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How can the introduction of a forum allow for students to voice themselves more effectively?

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Abstract

The aims of the project were to create a forum and ask users to explain what they thought about and how they use forums. The first aim was completed with coding and literature reviews. The second with primary research and last aim with analysis and evaluation. While the methods used to reach this goal were mainly positivism and deductive approaches of research methodologies. The project provided a forum page as well as questionnaire results which cover aspects of such as what people think of forums and why they are commonly used. While the conclusive notes drawn from this consists of mainly positive notes regarding forums and education.

Contents

Statement of the Problem	5
Introduction	5
Outline of the Client.....	5
Introduction	5
Origin of Forums	5
Moderation	6
Terms of Use	6
Coding languages	7
Login.....	7
Students and Web Forums.....	Error! Bookmark not defined.
Conclusion	8
The Aims and Objectives.....	9
Aim 1	9
Aim 2	9
Aim 3	9
The Research Methodology	9
Philosophy.....	9
Approach.....	9
Strategy	10
Time Horizon	10
Data Collection Method	10
Evaluation Criteria.....	11
Methods of Testing	11
Development Methodology	11
Hardware	11
Software	11
Expenditures	12
Gantt Chart.....	12
Design and Implementation.....	13
Design.....	13
Requirements.....	13
System Models.....	13
System Interface	Error! Bookmark not defined.
Implementation	15
Problems and Successes	15

Software Testing	15
Iterations	18
Evaluation	18
Conclusion and Recommendations	19
Conclusion	19
Recommendations	19
Bibliography	21
Appendix	25
Ethics Form.....	25

Statement of the Problem

Introduction

The research proposal will consist of sections of research of topics and sub-topics surrounding a certain field of application, this being either a web or an application with the usage and driving of data being an inclusion. The synthesis of different topics allows the presentation of areas to be understood and discussed to forward this project, the types of topics that will be covered would focus on the client's initial concerns regarding the implementation of this as well as other topics that may relate or provide purpose in context of research or information.

Outline of the Client

The client had used a forum in conjunction with 'vocaleyes' a charity service. This has since been discontinued by the college, but the client wants to see the forum returned to see if it can provide any benefit now in a more digital age compared to the past with concerns of moderation, login, and terms of use.

Introduction

Origin of Forums

Pre-Modern

The age of antiquity has many fascinations that the public idealize from it, be it conquerors or philosophers. While the idea of philosophers and other great people of the time come to the minds of people the place where they conversed and exchanged ideas during this era was the forum, the idea of a public space to have discussions can be traced back to the Romans and Greeks with their forums or agora in Greece.^[1]

Modern

The sole idea of a public space where discussions can take place has never left the minds of people even to this day, it wasn't until the propulsion of the internet that saw the beginning of unprecedented exposure and interest in the internet and in turn brought the idea unto it this created early forums for individuals to use over larger areas instead of being localised into one location it can now be conducted over multiple locations over the internet.^[3,5] The initial forum-type usages were of bulletin board systems or BBS for short and UseNet's.^[3,4,5] The BBS it provided a place to share software and data, news and chat between users that are logged into the system with administrators monitoring the system. The UseNet was a primarily chat-based system like BBS but took that system and de-centralized it from a central server with less or no administrative prowess. This shows the initial contrasting views of forums between administrative control and freedom.^[4,5] This divergence in administration can be seen as the initial branching path between distinctions of modern forums with administrative control over what can be said and freedom of expression. The initial forums combined or developed upon these systems and can be dated to the 80s and 90s with platforms such as Delphi forums and WIT a W3 forum.^[6,7] The usage of them and similar platforms allowed users to meet others with similar or different opinions and create a sense of community for individuals.^[8,47]

The early to mid 2000s grew the internet into a truly communication network in which instead of dial-up being used broadband introduction allowed for greater usage and quicker usage on the internet where many platforms, programs and websites were introduced and with users just chatting to random people with no clue who they were but a name they choose, this era of the internet is akin to the wild west portrayal in movies and other media. While this was extremely decentralized with many forums and forums created for any topic it was not until websites such as

