

GOWER COLLEGE SWANSEA

M5X1056

Implementation-Project

HND Computing and information Systems

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Project proposal- Member tracking system

I am proposing a project that will help track people in a community driven scheme for example after school clubs in and out of an academic campus so I arranged a meeting with a client from bont elm church in pontarddulais, the church has been around for a number of years and is well known and well appreciated in the community parents are willing for their children to socialize there rather than on the streets as. But... there is a slight concern that the pastor (Jason beynon) has reached out to me for, which is he needs a more reliable and dependent way of tracking everyone who enters the building and who is in his care at certain times. After a little conversation Jason and I had we then arranged a meeting where we could discuss this little project in further detail.

On the 20/09/18 I attended a meeting with Jason beynon from elm church pontarddulais, we discussed the issues he was having at the centre where people were coming and going and Jason having trouble of keeping an eye on everyone all at the same time so this is where my member tracking system then came of mind^[1]. We discussed what capabilities the system could do, such as.

- Send Error messages for multiple swipes by the user
- Sign in and out via an HCI
- A potential website for members to sign up (which will instruct the parents of members to accept T&Cs and parental permissions for filming and photos)
- Different categories for different login Members depending on what group you are registered with whether it's the comp or primary students (over 9 years old) or the dance academy students
- A temporary suspension tracker
- Track how many people are in the building

Also, in my meeting some more topics were discussed like how it would be relevant to have an automatic sign out over a certain time. By doing this I thought maybe if the time of the coffee shop closing is greater than time the last group of the day ends then automatic sign out for all members will then be half hour later. There was also the potential for Potential ucas points gain for members so maybe we could go over this in more detail if we have some time.

An important factor of this system is that it can keep an updated register so that in the case of an emergency there will be an update log of all people that were in the building. So maybe using a hot key I could then have a query run that will print or email a query of everyone in the building at a certain time^[1]

Making the project user Friendly and Analysis

The main user for my system is potentially teen based so I need to make the system more usable and interesting for them to use so but I feel buy giving the system a name would be a great start to making it more enjoyable. So the name of the system is MyClubPal. This name now makes the system more user friendly and professional, I used Outofschoollalliance.co.uk ^[5] to make sure that I was not copywriting someone's system similar to mine.

