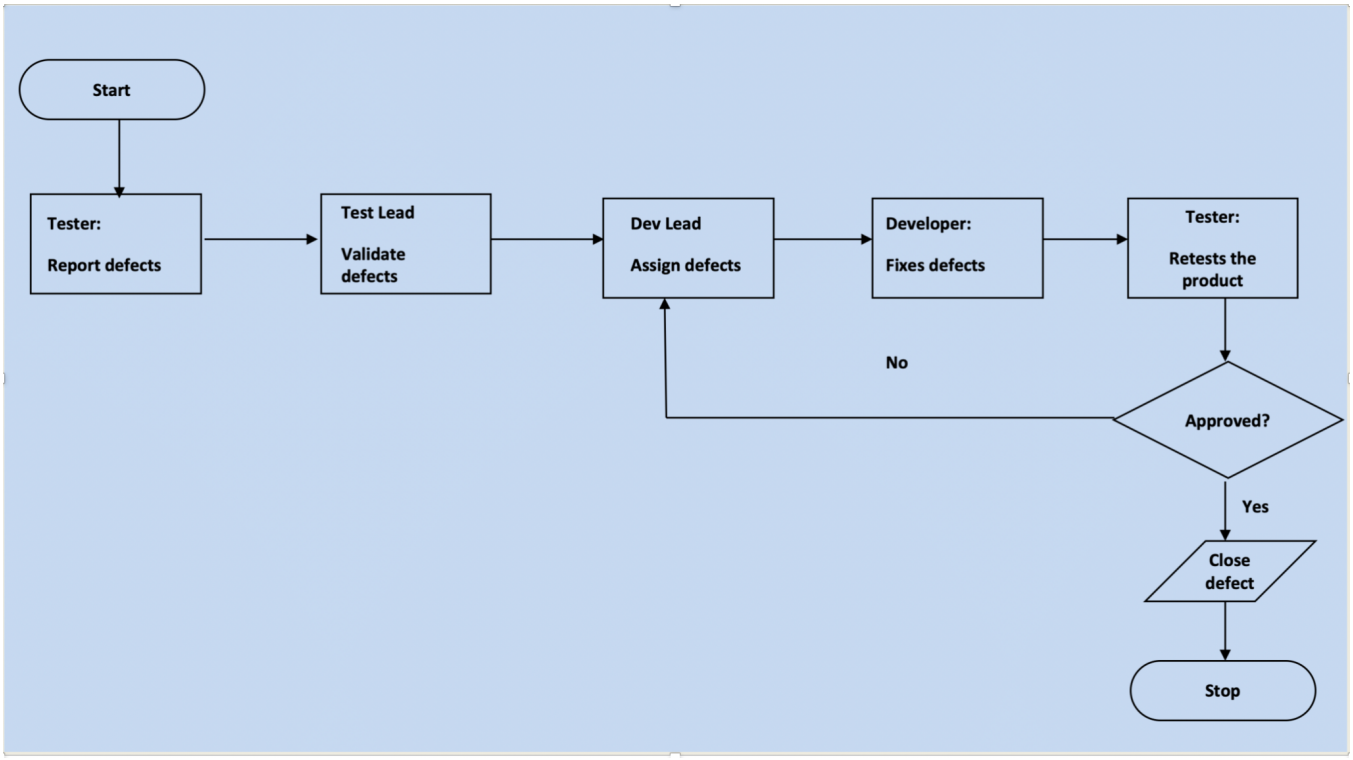
3.4. Test Metrics

Test metrics to measure the progress and level of success of the test will be developed and shared with the project manager for approval. The below are some of the metrics

Report	Description	Frequency
Test preparation & Execution Status	To report on % complete, %WIP, % Pass, % Fail Defects severity wise Status – Open, closed, any other Status	Weekly / Daily (optional)
Daily execution status	To report on Pass, Fail, Total defects, highlight Showstopper/ Critical defects	Daily
Project Weekly Status report	Project driven reporting (As requested by PM)	Weekly – If project team needs weekly update apart from daily and there is template available with project team to use.

3.5. Defect tracking & Reporting

Following flowchart depicts Defect Tracking Process:



4. TEST MANAGEMENT PROCESS

4.1. Test Management Tool

JIRA and Zephyr Scale are the tools used for Test Management. All testing artifacts such as Test cases, test results are updated in Zephyr Scale, JIRA and RequirementsTraceabilityMatrix spreadsheet.

- Project specific folder structure will be created in Zephyr Scale to manage the status of this project.
- Each resource in the Testing team will be provided with Read/Write access to add/modify Test cases in Zephyr Scale.
- During the Test Design phase, all test cases are written directly into Zephyr Scale. Any change to the test case will be directly updated in the Zephyr Scale.