Reddit that forums were very accessible to every user, this centralized many topics that could be individual forums into one single website with subforums within it.^[9,46] The key features for a forum to be used effectively consists of terms of use and the wellbeing of those upon the platform which comes under the userbase and how moderation handles it.^[51,52,53]

Moderation

The usage of moderation serves as a tool to combat information that may be harmful or go against the rules of the service, the perceived need of moderation comes from the requirement of rules and regulations that are in place on websites and the general goal of moderation is typically to ensure that visitors or users of websites will follow them. This can be considered an improvement of quality and usefulness of the content that is accessible and viewed, they create order out of potential chaos.^[10,11] There can be considered three degrees of moderation that can be categorised, the Computer or AI moderation, Hired-Administrators and Peer Administrators.^[12,13,14] The computer or ai moderation is automatic moderation of websites where there is little or no human interaction with the process websites such as YouTube employ such methods but with human review if requested. The process of how this is carried out will consist of rule-based and statistical techniques for the automatic moderation. The rule-based techniques creates list of blacklists or keywords to filter through on the websites. The statistical technique uses a classifier and would be trained through many word examples of “bad” and “good” words to train it to tell them apart. The differences between these are that the first has false-positives and negatives due to the word being flagged without context and that the second has a much higher cost to deploy.^[12]

Then the hired-administrators would carry out the same tasks and operations of the previous section and would belong to a specific section of the IT department tasks with ensure that rules and regulations are followed, the step-up in a sense of automatic moderation as it has human intelligence behind it which allows for context and the ease of noticing attempts of letter replacement of single characters with a similar looking one.^[13,15]

The final is peer administrators this follows what the previous actors would carry out except the people that would carry this out are the Individual's who use the website the one key example of this is the website reddit which encompasses both hired and peer moderation, the most work is carried out by the peer administrators which allows for less costs and the employees to not focus on the website and upon other tasks.^[14] Although it is paramount that peer administrators anonymity may be required to avoid harassment as other users can identify and harass them with knowledge of their identity or with background research of the username and on the other side to avoid abuse of powers there must be in place rules to prevent that abuse.^[16]

Terms of Use

The terms of use or known as other descriptions such as terms of service or terms and condition, serve as a legal agreement between user and service in which the user is expected to follow these terms while using the service and these details may change over time and the service has a responsibility to inform users of change.^[17] The content of a terms of service would typically contain the following. The first, definition of key words and phrases may contain an explanation of the nature and purpose of the service as well as any key words and phrases not commonly used or used in a different meaning on the website. The second, user rights and responsibilities would cover scope and restriction of use, accountability for online actions, privacy policy and their definition of rights upon the service. The third, disclaimer of liabilities this regards copyright infringements and outlines contact information of the person designated by the service to receive the complaints.^[19]

The way this can be implemented upon a forum type of service is upfront display of rules and enforcement policy and a section of rules for re-reading.^[18,20,21,22]

Coding languages

Background

The usage of HTML, CSS and JavaScript are the codes that use commonly on every website, with around 97% of websites using JavaScript in their code, these encompass the main code of the front end processes.^[23,24,25,26] Then some of the most common of these are PHP and JavaScript with the PHP service being the most used that being 80% in 2018.^[27,34] Then these languages are the prime ones to apply. The PHP service will typically fall under the NoSQL database^[25,26,28], Java can be under both relational and NoSQL but is primarily relational.^[25,26,29,30] These languages come in the form of frameworks usually, some examples are node.js for JavaScript and Laravel for PHP are some to name.

