4/20/2016

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Activate Learning

Write Up Document

Computer Science Project

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# Analysis

## Overview

### Initial

Who (client) - a teacher (Debbie Light)

What do they want - something to make tests for their students.

Why do they want it - so they save time making tests.

What does it need to do to be judged 'Works' - needs to make tests based on criteria and needs to take input with information about it.

How does the client imagine using it? - Open the program, select criteria (time, level, topic) and the program creates a document with the test in to print. It should also create the mark scheme.

### Revised with client

Who (client) - a teacher (Debbie Light)

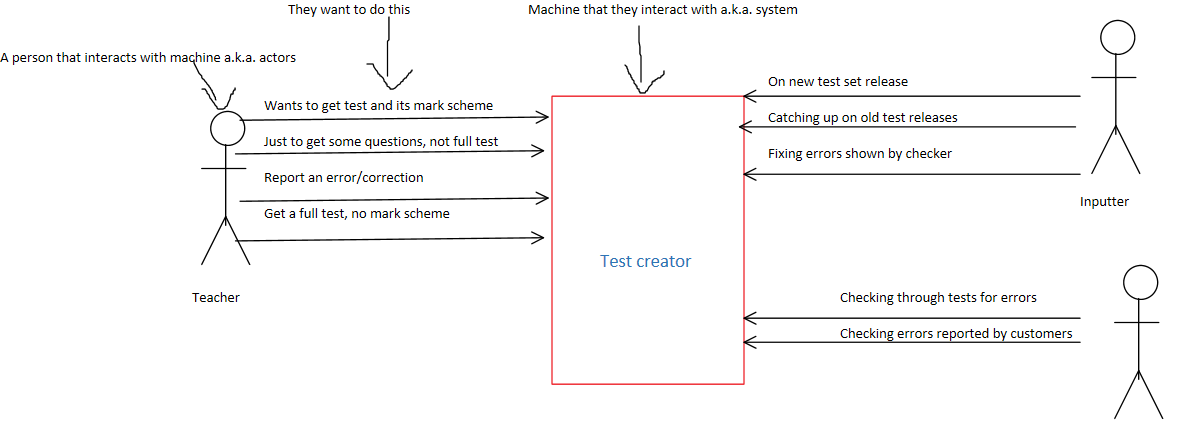
What do they want – App which compiles tests according to users criteria.

Why do they want it – Save time finding questions from past papers.

What does it need to do to be judged 'works' - Compile test and mark scheme according to user-set criteria.

How does the client imagine using it – Select a topic and level and limiting factor(time/no of questions) and it shows a series of questions to be able to print/export.

## Use Case Diagrams



Checker

## SMART objectives - specific, measurable, achievable, realistic, time-bound

Do a smart objective for each of the above

### Teacher to System

Get a test with its associated mark scheme based upon inputted data (i.e. topic, level) within around 10 minutes.

Get a few questions (small test/pop quiz) based upon inputted data (i.e. topic, level) within around 10 minutes.

Get a full scale past paper test, based upon inputted data (i.e. topic, level) within around 10 minutes.

Report a mistake/error, be able to locate where the error is/is found, to be able to be fixed by a member of staff, within a few minutes.

Update the database with either an installer or by dragging it into the appropriate folder.

### Inputter to System

Import a question from a new test, split up question by question, along with the appropriate mark scheme, within 5 minutes.

Import questions from an old test, split up question by question, along with the appropriate mark scheme, within 5 minutes.

Correct an error identified by the checker so that users can update the database to the newer set off data that is correct.

### Checker to System

Check test questions and mark schemes already on the database for errors and flagging them as incorrect with a comment within the required time for each question and less than a minute to flag and report errors.

Check new questions that are about to be put onto the database for errors and flagging them as incorrect with a comment within the required time for each question and less than a minute to flag and report errors.

Verify that the errors spotted by the users

## Interview plan

### Questions

* 1. Would you prefer the program to be online or offline?

* 1. Would you ever use the application on your phone?