- Each Tester will directly access their respective assigned test cases and update the status of each executed step in Zephyr Scale and JIRA directly.
- Any defect encountered will be raised in JIRA linking to the particular Test case/test step.
- During Defect fix testing, defects are re-assigned back to the tester to verify the defect fix. The tester verifies the defect fix and updates the status directly in JIRA and Zephyr Sclae.
- Various reports can be generated from Zephr Scale to provide status of Test execution. For example, Status report of Test cases executed, Passed, Failed, No. of open defects, Severity wise defects etc.

4.2. Test Design Process

- The tester will understand each requirement and prepare corresponding test case to ensure all requirements are covered.
- Each Test case will be mapped to Use cases to Requirements as part of Traceability matrix.
- Each of the Test cases will undergo review by the BUSINESS ANALYST and the review defects are captured and shared to the Test team. The testers will rework on the review defects and finally obtain approval and sign-off.
- During the preparation phase, tester will use the prototype, use case and functional specification to write step by step test cases.
- Testers will maintain a clarification Tracker sheet and same will be shared periodically with the Requirements team and accordingly the test case will be updated. The clarifications may sometimes lead to Change Requests or not in scope or detailing implicit requirements.
- Sign-off for the test cases would be communicates through mail by Business Analyst's.
- Any subsequent changes to the test case if any will be directly updated in **JIRA and Zephyr Scale.**

4.3. Test Execution Process

- Once all Test cases are approved and the test environment is ready for testing, tester will start a exploratory test of the application to ensure the application is stable for testing.
- Each Tester is assigned Test cases directly in JIRA and Zephyr Scale
- Testers to ensure necessary access to the testing environment, JIRA and Zephyr Scale for updating test status and raise defects. If any issues, will be escalated to the Test Lead and in turn to the Project Manager as escalation.
- If any showstopper during exploratory testing will be escalated to the respective development SPOCs for fixes.
- Each tester performs step by step execution and updates the executions status. The tester enters Pass or Fail Status for each of the step directly in JIRA and Zephyr Scale.
- Tester will prepare a Run chart with day-wise execution details
- If any failures, defect will be raised as per severity guidelines in JIRA and Zephyr Scale tool detailing steps to simulate along with screenshots if appropriate.
- Daily Test execution status as well as Defect status will be reported to all stakeholders.
- Testing team will participate in defect triage meetings in order to ensure all test cases are executed with either pass/fail category.
- If there are any defects that are not part of steps but could be outside the test steps, such defects need to be captured in JIRA and Zephyr Scale and map it against the test case level or at the specific step that issue was encountered after confirming with Test Lead.
- This process is repeated until all test cases are executed fully with Pass/Fail status.
- During the subsequent cycle, any defects fixed applied will be tested and results will be updated in Zephyr Scale during the cycle.