PHP

The service of PHP can be traced back to the mid 90s and can be considered one of the most common scripting languages and is open source this means that it is free to use on most frameworks. This is processed by an interpreter application in command-line mode performing the action of loading the coding, parsing the code and then executing it. This being one of the first server-side coding languages ensures that it is tried, tested, and has long history of usage. This has a faster load speed on slower internets compared to competitors and can be suggested that PHP is easier than most languages to learn and implement. Then one of the most major difficulties with this is that it lacks debugging tools which means time and potentially money is lost. This language remains highly used in CPU-heavy applications and content management systems like WordPress and Wikipedia.^[32,33,34]

JavaScript

The service of JavaScript is first-hand a frontend technology but with services such as Node.js which uses it as a front and backend application. The origination of Node.js came in 2009 meaning that it is a new language, and it is open source like PHP, and it is free to use. The way this works is by carry out an event loop of threads which handle requests and call-backs to the backend services like the database and the front end. The threads allow for reduce load times with quick caching and faster performance with fast response times, these load times make it more advantages for JavaScript to be used in a setting of real-time and single-page applications. While this has a higher load on CPUs lower end computer or older and unchanged ones may struggle with load times. The services that use this language are for example Netflix and Uber.^[32,34]

Login

The login on a website separates the unauthenticated and authenticated which is crucial for the privacy and prevention of passing of information unto unwarranted individuals. Then security is of most importance as it is the ability for the passwords to be protected, attacks can bypass the need for passwords by stealing username and passwords from the login page instead of brute force methods this means that to increase security end-to-end is required to help prevent this attack. This is the done by the data being encrypted on the sender's system or device, and only the intended recipient can decrypt it.^[35,36] The National institute of standards and technology in the United States suggests have a set of guidelines for a password, those being minimum eight characters and up to sixty-four character limit, no sequential or repeated characters, no hints, and that the written requirements should not be shown except for minimum limit as this helps to understand what the password would

be and finally the prevention of passwords that contain names of the users, organization, or the service itself.^[37]

Online-Learning and Forum

The forum is one such location used and offers a location for the establishment to be challenged by the individual and to challenged others in a formal and discussive manner, with usage and a purpose among students.^[50] The recent coronavirus pandemic shows the effects of education upon students in which the United Nations Educational, Scientific and Cultural Organization or UNESCO states some key effects of the virus upon learning which were interrupted learning, challenges creating, maintaining and improving distance learning, social isolation and challenges measuring and validating learning among others^[55] and for the most part tackled through the implementation of online learning.

The implementation of distance learning through online learning methods and services establishes the location for education in a way that follows the mobility learning whereas the usage of mobility of technology, mobility of learning and the mobility of the learner are used to create an area with which the barriers of distance and other physical presences are removed. Then it is also suggested that the usage of such technologies provide a convenient, effective and productive way of learning through the usage of e-services and web-based services such as class blogs, wikis and discussion forums which they say help elevate the stresses or confinements of the physical and formal settings of classroom into a more liberation environment enabling the student to work, interact with peers and external person who may provide classroom support while this seems pleasant the important inclusion of moderation is brought up again with the teacher in this case being the moderator. Then the greatest caveat of this whole case is the individuals involved, no two people are the same with many factors controlling how effective this can be upon an individual as an individual with no or limited service will not experience the suggestions of benefits as this is aimed towards individuals with the ability to acquire or possess the necessary items needed to access this, which are namely the internet infrastructure, finances and the ability to acquire personal electronics.^[56,57]

The idea of the forum as well as tackling what the UNESCO is furthered upon by the study of Cho Kin Cheng and others that suggests from the quantitative data they collected upon usage and material posted that it facilitates students learning and improve performance upon courses.^[49] Then this is further supported as another study expands the places where it is effective, a study by Carol K.K. Chan and Yuen-Yan Chan found that usage among individuals is high even if the forum is not related to courses directly with forums based around knowledge and raising issues.^[48] While these show suggestions that the forum itself is wholly beneficial towards students, another study by Roger Mason suggests that for students the usage of a forum can benefit and is beneficial for the usage of knowledge sharing and establishing knowledge base which follows in line with the other studies. However, the students themselves do not believe that it is commensurate in social status to lectures, in-class feedback and workshops that are typically provided for them and that for successful online converse to occur moderation services are essential.^[54]

Conclusion

To conclude, from the previous topic areas and sub-topics the chosen technology for this proposal will be in the form of a data-driven website. The specific area explored is that influence they have upon on students to voice themselves effectively, as suggested in the history forums have always been a place for discussions which means that they should come hand in hand with this with the addition of students at the forefront as it is said that forums can improve specific areas in this case it differs with student discussion and issues being raised. The way the other sections apply is upon how this is going to be carried out, as suggested with the sources and research the language of choice

would be PHP as it was found out platforms such as WordPress uses PHP and it can perform functions such as forums. The expectation of login should be understandable for protections as well as terms of usage. While moderation is more complicated to suggest, the simplest solution is the cheapest but requires additional anonymity that being peer moderation.

