Let’s Quiz

Elaboration Iteration 3 (5)

[Note: Text enclosed in square brackets and displayed in blue italics (style=InfoBlue) is included to provide guidance to the author and should be deleted before publishing the document.]

# 1. Key milestones

|  |  |
| --- | --- |
| **Milestone** | **Date** |
| Iteration start | 7-05-18 |
| Architecture, Vision, Requirement Model & Project Plan documents submitted for review | 13-05-18 |
| Reviewer to return marked documents | 15/05/18 |
| Have working program for the CCRD | 20-05-18 |
| Resubmit Architecture, Vision, Requirement Model & Project Plan documents submitted for review | 20-05-18 |
| Iteration stop | 21-05-18 |

# 2. High-level objectives

1. Have major documents drafted, reviewed and changes made to meet reviewer’s critics

2. Working game capable of executing the CCRD

3. Begin writing and executing user acceptance tests

# 3. Evaluation criteria

1.1 Vision Document

* All DI criteria as specified in LCOM Vision criteria.
  + Business case is clearly addressed in non-technical terms and captures the business value of the proposed system.
  + Justifies the proposed system specifically in business terms.
  + Most stakeholders and their interests clearly and specifically identified and defined.
  + Business needs clearly expressed in business terms.
  + Functional requirements clearly identified and described in business terms.
  + Functional requirements clearly related to business needs.
  + Features specifically detail software characteristics that support business needs
  + Most important non-functional requirements clearly identified and justified against business needs.
* The Vision has been updated to reflect **most** changes in project scope.
* The vision is mostly consistent with the revised requirement model.
* There is a change log that records specific changes that have been made.
* The Vision reflects most lessons learned and the outcomes of most risk mitigation strategies that have been enacted.

1.2 Requirement Model

* DI criteria as specified in LCOM Requirement Model criteria.
  + Almost completely correct concept of ‘end-goal’ and ‘sub-function use cases demonstrated.
  + All critical and significant use cases identified and correctly named.
  + Almost all external actors identified, including external systems and events.
  + Almost completely correct use of <<includes>> and <<extends>> relationships.
  + Completely correct UML syntax.
  + Short use case descriptions provided for all identified use cases.
  + Use cases mostly consistent with needs and features as expressed in Vision
  + Almost completely correct concept of domain objects demonstrated.
  + Nearly all critical and significant domain objects identified
  + Relationships between domain objects correct.
  + Almost completely correct concept of inheritance and aggregation/composition shown (if appropriate)
  + No application concepts such as databases or user interfaces present in domain model.
  + Correct UML syntax
  + Almost all critical and significant NFRs addressed and justified. Both runtime and non-runtime quality characteristics considered.
  + Consideration of NFRs detailed and specific.
  + Prioritization of NFRs justified against specific needs of project.
  + Costs and benefits of addressing most important NFRs clearly identified and discussed in relation to specific needs of project.
  + Most important system wide services identified.
  + Most important critical and significant external interfaces identified.
  + Most important critical and significant business rules identified.
  + Most important system constraints identified.
* The requirement model **includes a full use case description for the CCRD use case** which identifies the normal and **most** alternate and exception flows, and adheres to sound use case description conventions, and also **identifies non-functional requirements** for the use case.
* The requirement model sets out a **reasonably thorough** set of **realistic and achievable specific** functional and non-functional goals for the project.
* The requirement model reflects **most** lessons learned during the Elaboration Phase.

1.3 Architecture Model

* All DI criteria as specified in LCOM Proposed Architecture criteria.
  + Almost all goals and philosophies well explained, and consistent with high priority NFRs.
  + Almost all critical architecturally significant requirements correctly identified and implications explained.
  + Many decisions and constraints identified. Decisions completely consistent with goals and philosophies, sensible, and well justified with reference to specific needs of project.
  + Most architectural mechanisms identified. Mechanisms related to architecturally significant requirements.
* Framework/architectural style sensible and appropriate to project. Almost all NFRs addressed.
* The architecture **explains** the approach used to implement the CCRD use case, and supports **all** remaining functionality and system qualities to be implemented.
* The architecture reflects **most** lessons learned during the Elaboration Phase.

