BAY HOUSE SCHOOL AND SIXTH FORM

Chair of Governors Training Tracker

CG4.6 - Evaluation

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Evaluation

Testing Results

In my testing document, I tested the three major parts to my program: navigation, functionality and validation. The testing was successful in terms of finding faults in my program. The main faults found were found in the functionality section of testing. Most of the issues have since been resolved.

The navigation was successful. None of the tests failed and the navigation of the program works as intended.

As I mentioned previously, most of the errors were found in my functionality testing. I decided to do a completed run through of all the functions that the user would be most likely to use every time the program was opened. Four out of ten of my tests had minor bugs in them and none of my tests revealed any major bugs. All of the functions that I had implemented had worked. The bugs tended to be small things like spelling mistakes and the "clear fields" button didn't work as intended or not at all in some cases. The spelling errors were fixed right away and the "clear fields" buttons were fixed after the testing was completed.

The validation testing results showed that my validation library worked fully and that no bugs made themselves apparent. I have also tested blank filed validation and where it was tested it worked as designed.

Satisfaction of Objectives

In my original analysis of the problem, I split the objectives into 4 parts: Main, Reports, Aesthetics and Performance. I will review each one of these sections and state the original objectives and whether I think I have met them or not. Where anything is written in Italics, I have taken it from my original analysis document to aid my evaluation.

Main

- *To maintain information about governors*
    - *To be able to add new governors*
    - *To be able to amend information about governors*
    - *To be able to mark governor as inactive, if leaving post*

I have successfully created and tested the functionality to add new governors and to edit governors already in the database. In the program, there are dates for when the governor was elected and when their elected term ends. While this is not the same as an active/inactive flag for the governor, it may be treated as a similar thing. I believe I have completed 2/3 of the objectives here. I don't think I would add a flag for active/inactive governors unless the user specifically asks for it. It may be an extra area for improvement.

- *To be able to maintain information about courses*

    - *To be able to add new courses*
    - *To be able to amend information about courses*

Here I wanted to be able to add and edit courses in the database. I have successfully created and tested these functions. They work as intended and are in line with my original objectives. I consider these objectives to be met fully.

- *To be able to track what courses each governor has completed*

I have implemented and tested the function for adding a completed course to a governor. This feature works completely and allows the user to select a governor in the system and select a course they have completed and the date they completed it. This is then stored in the database for later. I believe I have met this objective.

- *To be able to find out when a governor had completed a course*

This objective was successfully completed as I have implemented a form that allows the user to select either a governor or a course and a table will populate with all the courses a given governor has completed or all the governors that have completed a given course. This allows the user some scope in how to search through the database to find the information they require. As the dates are already in the database, it was just a case of retrieving them from the database and displaying them to the user.

- *To print out specialised reports on:*
    - *Who has completed a specific course*
    - *Who has completed what courses in a given time frame*
    - *What courses are going to be completed in a given time frame*
    - *List of governors and details*

While I have unsuccessfully implanted printable reports, I have implemented multiple forms that allow the user to see the contents of the various tables in the database. There is a form that allows the user to see all the governors, courses and categories and as previously mentioned, there is a form that allows the user to see courses completed by a governor and governors that have completed a course. While this doesn't allow the user to print off the list, the user can now easily find a governor that has completed a course for a specific use.

This is the biggest area where I could improve the program. I would implement some sort of reports system where the user could print off reports about almost any aspect of the database for use somewhere else.

Reports

- *To be able to retrieve /print a list of courses completed by a governor*
- *To be able to retrieve/print a list of governors that have completed a given course*
- *To be able to retrieve/print a list of courses being taken and whom are taking them within a given time*

Above is what I set out to achieve with my system in terms of creating reports. I have failed to implement a reports function into my program and can't assess how well the report function works. This was mainly due to time limitations. I wanted to make sure that all the functions of my program that I had begun to implement were working well and well-polished. This would be my main area of improvement for the program.

However, I have implemented forms which will allow the user to see any information in the database one way or another. I have implemented fields which allow the user to view the courses, categories, governors and completed courses via two different criteria in the system. By implementing these functions, I believe I have met a compromise for not implementing a report function. While it won't give my user the ability to print out reports from the system, the user can still access all the information in the database through the forms allowing them to continue with their job as before.