The Aims and Objectives

Aim 1

The first aim for the project is to establish the secondary research base and develop the project:
The objectives are to

- Conduct a literature review
- Research standard Terms of Use policies to implement upon the website
- Research Different Server-side coding languages (if possible, in terms of forums)
- Code the Project

Aim 2

The second aim for the project was to establish primary research upon the given question
The objectives are to

- Use a Questionnaire to establish views upon the application and the research question
- Establish the initial idea behind average users' opinions upon aspects of the product and the research question

Aim 3

The third and final aim for the project was to create a conclusion on what can be drawn from the research and the survey given out

The objectives are to

- Assess the results so that we can develop an in-depth knowledge upon
- Evaluation of the results and process to, as to see a potential way that it can be developed and changed. So that the results can achieve more accuracy and reliability in the future.
- Suggest future improvements if any based upon the work carried out.

The Research Methodology

Philosophy

The philosophical approaches for my research methodology would be decided between positivism and phenomenological. The positivism is based around using existing theory to develop the hypotheses, based on quantifiable observations and leads towards more deductive approach in the next section.^[38,41] The counter philosophy is phenomenological, this is based around describe the meaning of this experience both in terms of what was experienced and how it was experienced which are people's perceptions, perspectives, and understandings of a particular situation. This also leads towards an approach in the next section leading towards inductive and is based around qualitative data.^[38,41] The philosophy that was chosen would be phenomenological as this directly needs to look at people's perceptions of the application for effective analysis and conclusive thoughts.

Approach

The different approaches are deductive and inductive. The deductive approach develops hypotheses based on knowledge which already exists which begins the research. The inductive approach begins with proposed observations and theories meant for the end of the research process.^[42,43] The approach that was chosen was deductive as forums have been used for a much of the 21st century

such as reddit and people tend to vent their thoughts or frustrations on such a platform or similar ones.

Strategy

The research strategies are experiment, survey, case studies and action research with this section and data collection methods deciding if the research is qualitative or quantitative. This is the general plan for achieving work towards the research question. The strategy chosen was surveys, although stated in approach that I aim for my work to be more qualitative and while surveys are aimed towards quantitative with leaving the questions open-ended this should allow me to have qualitative data while using this convenient method of data gathering and it should be noted that there is expected to be some quantitative data collected. The suggestion to limit biases in the data is as pointed out by Nila Nathan and Jamie Zeitzer “longitudinal collection” which requires prolonged periods of time to carry out so may be limited affect upon this survey as it is carried out over shorter period. ^[44,45]

Time Horizon

The methods I would be using would be Gantt charts and work breakdown structures to control and divide out time with this project.

Data Collection Method

The type of data collection that I would use is Questionnaires as these are directly grouped together with surveys often being the same. Then with the service of Microsoft forms or Google forms that would be used to distribute to people. The type of participants that I would expect are people aged 18–22 which further helps as they are the aimed people who would use this with specifically some usage of impaired users as outlined by the client. ^[44,45]

The Research collected as said in the research proposal shall be primary and secondary research. The primary research will be conducted with questionnaires and the secondary research will consist of multiple studies, articles or accounts. The primary research was conducted by social services such as discord, Facebook or other similar services and the secondary research was conducted through websites such as SAGE journals which is an academic publisher of what I want to investigate. This research is not strictly limited to qualitative or quantitative as it includes both.