* 1. How long do you want it to take to get a test?

* 1. Would you prefer a login or not?

* 1. What criteria would you like to search with?

* 1. How long does it currently take you to create a test?

* 1. What kind of scenarios would you use the application?

* 1. Would you suggest that your students use the program?

* 1. What kind of special features would you like to have?

* 1. How would you like to report mistakes/bugs? (email, online page, on application)

* 1. What kind of styling would you like the program to have?

* 1. What are the frustration you have with the current way you find tests?

* 1. Name 3 factors of the system that are most important to you?

* 1. Name 3 factors of the system that are least important to you?

### 

### Transcript

Simon: Would you prefer the program to be online or offline?

Debbie: Online

Simon: Would you ever use the application on your phone?

Debbie: No

Simon: How long do you want it to take to get a test?

Debbie: 1-2 hours

Simon: Would you prefer a login or not?

Debbie: Yes

Simon: What criteria would you like to search with?

Debbie: topic and grade

Simon: How long does it currently take you to create a test?

Debbie: 3-4 hours

Simon: What kind of scenarios would you use the application?

Debbie: creating end of topic and end of year tests

Simon: Would you suggest that your students use the program?

Debbie: No so that they cannot see any of te questions before my tests

Simon: What kind of special features would you like to have?

Debbie: searching by topic and level and maybe tell me how long the test would take to answer

Simon: How would you like to report mistakes/bugs? (Email, online page, on application)

Debbie: Email

Simon: What kind of styling would you like the program to have?

Debbie: easy to read, no fancy logos or animations. Lots of drop down boxes and search fields.

Simon: What are the frustration you have with the current way you find tests?

Debbie: I can search by topic and broad level but not any further than that.

Simon: Name factors of the system that are most important to you?

Debbie: searching by topic, level and easy to use.

Simon: Name 3 factors of the system that are least important to you?

Debbie: The way it looks and a very precise time on how long the test would take, though a rough idea would be nice.

### Sample data

I have this in my folder, cannot find a way to import this.

#### PDF

#### Word (able to copy and paste into program)

# Design

## Test plan

The tests I will be running will be to measure the capability and usability of my application for my client.

I will only be testing my application with my client, no other applications or clients.

The objectives of the tests are to find out whether my application works in the way my client wants it to, these can be found in my use case diagram.

This is also another place for debugging the program.

The target market for my application are teachers.

The assumption I will have to make to plan these test are:

* The application will be finished by the time of the test
* My client has their own computer and internet connection
* My client will be available for testing the product

The testing is planned to be done around June 20th however this may be changed according to the progression of the application.

The testing should take no longer than 2 hours so it can all be done on the same day.

The tests will take place in the client’s home as this is where they have the need for the application.

Some of the risks are that any personal information that is used in the application will be lost or stolen.

There will be changes made in the code to deal with these issues.

There will be no need for the client to report the issues found as I will be with the client when they are testing.

I will be making notes during the testing so that I can fix any issues found.

## Test Cases

|  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- |
| Test no | Tester | Task | Risk | Mitigation | Maximum time to take | Time taken | Task Completed | Comments |
| 1 | Debbie | Get a test without a mark scheme |  |  | 2 hours |  |  |  |
| 2 | Debbie | Get a test with a mark scheme |  |  | 2 hours |  |  |  |
| 3 | Debbie | Report a problem/error |  |  | 10 mins |  |  |  |
| 4 | Me | Find reported error and fix |  |  | 30 mins |  |  |  |
| 5 | Debbie | Find corrected data |  |  | 10 mins |  |  |  |
| 6 | Me | Add new data |  |  | 30 mins |  |  |  |
| 7 | Debbie | Find the new content |  |  | 10 mins |  |  |  |

## Proof of concept

I have created two proof of concept programs.

### Generic Webpage

To prove that I can create and format a generic webpage for my project, I created one.

#### Images

### ASP.Net webpage

To prove that I can use asp.net to manage webpages, I created a website that is managed by asp.net.

#### Images