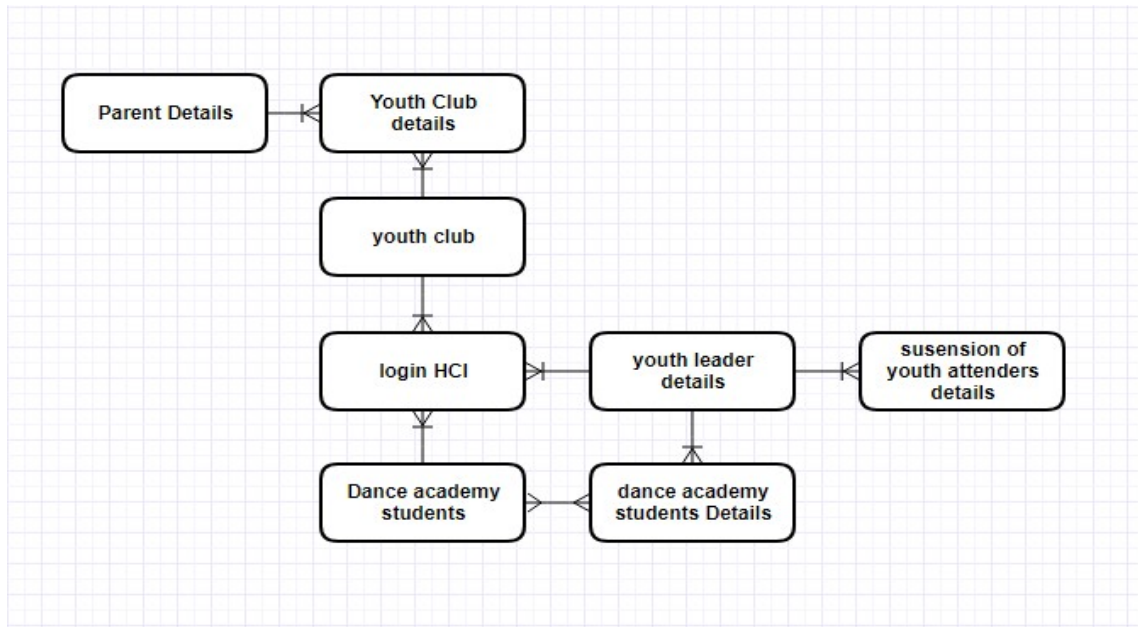
Logo design

Thanks to the free logo maker ^[5] I have found I was able to find and create a logo for my system also adding a better professional look for this system I am creating. It's a basic design and is an ideal logo as it's versatile and is basic for a good system logo ^[5].



Project plan time management and journal (see appendix one)

The system specification and design



My erd is simple to follow the youth club details will be placed in to a table and it can be accessed through the youth club as it is there details so they should be allowed to edit personal details such as their medical history or address other details like guardian details or other important information may be required to be changes by the parent or guardian.

The youth club table will then be a table that will only contain the details of certain members who have logged in that day making it simpler for the youth leader to see details of the pupils, such has if any of the students are suspended (separate table for the suspended pupils) and the youth leader details will be on a table that can only be accessed by the youth leader of the club or other youth leaders.

The reason for the two dance academy tables is because there will be separate tables for the different classes but both tables will be connected to the dance academy students details so the youth leader in charge can access details of need be.

Moving forward

At this point I had another meeting with my end user and I was able to discuss the details of what I was doing and take any questions or queries he had about the system, we were also able to agree on the implementation of the system ^[2]

Data Dictionary

Tbl-Name	Attributes
Tbl Pupil	<u>Pupil ID(pk)</u> Pupil Forenames Pupil Surname Pupil Address Pupil Tel no Pupil DOB Medical history <u>Youth leader ID(fk)</u>
Tbl Youth leader	<u>Youth leader ID(pk)</u> Youth leader forenames Youth leader surname Youth leader Address Youth leader Tel no Youth leader DOB Youth leader specialism Youth leader Date appointed Medical history criminal record
Tbl club	<u>club ID</u> club Name members members logged in <u>Youth leader ID(fk)</u>
Tbl Dance Academy students	<u>Dance Academy students ID(pk)</u> Dance Academy students forenames Dance Academy students surname Dance Academy students Address Dance Academy students Tel no Dance Academy students DOB Dance Academy students Medical history
Tbl login	<u>login ID(pk)</u> Date of login Date of leaving <u>Pupil ID(fk)</u> <u>Youth leader ID(fk)</u> <u>club ID(fk)</u> <u>Dance Academy students ID(fk)</u>

Attribute



<u>Pupil ID(pk)</u>	<u>Unique ID to the pupil</u>	Number (integer)	Primary key in Tbl pupil ID foreign key in login ID
Pupil Forenames	Field in Tbl pupil ID	Varchar Text (30)	Field in Tbl pupil ID
Pupil Surname	Field in Tbl pupil ID	Varchar Text (30)	Field in Tbl pupil ID
Pupil Address	Field in Tbl pupil ID	Varchar Text (30)	Field in Tbl pupil ID
Pupil Tel no	Field in Tbl pupil ID	Varchar Text (30)	Field in Tbl pupil ID
Pupil DOB	Field in Tbl pupil ID	Date/time	Field in Tbl pupil ID
<u>Youth leader ID(fk)</u>	Field in Tbl pupil ID	Number (integer)	Primary key in Tbl youth leader ID foreign key in login ID
<u>Youth leader ID(pk)</u>	<u>Unique ID to the youth leader</u>	Number (integer)	Primary key in Tbl youth leader ID foreign key in login ID
Youth leader forenames	Field in Tbl youth leader ID	Varchar Text (30)	Field in Tbl youth leader ID
Youth leader surname	Field in Tbl youth leader ID	Varchar Text (30)	Field in Tbl youth leader ID
Youth leader Address	Field in Tbl youth leader ID	Varchar Text (30)	Field in Tbl youth leader ID
Youth leader Tel no	Field in Tbl youth leader ID	Varchar Text (30)	Field in Tbl youth leader ID
Youth leader DOB	Field in Tbl youth leader ID	Date/time	Field in Tbl youth leader ID
Youth leader specialism	Field in Tbl youth leader ID	Varchar Text (30)	Field in Tbl youth leader ID
Youth leader Date appointed	Field in Tbl youth leader ID	Date/time	Field in Tbl youth leader ID
Medical history	Field in Tbl youth leader ID	Varchar Text (30)	Field in Tbl youth leader ID
criminal record	Field in Tbl youth leader ID	Varchar Text (30)	Field in Tbl youth leader ID