Access

The access to the questionnaire requires access to a website link to it and no login details so if anyone has the link, they can complete the questionnaire and as it is distributed over the internet partly due to coronavirus preventing in person questionnaires and due to it being an easy method of distribution. That being said due to this it means that people who are sent or wish to answer this form require access to the internet but to add unto this it is not limited to one platform such as PC devices and can be completed on a person’s phone.

Ethical Issues

The ethical issues relating to the type of research I was using is that the questions results could be used in the way they are not intended for, but I stated beforehand in the questions that the data will be purely used for analysis and will not be for anything else as well as not given to others. Then another issues that can occur is relating to a person issues with questions and the option to opt out of them and not all questions are required but most are, this is because the person who answers the question should not expect to answer any questions that are problematic to them. The title of the questionnaire is there to provide persons understanding to what they will fill out and as such they can opt out from basic knowledge of the area.

Evaluation Criteria

The evaluation of the project should be measure by its deliverable, the website and the goals initially laid out. The end results should be looked at and compared to the initial requirements to see if it meets them if so then it will be satisfactory and if not, unsatisfactory this shows the based evaluation of the project. Then if changes occurred detail if they were good or bad changes for the project in retrospect to see if they either helped the development and end goal or not.

Methods of Testing

The methods of testing that are used for the project is functionality testing. The web service is expected to work and be correctly implemented and that is what this aims to cover, the implementation covers what should be executed against negative inputs or positive inputs intended to either break the functionality ensuring that the project is working without any glitches or issues. This would cover areas such as but not limited to links, forms and validating that the CSS (Cascading Style Sheets) or other code is working correctly.^[60] The method of carrying this out will include a test number, description, method, expected result, actual result and action needed which if action needed a retest to see new results.

Development Methodology

Methodology

The methodology used for this project is the agile where iterative cycles of the process of design, development, testing and then analysing takes place repeatedly till the product is either ready or is deemed fit by the team^[58] and then as such it will follow the method of time-boxing and modularity in which the sections are given certain times towards completion and that the sections are decomposed to provide a clear understanding of what to do upon which and that it can be easily shown to others what is happening. The reasoning behind picking this doctrine is that it provides the iterative that is needed behind a project like this in which features can be refined and improved upon, then to add upon the iterative of it, this allows for another feature of reducing the number of risks and during development as any issues can be left till everything else is working and then upon another iteration or at the end. Then because of the lack of documentation upon the design and development process except for what happened and when and the features of the product. This allows for the project to start and undergo production quickly but also provides a negative for the whole as without documentation there is no clear way to show what has happened except for showing the work in progress which may look confusing to visualize to others.^[59]

Hardware

The system that was used to develop the application was a computer with the hardware specifications of:

- Operation System: Windows 10
- Processor: AMD Ryzen 2600
- Graphics Card: Radeon 5700 XT 8GB
- Storage: 240SSD, 2TB
- Ram: 32GB

Software

The software that was used for development of the application:

- OneDrive – A Microsoft Cloud Storage service, this encompasses other Microsoft services such as word.
- Web Service – Google Chrome or Microsoft Edge
- Server Service – XAMPP so that it can simulate the server connection that would be required