As per Process, final sign-off or project completion process will be followed

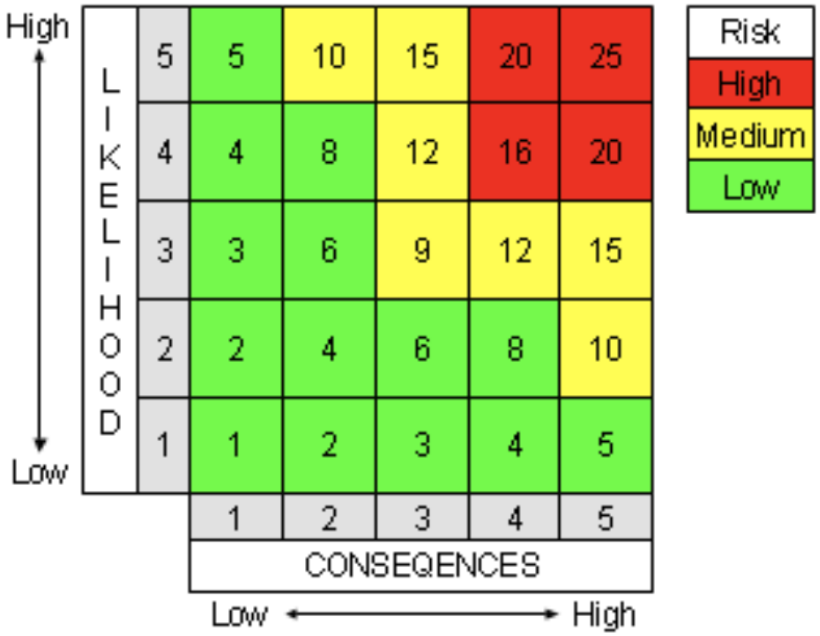
4.4. Test Risks and Mitigation Factors

Risk	Prob.	Impact	Mitigation Plan
SCHEDULE Testing schedule is tight. If the start of the testing is delayed due to design tasks, the test cannot be extended beyond the UAT scheduled start date.	High	High	• The testing team can control the preparation tasks (in advance) and the early communication with involved parties. • Some buffer has been added to the schedule for contingencies, although not as much as best practices advise.
RESOURCES Not enough resources, resources on boarding too late (process takes around 15 days.	Medium	High	Holidays and vacation have been estimated and built into the schedule; deviations from the estimation could derive in delays in the testing.
DEFECTS Defects are found at a late stage of the cycle or at a late cycle; defects discovered late are most likely be due to unclear specifications and are time consuming to resolve.	Medium	High	Defect management plan is in place to ensure prompt communication and fixing of issues.
SCOPE Scope completely defined	Medium	Medium	Scope is well defined but the changes are in the functionality are not yet finalized or keep on changing.
Natural disasters	Low	Medium	Teams and responsibilities have been spread to two different geographic areas. In a catastrophic event in one of the areas, there will resources in the other areas needed to continue (although at a slower pace) the testing activities.
Non-availability of Independent Test environment and accessibility	Medium	High	Due to non availability of the environment, the schedule gets impacted and will lead to delayed start of Test execution.
Delayed Testing Due To new Issues	Medium	High	During testing, there is a good chance that some “new” defects may be identified and may become an issue that will take time to resolve. There are defects that can be raised during testing because of unclear document specification. These defects can yield to an issue that will need time to be resolved. If these issues become showstoppers, it will greatly impact on the overall project schedule. If new defects are discovered, the defect management and issue management

			procedures are in place to immediately provide a resolution.

4.5. Risk Assessment Matrix

Function/Risk	Likelihood of Failure	Reasons	Impact of Failure	Reasons	Overall Risk Assessment
Login	**5**	Human Error Complicated system	**5**	Loss of confidence	**25**
Logout	**5**	Human Error Complicated system	**5**	Loss of confidence Security failure	**25**
Browse projects	**5**	Complicated system Size of database	**3**	Traceability problems, High project risk	**15**
Create issue	**5**	Human error Complicated system	**5**	Project failure Product failure	**25**
Browse issue	**4**	Human Error Size of database	**3**	Traceability problems	**12**
Edit issue	**4**	Human Error Complicated system (software error) The number of interactions is high	**5**	Project failure, Product Failure	**20**



6. ROLES AND RESPONSIBILITIES

6.1 Role Expectations

The following list defines in general terms the expectations related to the roles directly involved in the management, planning or execution of the test for the project.

	Roles	Name	Contact Info
1.	Project Manager	Réka	
2.	Test Lead	Bali	
3.	Business Analyst	Csabi	
4.	Development Lead	Bali	
5.	Testing Team	Ozi	
6.	Development Team	Csabi	
7.	Technical Lead	Ozi	

6.1.1 Project Management

- Project Manager: reviews the content of the Test Plan, Test Strategy and Test Estimates signs off on it.

6.1.2 Test Planning (Test Lead)

- Ensure entrance criteria are used as input before start the execution.
- Develop test plan and the guidelines to create test conditions, test cases, expected results and execution scripts.
- Provide guidelines on how to manage defects.
- Attend status meetings in person or via the conference call line.
- Communicate to the test team any changes that need to be made to the test deliverables or application and when they will be completed.
- Provide on premise or telecommute support.
- Provide functional (Business Analysts) and technical team to test team personnel (if needed).

6.1.3 Test Team

- Develop test conditions, test cases, expected results, and execution scripts.
- Perform execution and validation.
- Identify, document and prioritize defects according to the guidance provided by the Test lead.
- Re-test after software modifications have been made according to the schedule.
- Prepare testing metrics and provide regular status.

6.1.3 Test Lead

- Acknowledge the completion of a section within a cycle.
- Give the OK to start next level of testing.
- Facilitate defect communications between testing team and technical / development team.

6.1.4 Development Team

- Review testing deliverables (test plan, cases, scripts, expected results, etc.) and provide timely feedback.
- Assist in the validation of results (if requested).
- Support the development and testing processes being used to support the project.
- Certify correct components have been delivered to the test environment at the points specified in the testing schedule.
- Keep project team and leadership informed of potential software delivery date slips based on the current schedule.

- Define processes/tools to facilitate the initial and ongoing migration of components.
- Conduct first line investigation into execution discrepancies and assist test executors in creation of accurate defects.
- Implement fixes to defects according to schedule.

7. TEST ENVIRONMENT

Codecool JIRA will be hosted at https://JIRA-manual.codecool.metastage.net company's site.

A windows environment with Internet Explorer 8, 9 and 10, and with Firefox 27.0, as well as Google Chrome 32.0 and later should be available to each tester.

8. APPROVALS

The Names and Titles of all persons who must approve this plan.

Signature:	
Name:	
Role:	
Date:	

Signature:	
Name:	
Role:	
Date:	