Aesthetics

"I aim to create and include a logo for use throughout the program. I anticipate it will appear on every page. First I will ask Ann if she has a governor's logo that I could use instead. If there is a logo, I will hopefully be able to deduce a colour scheme from it. If this is not possible, I will go with a basic blue and grey colour scheme seen in much professional/commercial grade software."

Unfortunately, there was no logo that I was able to use. Because of this, there is no logo throughout any of the program's interface. Again, unfortunately I was unable to dedicate time to implementing a colour scheme. I opted to stick with the default colour scheme that was implemented by the IDE. It is blue and grey which is what I wanted originally, so this is somewhat of a benefit to my program. I personally think it look professional and thus I don't think I will need to change it unless user feedback indicates that it is required.

Performance

"The system should be easy to navigate and should be similar to other programs with logical placement of key buttons (OK, Exit, Help, etc.). "

I believe that I have achieved this. The Exit button is always in the same location as are the confirmation buttons and the clear buttons. There is consistency between the layouts of each of my forms.

"Should the user encounter an error, the message should follow some initiative and make sense to the user."

I believe that all my error messages would make some sense to the user as to how to overcome the problem encountered. The only error messages that the user won't understand would be errors thrown out by the MySQL connection. Any errors relating to data input, validation and confirmation when deleting or editing records should make sense to the user and fulfil some initiative quality.

"The system should avoid the use of technical terms that aren't necessary to improve the user friendliness of the program. "

I have made no conscious decision to use any technical terms that the user may not understand in my program. I have tried to keep all of my communication with the user throughout my program consistently basic to the point where the user will understand everything that they are doing.

Evaluation Criteria

To help me assess whether my final product was usable and suitable, I created a questionnaire and handed it to a peer to complete. I opened the questionnaire with this statement:

Usability and Suitability User Testing
For the duration of this test, please imagine that you are the head governor at a primary school and it is your job to keep track of what governors have completed which courses.

The piece of software that you're about to use has been developed for this very purpose. While using this program, please think about whether it is suitable for the job and how usable it is.

This user test will take you through a run through of the program and its features.

This sets the scene for the user to enable them to think in the way that the user would be using the program. It also informs them as to what the program is for. The rest of the questionnaire doesn't give any hints as to how to use the program, just only tasks to complete. This gives an indication of how usable and suitable the program will be. The functionality isn't the primary focus of this test, so I won't be referring to the questionnaire as much for the functionality part of the evaluation in this section. Below, I will display the questions that I asked and their results. Afterwards, I will assess the programs usability, functionality and suitability with help from the responses of the questionnaire.

The first task that I asked the test user to do was to add a governor:

Now, please add a Governor with the following test data:

First Name: Nathan
Last Name: Mathews
Election Date: 06/11/2011
End Date: 06/11/2015

How easy was it to complete this task? (1 being very hard and 5 being very easy)

1	2	(3)	4	5

They scored it a three out of 5 which shows that it is equally as hard as it is easy to complete.

Then I asked the test user to add a category.

Now, please add a Category with the following test data:

Category Name: Law

How easy was it to complete this task? (1 being very hard and 5 being very easy)

1	2	3	4	(5)

This was a very easy task to perform according to my user.

Below, is the section for adding a course to the database.

Now, please add a Course with the following test data:

Course Name: Teacher Rights
Category: Law

How easy was it to complete this task? (1 being very hard and 5 being very easy)

1	2	3	4	(5)

The user once again found this a very easy task to complete.

The user was then asked to bring the previous records together and create a completed course entry.

Now, please add a Completed Course with the following test data:

Governor: Nathan Mathews
Course: Teacher Rights
Date: 03/12/2013

How easy was it to complete this task? (1 being very hard and 5 being very easy)

1	2	3	(4)	5

The user found this task easy, but not as easy as previous tasks.

The user's final task was to find and view a list of the governors in the system.

Now, please find and view all the governors.

How easy was it to complete this task? (1 being very hard and 5 being very easy)

1	2	3	4	(5)

This was considered to be a very easy task.

After the user was complete with using the system, I asked a few questions about how they felt about using the program:

For the following questions, if you say no, please leave a comment as to why you feel this way.