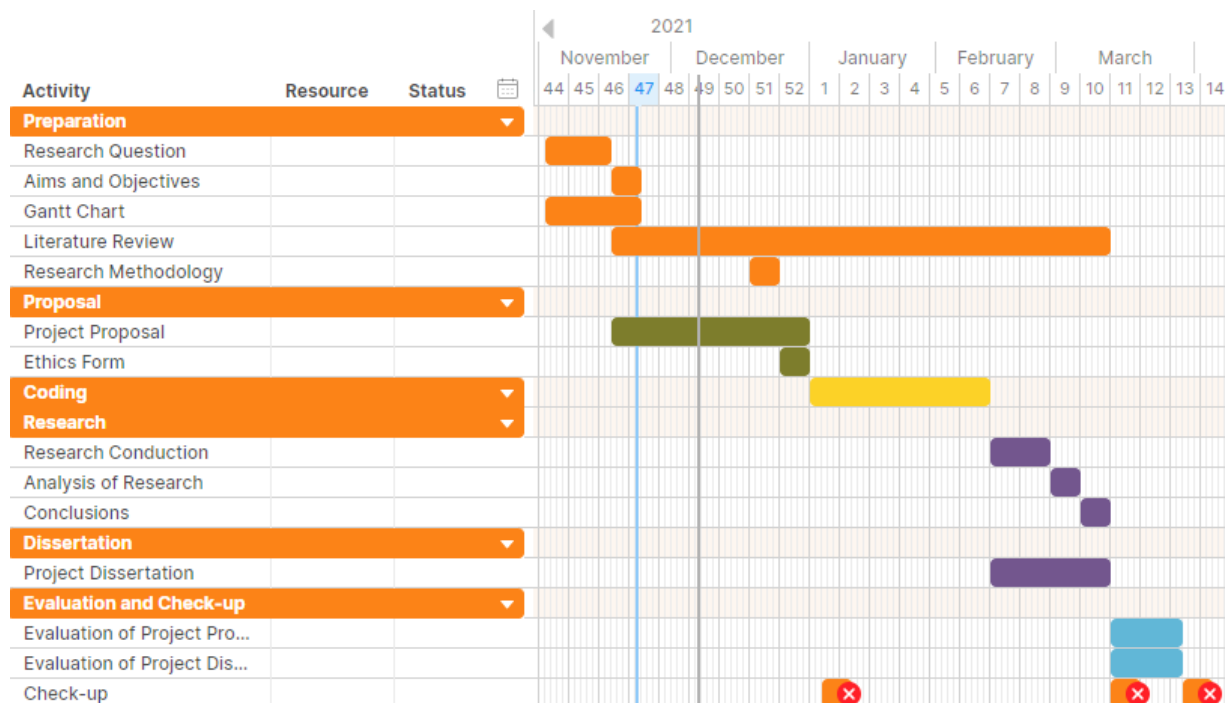
Expenditures

The Expenditures for this are:

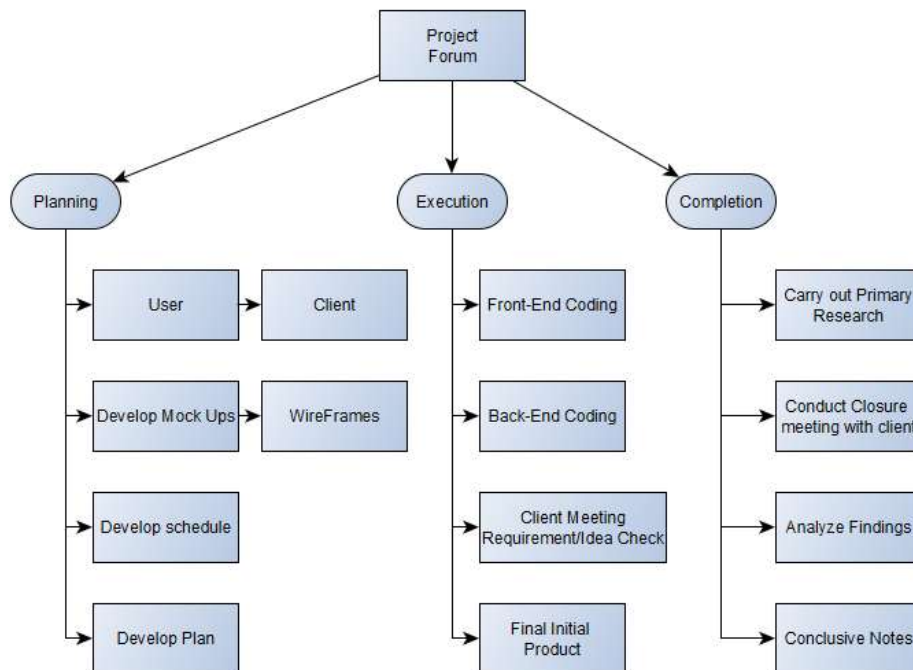
- Travel costs – Public transport
- License fees for services – Personnel OneDrive

Gantt Chart

The image below is setup in weekly for easy viewing in this word document, other viewing methods are available such as days. The link to the chart: <https://plan.tomsplanner.com/public/projectgantt> . The password used to access it is Gantt.