1.4 Project Plan

* The plan is fairly specific, with many project specific outcomes mentioned. It is relatively easy to tell what is deliverable at what point in the project.
* The plan shows roughly when each architectural element and element of functionality will be delivered.
* Some specific risk management elements and contingency planning are apparent.
* The plan is related to specific concepts of the Unified Process

2. Executable CCRD

* All scenes animated where appropriate
* Users able to create an account
* Users able to login using existing accounts
* Application to get questions from database
* Users able to play through a single round
* Users score updated on DB and score board
* Global score board pulled from DB and displayed to user

3. User Acceptance Tests

* Tests conform with the objectives of master test plan and **all**test quality criteria (well organised, well named, well explained, and well targeted, supported by clear evaluation criteria and specific test data).
* A suite of user acceptance tests for the CCRD use case covering normal and **all**alternate and exception flows has been specified, and scripts exist to support those tests.
* A **clear and comprehensive**report detailing the results of carrying out those UATs is available.

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| --- | --- | --- | --- | --- | --- | --- | --- |
| **Work Item ID** | **Name or key words of description** | **Outcome** | **State** | **Assigned to (name)** | **Estimated Hours** | **Hours worked** | **Estimate of hours remaining** |
| 1.1 | Vision Document | Document will be submitted to version control. A pull request will be made specifying Charnes as reviewer.  Charnes will comment directly on the document and upload to version control  Col to make alterations as appropriate and upload to version control  (22/4/18) | [In progress](https://github.com/coldog86/Development-Project/blob/Col/Documentation/Vision%20Draft.docx) | Col | 5 | 0 | 5 |
| 1.1 | <https://github.com/coldog86/Development-Project/blob/Col/Documentation/Vision%20Draft.docx> | | | | | | |
| 1.2 | Requirement Model | Document will be submitted to version control. A pull request will be made specifying Col as reviewer.  Col will comment directly on the document and upload to version control  Michelle to make alterations as appropriate and upload to version control | [In Progress](https://github.com/coldog86/Development-Project/blob/Michelle/Initial%20Requirement%20Model.docx) | Michelle | 5 | 5 | 1 |
| 1.2 | <https://github.com/coldog86/Development-Project/blob/Michelle/Initial%20Requirement%20Model.docx> | | | | | | |
| 1.3 | Architecture Document | Document will be submitted to version control. A pull request will be made specifying Michelle as reviewer.  Michelle will comment directly on the document and upload to version control  Aaron to make alterations as appropriate and upload to version control | [Complete](https://github.com/coldog86/Development-Project/blob/Aaron/Architecture.docx) | Aaron | 5 | 5 | 0 |
| 1.3.1 | Game Design Document | Document will be submitted to version control requesting a review from Michelle.  Michelle will comment directly on the document and upload to version control  Aaron to make alterations as appropriate and upload to version control | [Complete](https://github.com/coldog86/Development-Project/blob/Aaron/Game%20Design.docx) | Aaron | 1 | 1 | 0 |
| 1.4 | Project Plan | Document will be submitted to version control. A pull request will be made specifying Michelle as reviewer.  Michelle will comment directly on the document and upload to version control  Charnes to make alterations as appropriate and upload to version control | [In Progress](https://github.com/coldog86/Development-Project/blob/Charnes/Documentation/Lets%20Quiz%20Project%20Plan.docx) | Charnes | 9 | 10 | 0 |
| 1.4 | <https://github.com/coldog86/Development-Project/blob/Charnes/Documentation/Lets%20Quiz%20Project%20Plan.docx> | | | | | | |
| 1.5 | Vision Document Review | Charnes to review the Vision Document using the criteria stated above Appropriate and thorough comments should be made.  Commented document to be submitted to version control | Not Started | Charnes | 3 | 0 | 3 |
| 1.6 | Requirements Model Review | Col to review the Requirements Model using the criteria stated above. Appropriate and thorough comments should be made.  Commented document to be submitted to version control | [Complete](https://github.com/coldog86/Development-Project/blob/Michelle/Initial%20Requirement%20Model.docx) | Col | 3 | 2 | 0 |
| 1.6 | <https://github.com/coldog86/Development-Project/blob/Michelle/Initial%20Requirement%20Model.docx> | | | | | | |