<u>Dance Academy students ID(pk)</u>	<u>Unique ID to the D.A.S</u>	Number (integer)	Primary key in Tbl D.A.S ID foreign key in login ID
Dance Academy students forenames	Field in Tbl D.A.S ID	Varchar Text (30)	Field in Tbl D.A.S ID
Dance Academy students surname	Field in Tbl D.A.S ID	Varchar Text (30)	Field in Tbl D.A.S ID
Dance Academy students Address	Field in Tbl D.A.S ID	Varchar Text (30)	Field in Tbl D.A.S ID
Dance Academy students Tel no	Field in Tbl D.A.S ID	Varchar Text (30)	Field in Tbl D.A.S ID
Dance Academy students DOB	Field in Tbl D.A.S ID	Date/time	Field in Tbl D.A.S ID
Dance Academy students Medical history	Field in Tbl D.A.S ID	Varchar Text (30)	Field in Tbl D.A.S ID

<u>club ID</u>	<u>Unique ID to the club</u>	Number (integer)	Primary key in Tbl club ID foreign key in login ID
club Name	Field in Tbl Club	Varchar Text (30)	Field in Tbl Club
members	Field in Tbl Club	Varchar Text (30)	Field in Tbl Club
members lo	Field in Tbl Club	Varchar Text (30)	Field in Tbl Club
<u>Youth leade</u>	Field in Tbl Club	Number (integer)	Primary key in Tbl youth leader ID foreign key in login ID

<u>login ID(pk)</u>	Field in Tbl login	Varchar Text (30)	Field in Tbl login
Date of login	Field in Tbl login	Date/time	Field in Tbl login
Date of leaving	Field in Tbl login	Date/time	Field in Tbl login
<u>Pupil ID(fk)</u>	Field in Tbl login	Varchar Text (30)	Field in Tbl login
<u>Youth leader ID(fk)</u>	Field in Tbl login	Varchar Text (30)	Field in Tbl login
<u>club ID(fk)</u>	Field in Tbl login	Varchar Text (30)	Field in Tbl login
<u>Dance Academy students ID(fk)</u>	Field in Tbl login	Varchar Text (30)	Field in Tbl login

Hardware

The system when completed will be require a various amount of different software and hardware, the software I will be created using visual studio and I will write using C# coding language, I will created the tables and the relationship between them using SQL but I will created forms using Microsoft access. **As for the hardware when completed I will require certain peripherals such as.**

Alternatively I may be obliged to take a different approach as I find that to meet the requirements of the system it may be better done as a web app, the reason being is that, it will be better equipped for meeting the internet based requirements like emailing the register to the head of the facility and/or club, so for the web app I will use PHPMyAdmin to create the databases for the information to be stored, I will also use visual studio code in order to create the front end of the web app.