Do you feel the functionality is suitable for the audience?

Yes

Do you feel that the program is fit for purpose so that it could work in its intended scenario?

Yes

Do you feel that the interface is suitable for the purpose that it is set out to achieve?

Yes

Do you think that the confirmation and/or error messages (if you encountered any) were suitable for the audience?

Yes

These questions help give me some insight as to how my test user might feel about this program being used in the scenario it was created for.

Usability

From the tests in the questionnaire, it is clear that the system itself is very usable. The test user was given no help or no indication of where to find button to access certain functions and the data entry was left completely to their own accord.

The test user said that they felt as if the interface along with error and confirmation messages were quite suitable for the audience. This also shows that they are usable and hopefully quite helpful to the user.

One of the questions asks if the system could work in its intended scenario, they answered “yes”. This shows that the system itself is usable for the intended purpose and would allow someone to track governor training.

I have no personal doubt that from my user testing that the program itself is usable. The test user did not fail to complete any of the tasks and they found functions with relative ease.

Functionality

Overall, my testing for the functionality of the system was quite successful. All of the key features that I set out to implement to allow the system to work in its intended setting were implemented at tested to prove they work. Unfortunately, I was unable to implement a reports system which would allow the user to create and print out customised reports. There were also a few minor bugs that wouldn’t be too hard to fix and don’t directly take away from the functionality of the program.

The user can complete the task which solves the problem I was originally faced with. I consider this a pass for the functionality of the program. However, as I have said, the reports system did fail. I have tried to implement searching features into the system which should fill the gap for where the reports system should be but it won’t be as good as a fully featured reports system.

I learnt that when creating a system that communicates with a database, a lot of the functions used are the same or quite similar. For instance, adding, editing and removing records are all very easy tasks to perform. So is searching through the database. However, I learnt that in order to create a fully featured system, time management is key. I ran out of time in the end to implement a reports feature and this is the main part where my system falls down.

In the testing, I discovered that the system’s user interface works very well. My test user didn’t get lost in the program at any point and they always managed to find what they were looking for.

Suitability

The test user answered a series of questions which focused on how suitable or fit for purpose the program was. The user replied to all questions with the response that they feel as if the program was not only suitable for the audience, but also fit for purpose.

The test user also said that they felt as if the program was suitable for the audience. I made it clear what the audience would be at the beginning of the questionnaire and by the end of their test they felt as if the program was suitable for the audience.

I think that because my user had no issue with how suitable for audience or how fit for purpose it was, I can say that the system is suitable.

Improvements

There was one part of my program that I didn't have enough time to begin to work on and that was reports. I wanted to be able to create user defined reports on a number of things with data from the database. For instance, if the user wanted all completed courses within a given time frame then the program would be able to create this information in the form of a web page for the user to print. The user could then take this page to a meeting and use it to aid their job.

I would implement the reports by creating a function which would take data from the database and use file IO with a basic web page that had fields that could be manipulated by the program to output the relevant information for the user. This could then be printed and used by the user.

I would maybe implement a log in screen. This would allow multiple users to use the system from different locations without fear of any security breaches. While there is no data in this system that would be deemed sensitive by my opinion, it might be critical to keep this information private to the user. I would have to add another table to the database and keep user names and password in the table to allow multiple people to log in. This may cause issues if multiple people are using the program at once but I could implement a label or function which would tell the people using the program who is currently signed in. I could also keep a log in case someone damages the records. This would allow someone to find out who damaged records and what records were damaged.

There are multiple improvements that I would like to include in my program in terms of validation. I would like to add a condition where items are checked against the database to see if they already exist. This would prevent double records and improve the integrity of the database. I would do this by searching the database with the given field information and compare it by what is already in the database. If it already exists, I would inform the user that it already exists and allow the user to make a decision based on the information I supply.

Overall Success

I believe my project to be a success. I implemented all the critical functions into my program to enable it to work as to my design. While I did not implement a function that would allow for reports to be made, I have made it so that the user can access all this information. I think that after implementing some improvements, the system would be much better than it already is and would make my client quite satisfied. I can also conclude that my user testing was successful which shows that the system is suitable for audience and fit for purpose.