| 1.7 | Architecture Document Review | Michelle to review the Architecture Document using the criteria stated above. Appropriate and thorough comments should be made.  Commented document to be submitted to version control | [Complete](https://github.com/coldog86/Development-Project/blob/Aaron/Architecture.docx) | Michelle | 3 | 0 | 3 |
| 1.7 | <https://github.com/coldog86/Development-Project/blob/Aaron/Architecture.docx> | | | | | | |
| 1.8 | Project Plan Review | Michelle to review the Project Plan using the criteria stated above in the outcome. Appropriate and thorough comments should be made. | [Complete](https://github.com/coldog86/Development-Project/blob/Charnes/Documentation/Lets%20Quiz%20Project%20Plan.docx) | Michelle | 3 | 1 | 2 |
| 1.8 | <https://github.com/coldog86/Development-Project/blob/Charnes/Documentation/Lets%20Quiz%20Project%20Plan.docx> | | | | | | |
| 2.1 | High Score display | Write the PHP scripts to handle score submission and update user data + retrieval of data for scoreboards | [PHP](https://github.com/coldog86/Development-Project/blob/Col/evidence%20of%20work/viewHighScores)  [PHP](https://github.com/coldog86/Development-Project/blob/Col/evidence%20of%20work/ranking.php) | Col | 3 | 1.5 | 0 |
| 2.1 | <https://github.com/coldog86/Development-Project/blob/Col/evidence%20of%20work/viewHighScores>  <https://github.com/coldog86/Development-Project/blob/Col/evidence%20of%20work/ranking.php> | | | | | | |
| 2.2 | High Score Display | Create game objects to hold high scores data retrieved from database | [C#](https://github.com/coldog86/Development-Project/blob/communal/Let's%20Quiz/Assets/_Game/Scripts/HighScore/highScoresObject.cs)  [C#](https://github.com/coldog86/Development-Project/blob/communal/Let's%20Quiz/Assets/_Game/Scripts/HighScore/HighScoresContainer.cs) | Col | 1 | 1 | 0 |
| 2.2 | <https://github.com/coldog86/Development-Project/blob/communal/Let's%20Quiz/Assets/_Game/Scripts/HighScore/highScoresObject.cs>  <https://github.com/coldog86/Development-Project/blob/communal/Let's%20Quiz/Assets/_Game/Scripts/HighScore/HighScoresContainer.cs> | | | | | | |
| 2.3 | C# | Charnes to write the C# code inside of Unity for all the classes that will need access to the database. | [Complete](https://github.com/coldog86/Development-Project/commit/059197ab601498df3f19817d23ccee09e1436385#diff-86d424f7aa0e0d8d8ea69d6f936d369f)  [Complete](https://github.com/coldog86/Development-Project/commit/422f3935342be1edd9a96363b1f43975d7c9e9b9#diff-86d424f7aa0e0d8d8ea69d6f936d369f)  [Complete](https://github.com/coldog86/Development-Project/commit/c7ee408f405e0a1b1c46cd7b9caadf4fa17a6928#diff-86d424f7aa0e0d8d8ea69d6f936d369f)  [Complete](https://github.com/coldog86/Development-Project/commit/ce20e507985979b9e626d513c9fced86f5db0794#diff-86d424f7aa0e0d8d8ea69d6f936d369f)  [Complete](https://github.com/coldog86/Development-Project/commit/9e63c6157ea0babe8cd646827977695e443ed57d#diff-86d424f7aa0e0d8d8ea69d6f936d369f) | Charnes | 10 | 10 | 0 |
| 2.4 | Get questions and answers to display in game |  | [Complete](https://github.com/coldog86/Development-Project/commit/cac601801f3abd56304b0d44a81a92aa77e9716e)  [Complete](https://github.com/coldog86/Development-Project/commit/028c638e0c4a535c0b2d08afbe35d3a3a5151bc3)  [Complete](https://github.com/coldog86/Development-Project/commit/463cc55dbab3408f08c951197d1418ec2e148b73) | Aaron | 8 | 8 | 0 |
| 2.5 | Color coding the answer buttons | When a user presses the correct button it should light up green. An wrong button should light up red & the correct should also light up green | [Screen Shot](https://github.com/coldog86/Development-Project/blob/Col/evidence%20of%20work/snip%20of%20color%20coded%20game.PNG)  [code](https://github.com/coldog86/Development-Project/blob/communal/Let's%20Quiz/Assets/_Game/Scripts/Object/AnswerButton.cs) | Col | 1 | 8 | 0 |
| 2.5 | <https://github.com/coldog86/Development-Project/blob/communal/Let's%20Quiz/Assets/_Game/Scripts/Object/AnswerButton.cs>  <https://github.com/coldog86/Development-Project/blob/Col/evidence%20of%20work/snip%20of%20color%20coded%20game.PNG> | | | | | | |
| 2.6 | Animation of UI | Michelle to animate screen changes, button reactions, user inputs etc | Suspended | Michelle | 2 | 0 | 0 |
| 2.6 | <https://github.com/coldog86/Development-Project/blob/Michelle/Let's%20Quiz/Assets/_Game/Animation/Controller/Buttons/AnswerButtonController.controller> | | | | | | |
| 2.7 | Get questions and answers to display in game | Deserialising question JSON into GameData was causing an error. After some time we managed to solve the problem. | [Complete](https://github.com/coldog86/Development-Project/commit/b39fccff8ac1f388d7dd74b9403464a7c4af689e) | Aaron  Col | 3  0 | 2  2 | 0  0 |
