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| --- | --- | --- |
| The system should allow the customer the ability to create short assessments in the form of tests | **FUNCTIONAL** | **Must Have** |
| A test should contain no more than 10 questions | **NON - FUNCTIONAL** | **Must Have** |
| Customer should be able to choose whether they want the assessment to be formative or summative. | **FUNCTIONAL** | **Must Have** |
| The software should record how many times a student answered a question incorrectly/correctly, at the first attempt when taking a formative test | **FUNCTIONAL** | **Must Have** |
| The student should get feedback after each attempt but only be provided with answers following final attempt. | **FUNCTIONAL** | **Must Have** |
| The system should be adequately protected and secured against unauthorised users. | **NON-FUNCTIONAL** | **Must Have** |
| The system should allow the lecturers to obtain statistics about the tests such as average class score and questions most often answered incorrectly | **FUNCTIONAL** | **Must Have** |
| The lecturer should be able to view results for any one test taken by a particular student | **FUNCTIONAL** | **Must Have** |
| The local program must be linked to an online database used to manage students scores | **NON - FUNCTIONAL** | **Should Have** |
| There should be a teacher login and a student login to allow for students to answer, teachers to create tests etc…. | **FUNCTIONAL** | **Should Have** |
| Each student much have a unique ID number and login to be used as a unique identifier (key) within the database. | **FUNCTIONAL** | **Should Have** |
| The system should be stored on a server, to make sure that students cannot edit any source code, making the tests easier or finding answers. | **FUNCTIONAL** | **Should Have** |
| When taking answers from students allow spelling mistakes or variations of the answer to be correct | **NON - FUNCTIONAL** | **Could Have** |
| The main body of code will be written in a program called python. | **NON - FUNCTIONAL** | **Should Have** |
| Users should be taken to different home screens based on whether they are students or teachers | **NON - FUNCTIONAL** | **Should Have** |
| Students should only be allowed access to their personal results, and the tests they are able to take | **FUNCTIONAL** | **Must Have** |
| Teachers should be able to have access to a higher level of features, including creating new tests and monitoring student progress | **FUNCTIONAL** | **Should Have** |
| The system should work reliably and without fail 99% of the time | **NON - FUNCTIONAL** | **Should Have** |
| The system should be simple and easy to use, but each component should be distinct from any other. For example, 99% of users should be unable to start a test without meaning to. | **NON - FUNCTIONAL** | **Should Have** |
| An advanced package should allow teachers to view student results in a variety of orders (such as ordered alphabetically). | **FUNCTIONAL** | **Should Have** |
| There should be two types of tests able to be created, Formative tests and summative tests | **FUNCTIONAL** | **Must Have** |
| Formative tests should not record the individual student’s performance. | **FUNCTIONAL** | **Must Have** |
| Formative tests – students should be given feedback after each attempt at a question | **FUNCTIONAL** | **Must Have** |
| Each student’s password should have a minimum complexity | **NON - FUNCTIONAL** | **Could Have** |
| Login for both students and teachers require an ID, and the password | **NON - FUNCTIONAL** | **Should Have** |
| Summative Tests – Should record student progress and individual results | **FUNCTIONAL** | **Must Have** |
| Summative Tests – Allow students only a single attempt at any one test | **FUNCTIONAL** | **Must Have** |
| Summative Tests – The mark for the test taken should be provided immediately after the test is finished | **FUNCTIONAL** | **Must Have** |
| Summative Tests – lecturers should be able to view and retrieve results for all students after the test deadline | **FUNCTIONAL** | **Must Have** |
| Should run on windows 7/10 PC | **NON - FUNCTIONAL** | **Must Have** |
| Tests, whether summative or formatives should have a max of 10 questions | **NON - FUNCTIONAL** | **Must Have** |
| Questions should appear to students in random order | **FUNCTIONAL** | **Must Have** |
| Teachers should be able to edit created tests | **FUNCTIONAL** | **Must Have** |
| The decision whether a test is formative or summative should be made after test creation, but before test publishing. | **FUNCTIONAL** | **Must Have** |
| Teachers can view and request result reports from any student’s completed test | **FUNCTIONAL** | **Must Have** |
| Formative tests should only allow for 3 attempts | **Non functional** | **Should have** |
| Summative test statistics should provide the average mark, most common mark, highest mark & lowest mark | **NON - FUNCTIONAL** | **Could Have** |
| Software developed for lab computers | **NON-FUNCTIONAL** | **Should Have** |
| If they have answered a question incorrectly on a formative test they should be pointed out where they can learn more about the subject. | **NON- FUNCTIONAL** | **Could have** |
| Only students who have completed tests should be included in statistics. | **NON- FUNCTIONAL** | **Should have** |
| Optional timed version of formative tests. | **NON- FUNCTIONAL** | **Could have** |
| Students should only receive tests that are meant for their module. | **NON- FUNCTIONAL** | **Could have** |
| Feedback given back to lecturer on the tests. | **NON- FUNCTIONAL** | **Could have** |

**Current Idea’s for system layout:**

Python based local program that is linked to an online database containing the exams made by the teacher.

Website setup with a login page that allows the exams to be answered online. Both code and database stored online.