After a discussion with the end user we have collectively decided that the best option will be to go with the web app idea as it has more potential to be a better front end for the system as the clubs Instagram feeds or twitter news can be posted on the home page^[2]

Storyboards

(See Appendix two for storyboards)

The story boards show the layout and order on how the app will work, it will allow the user to select a club and then choose the club they belong to. They will then be redirected to a login screen and from there will be able to login, once successfully logged in there data will be added to the database and will be available for the youth leader to print a register from the data. And the "add new member" button will be to add people they will be given a guest login and password but will have to wait fill a physical form to create an account.

Software

A touch screen device simply to allow the students to sign in with and it will allow the youth leaders to add new pupils to the system or new youth leaders, potentially I may be able to improve the hardware by adding and Id scan and giving the pupils ID cards for simpler sign in. ^[6]

A backup storage device to save all the details of the clubs and their members, so if there is a problem with the system there is always a backup to go back to, so there is no loss of data and the software can be restored if necessary.

the costings of the system aren't as bad as it seems the only training needed for the system is going to be the head youth trainer who will need to know how to add people to the system, how to take people away from the system and how to edit data already there as for maintenance and other system problems can be easily fixed by their IT technician as they will be brought up to date on how to use the system by me.

Validation and verification issues

potential issues that might occur on the may include multiple scans where on person may try to scan the same card many times, possibly then tricking the system that that many students have signed in, so when it comes to sign out it will then be unmatched number of students signing out compared to the amount who have already signed in, so I need to make sure that the system is equipped to Recognize the problem and then counter with an error message stating the problem so that user someone signs in inappropriately.

another issue may be that the user may not have verified the account so they may have signed themselves up for the club without telling their guardian so the system needs to be able to pick up on if the account is verified or not so if someone signs in who hasn't verified then it may be a problem for the parent

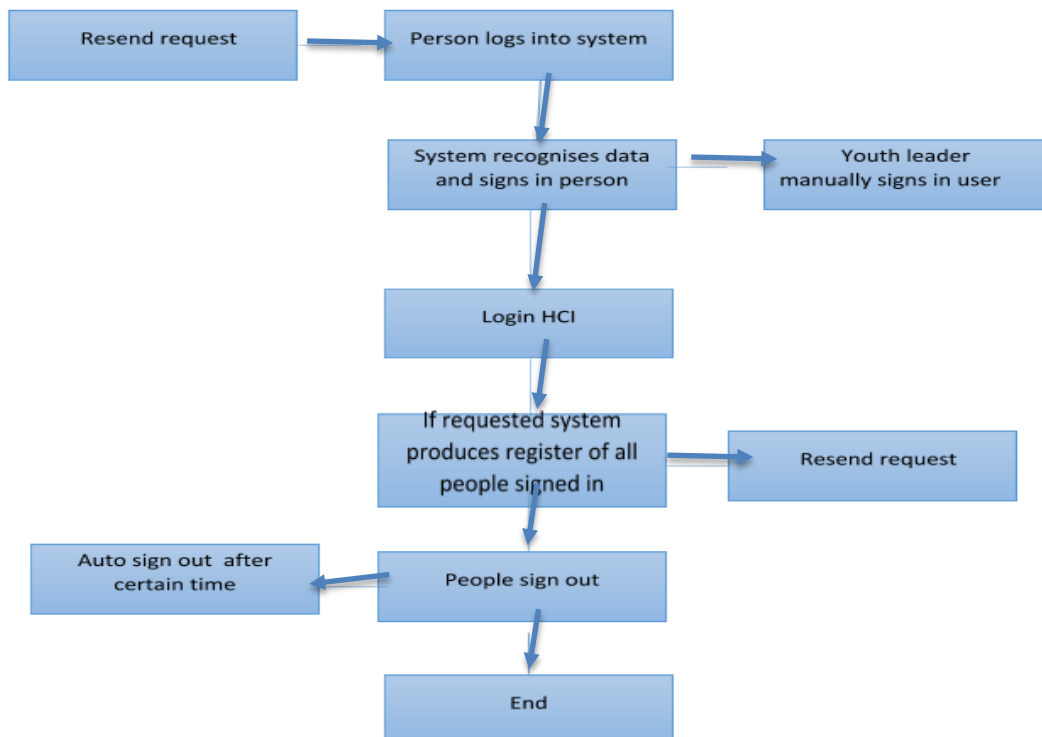
Also, an issue for the system maybe that the system needs to be child proof for example some aspects maybe that the children may have access to certain features that only the admin should be allowed access to. So, the system needs to be able to detect what features certain users have access to.