| 2.8 | Create AllCatatgories ‘category’ | Combine all question categories into a single giant category to be used as the question pool | [Complete](https://github.com/coldog86/Development-Project/commit/95563017aad6ae188140ed102441dd6bc7f2771a#diff-4a3afa2b727ceb639e54a3445b090ff9) | Col | 1 | 1 | 0 |
| 2.9 | Randomizing Question Pool | Each game should ask the user random questions to prevent repetition | [Complete](https://github.com/coldog86/Development-Project/commit/a15175478121231b94b5fee3d11b6ad1b3802d6f#diff-4a3afa2b727ceb639e54a3445b090ff9) | Col | 2 | 1 | 0 |
| 2.10 | Randomizing Answer Pool | The position of each answer button needs to be random so the correct answer isn’t always at the top of the list | [Complete](https://github.com/coldog86/Development-Project/commit/a15175478121231b94b5fee3d11b6ad1b3802d6f#diff-4a3afa2b727ceb639e54a3445b090ff9) | Col | 1 | 1 | 0 |
| 2.11 | HTML question submission form | Create a simple way for team members to add questions to the question pool | [Complete](http://www.41melquizgame.xyz/LQ/quickSubmit.html) | Col | 1 | 0 | 2 |
| 2.12 | Complete unity game scene for Question submission | Make necessary alterations to the submit question scene to make it work. | [Complete](https://github.com/coldog86/Development-Project/commit/0743d3efd35d3e614fb0ad05c8913f85447b060e#diff-3cef565b0a18a04d3a0fe6cc38137aec) | Col | 3 | 3 | 0 |
| 2.13 | Allow for server to take user submitted questions and add them to the question pool | Create necessary PHP script to allow users to submit questions from in game | [Complete](https://github.com/coldog86/Development-Project/blob/Col/evidence%20of%20work/PullQuestionsFromDB.php) | Col | 3 | 3 | 0 |
| 2.14 | Complete unity backend to allow for communication with scene and server | Alter C# scripts to allow for question submission | [Complete](https://github.com/coldog86/Development-Project/commit/0743d3efd35d3e614fb0ad05c8913f85447b060e#diff-3cef565b0a18a04d3a0fe6cc38137aec) | Col | 3 | 3 | 0 |
| 2.15 | Change data structure of JSON being returned by PHP | Col to change database call to pass JSON in more useable format for Aaron to serialise into game objects | [Complete (output)](http://41melquizgame.xyz/LQ/pullAllQuestions.php)  [Complete (PHP code)](https://github.com/coldog86/Development-Project/blob/Col/evidence%20of%20work/PullQuestionsFromDB.php) | Col | 1 | 12 | 0 |
| 3.1 | Login UAT | Design test | [complete](https://github.com/coldog86/Development-Project/blob/communal/Login%20UATs.docx) | Michelle | 1 | 1 | 0 |
| 3.1 | <https://github.com/coldog86/Development-Project/blob/communal/Login%20UATs.docx> | | | | | | |
| 3.2 | Launch App UAT | Design test | [complete](https://github.com/coldog86/Development-Project/blob/communal/Launch%20App%20UAT.docx) | Michelle | 1 | 1 | 0 |
| 3.2 | <https://github.com/coldog86/Development-Project/blob/communal/Launch%20App%20UAT.docx> | | | | | | |
| 3.3 | Play Game UAT | Design test | [Complete](https://github.com/coldog86/Development-Project/blob/communal/Play%20game%20UAT.docx) | Michelle | 1 | 1 | 0 |
| 3.3 | <https://github.com/coldog86/Development-Project/blob/communal/Play%20game%20UAT.docx> | | | | | | |
| 3.4 | Register Account UAT | Design test | [Complete](https://github.com/coldog86/Development-Project/blob/communal/Register%20Account%20%20UATs.docx) | Michelle | 1 | 1 | 0 |
| 3.4 | <https://github.com/coldog86/Development-Project/blob/communal/Register%20Account%20%20UATs.docx> | | | | | | |
| 3.5 | Login UAT | Perform and record test | [complete](https://github.com/coldog86/Development-Project/blob/communal/Login%20UATs.docx) | Michelle | 0.5 | 0.5 | 0 |
| 3.5 | <https://github.com/coldog86/Development-Project/blob/communal/Login%20UATs.docx> | | | | | | |
| 3.6 | Launch App UAT | Perform and record test | complete | Michelle | 0.5 | 0.5 | 0 |
| 3.6 | <https://github.com/coldog86/Development-Project/blob/communal/Launch%20App%20UAT.docx> | | | | | | |
| 3.7 | Play Game UAT | Perform and record test | [Complete](https://github.com/coldog86/Development-Project/blob/communal/Play%20game%20UAT.docx) | Michelle | 0.5 | 0.5 | 0 |
| 3.7 | <https://github.com/coldog86/Development-Project/blob/communal/Play%20game%20UAT.docx> | | | | | | |
| 3.8 | Register Account UAT | Perform and record test | [Complete](https://github.com/coldog86/Development-Project/blob/communal/Register%20Account%20%20UATs.docx) | Michelle | 0.5 | 0.5 | 0 |
| 3.8 | <https://github.com/coldog86/Development-Project/blob/communal/Register%20Account%20%20UATs.docx> | | | | | | |