there could be a fire so the system needs to be able to create a document of all members, that can be accessed from outside the building or off site so that a register can be conducted to ensure that all members from all clubs who are signed in at the moment of fire can then be accounted for to insure their safety.

End user feedback

I am truly pleased with the effort that has been put into this project and very excited to see the system put in place, I am happy with the design details and the layout created and I have an idea now on how everything is going to work, I am also prepared to help where I can, and I can happily say that I sign off on the design layout that I am okay with the details presented.[2]

Processing



(See appendix 3 for pseudo)

Evaluation/Analysis

To evaluate my work, I'm pretty pleased with the outcome and the potential that this project has. I'm pretty motivated and educated in that I will be able to complete this task. The documented work I have wrote will help me to actually create the project and will let me create MyClubPal to the point when it can be finalized and released, I will follow the research and design I have made in order to do so which will help the productivity of the project created. I will measure the success of my project by how well it helps with its purpose.

The problems I have encountered while starting this project is that there is a lot of stuff to do but not a lot of time to do it in, so the extras I will come up with alone the way will be kept separate from documentation and will be discussed as future improvements.

Appendix one

	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	Hours
Meetings with Project leader	24/9/2018	1/10/2018	8/10/2018	15/10/2018	15/10/2018	22/10/2018	29/10/2018	5/11/2018	12/11/2018	19/11/2018	26/11/2018	3/12/2018	10/12/2018	17/12/2018	7/1/2019	14/1/2019	8.5
Meetings with end user					17/9/2018							3/12/2018				17/9/2018	2
Worked on project proposal	24/9/2018	1/10/2018	8/10/2018	15/10/2018	15/10/2018	22/10/2018	29/10/2018	5/11/2018	12/11/2018	19/11/2018	26/11/2018	3/12/2018	10/12/2018	17/12/2018	7/1/2019	14/1/2019	50
design plans for project								5/11/2018	12/11/2018								2
Created Flowchart									12/11/2018								1
Creation of ERD										19/11/2018							2
Project documentaiton		1/10/2018	8/10/2018	15/10/2018									10/12/2018	17/12/2018	7/1/2019	14/1/2019	20+

Appendix two

Home screen

The Home screen layout features a large rectangular box at the top labeled "LOGO". Below the logo, there are three smaller rectangular boxes arranged horizontally, labeled "Login for staff", "login for DAS", and "login for youth".

Staff login

The Staff login layout includes a large rectangular box at the top labeled "LOGO". Below the logo is a box labeled "Staff login". Underneath, there are two input fields labeled "Username" and "Password". To the right of these fields is a large rectangular box labeled "Staff buliten". At the bottom left, there is a button labeled "Add New staff Member".

DAS login screen

The DAS login screen layout features a large rectangular box at the top labeled "LOGO". Below the logo is a box labeled "DAS login". Underneath, there are two input fields labeled "Username" and "Password". To the right of these fields is a large rectangular box labeled "DAS Buliten". At the bottom left, there is a button labeled "Add New DAS Member".

Youth club details

The Youth club details layout includes a large rectangular box at the top labeled "LOGO". Below the logo is a box labeled "Youth Club login". Underneath, there are two input fields labeled "Username" and "Password". To the right of these fields is a large rectangular box labeled "Youth Club Buliten". At the bottom left, there is a button labeled "Add New Youth club Member".

Login granted screen

The Login granted screen layout features a large rectangular box at the top labeled "LOGO". Below the logo is a box labeled "Login successful".