# 5. Issues

|  |  |  |
| --- | --- | --- |
| **Issue** | **Status** | **Notes** |
| Task 2.7 was a reactionary task. The data being passed to the game was not structured correctly | Complete.  See task 2.7 & 2.15 | Due to the class structure of the gameData, questionData ect the JSON string being passed from the server to the game has to be structured in a particular way.  Reorganizing the data received from the database into this structure was very time consuming. |
| Intermittent fault | Complete | There was an intermittent fault that caused the game to crash. After some time diagnosing Aaron isolated the fault to a timing issue where an object returned by the database was being called before it was initialized. |
| Task 1.5 was uncompleted due to Charnes being out of state | Uncompleted | Completed as of iteration plan 6 |

# 6. Assessment

[Use this section for capturing and communicating results and actions from assessments, which are typically done at the end of each iteration. If you don’t do this, the team may not be able to improve the way they develop software.]

|  |  |
| --- | --- |
| Assessment target | Iteration # 5 |
| Assessment date | 21-05-18 |
| Participants | Aaron, Col, Charnes, Michelle |
| Project status | Green |

## Assessment against objectives

We achieved all our goals this week with everyone submitting documents for review. With most reviewers looking over their assigned documents.

Large progress was made on the CCRD, the goal of having a working CCRD was a large aim but we achieved it with many work items being attributed to that end.

## Work Items: Planned compared to actually completed

A stand out task was deserializing of the JSON files, it proved to be a huge job which was totally not foreseen as can be seen by work items 2.15 & 2.7

We also did better then expected with regard to our high level goal 3, testing.

The only document not reviewed was the Vision Document, work item 1.5, the reason for this was communicated with the team and is not an area of concern.

## Assessment against Evaluation Criteria Test results

Master Test plan is only outstanding work item still to be completed to draft status, which is acceptable due to the test plan really requiring the CCRD.

All team members kept to their goals and reviewed each others work on time.

At this point we feel very confident as to the progress of the assignment. Having a working CCRD is a big task achieved this week.

## Other concerns and deviations

James pointed out that we have been spending too much time on our documents and we have taken that on board. It is concerning that most documents are still being reviewed and worked on.