Appendix 3

If person clicks button for youth club

Take person to youth club login

Else

Session timeout go back to index page

If person clicks button for Dance academy students

Take person to Dance academy login

Else

Session timeout go back to index page

If person clicks button for staff/youth leader

Take person to staff/youth leader login

Else

Session timeout go back to index page

If person logs in incorrectly to the club

Then ask for login details again

Else

Move onto home page and use login information

If person logs in incorrectly 3 times

Then system send error message to club leader

Else

Move onto home page and use login information

While on home page

Do show information on page that belongs to the club you're in

If person leaves building

Then request sign out

Else

Auto sign out at 7pm

Bibliography

Journal (all meetings made will be listed as "[1]" for referencing)

19th September- After learning about the implementation project I found Jason and decided to help me with my idea of a tracking system for an after school club. On this day I arranged a meeting with Jason where we could discuss ideas and potentially come up with an overall view on the system.

20th September- I met with Jason at the arranged time, I arrived 15 minutes beforehand to make sure I would be on time I also dressed appropriately to keep a professional appearance for this meeting. I used our time to discuss my ideas and show my excitement for this project as how beneficial it will be, after the meeting I then returned home where I could look over the notes I had made to make sure I didn't miss anything.

24th September- Here I began to create a project proposal for my lecturer to give them an idea of my approach, the software I will be using and also a basic flowchart to show how I will be applying my project

1st October- During this lesson I had made an email to send to Jason where it would say everything from my notes that we had discussed and explained if there were any additions he had to make to let me know about.

8th October- Here I made corrections and spelling and grammar checks to my email and proposal and asked my fellow classmates to look over them for feedback on the both documents and took their feedback into consideration.

15th October- After making the changes I could then send the email to Jason where I could then wait for feedback ready to make changes to the proposal for the lecturer to then view.

22nd October- I have now received a reply email but before making any changes to the work I will be having a meeting with the project supervisor to go over all the work I have done so far and to show the progress I have made towards the final mark.

29th October now using the email I was then able to make changes to the work I had done and I was able to continue with my project proposal further.

5th November I now moved onto the next part of the project by making all the design plans for the project so that when they are done I can take them to the

end user to be verified and then the changes could be made depending on if they had any changes or ideas they wanted to be taking into consideration.

12th November I have started and finished my flowchart to help give a brief view on how the system works and how certain element link to each other with a discussion on why

19th November I have started my ERD as a starting point on how the database will work and the links in the table. Ready for when I actually build the database.

26th November I have normalised my database to make it more efficient to the system in the future the building begins

3rd December here I had a meeting with the project leader to discuss details of the work had completed and also discussed future work that I will be conducting over the holidays

10th December I had made a start on my implementation documentation and put in all the work I have so far into the document I had then discuss what i had done and mentioned any possibilities for future improvement

7th January here we had discussed what I had done over the holidays and asked the project leader for any questions or queries I had

14th January I had finalized my report and documentation ready for the project leader to go over and give any input they had on the work I done

References

Meeting date: 20th September 12:00

Meeting with: Jason beynon

Location: Bont elm church [1]

Meeting date: 15th october 12:00

Meeting with: Jason beynon

Location: Bont elm church [2]

Meeting date: 3rd December 12:00

Meeting with: Caroline Brangan

Location: Gower college Swansea (ty coch Campus) [3]

Article title: Discounted club management products for OOSA members | Out of School Alliance
Website title: Outofschoolalliance.co.uk
URL: <https://www.outofschoolalliance.co.uk/club-management-product> [4]

Article title: Logo Maker | Used By 2.3 Million Start-ups
Website title: Logojoy.com
URL: <https://logojoy.com/explore> [5]

Article title: NEW 7" INCH BTC FLAME TABLET PC FAST HD SCREEN WIFI
ANDROID 8GB | eBay

Website title: eBay

URL: <https://www.ebay.co.uk/i/252673287218?chn=ps&var=551607094283> [6]