Work Breakdown structure



Design and Implementation

Design

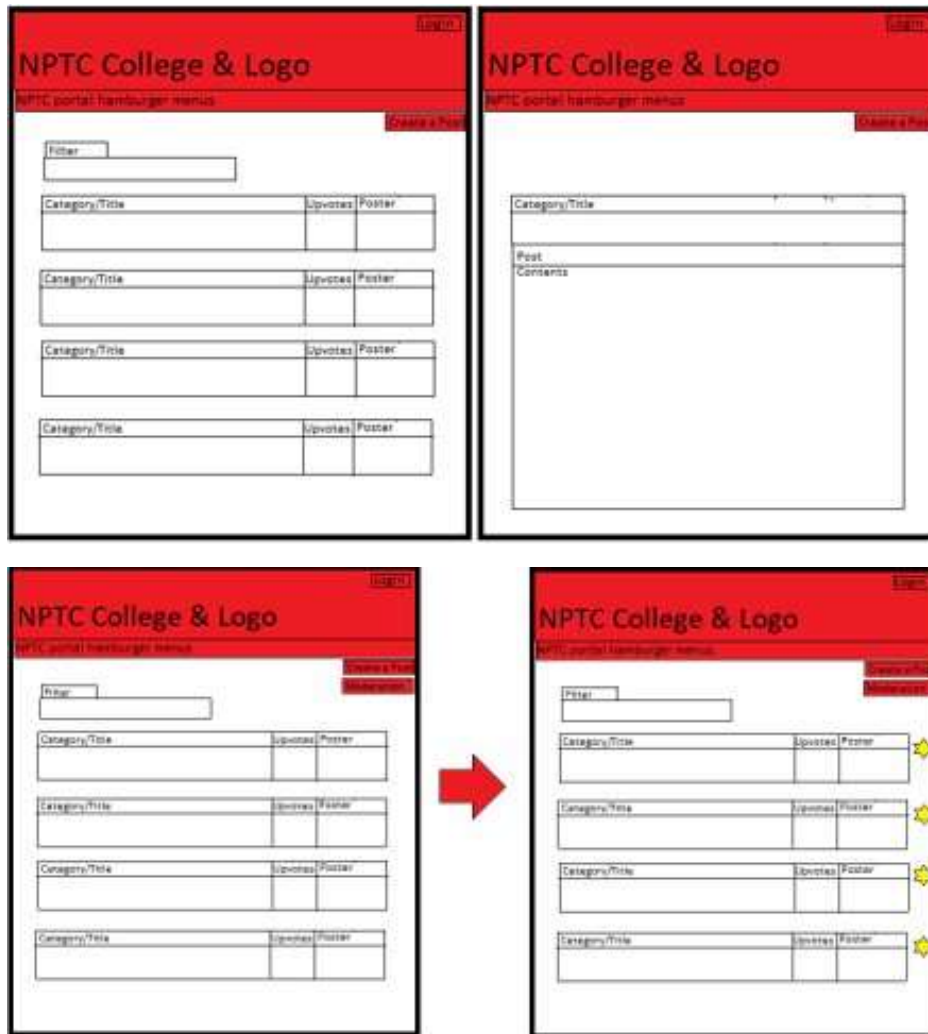
Requirements

The requirements specified previously were that “The client had used a forum in conjunction with ‘vocaleyes’.” and “concerns of moderation, login, and terms of use.” Although this is a brief description a lot can be drawn from this and from others which can develop the idea of what requirements are needed. These would be the overall functions and sections needed which are a login page, home page, page of forum posts, moderation and terms of use.

Then the login page and moderation would be furthered decomposed into additional needs for user groups of administrators, moderators and users which would of administrators being the highest in command on the website and consist of people in the computing department who maintain and manage the service with moderators being the same with less powers and consist of staff members or selected individuals to moderate and users being students. In addition, the moderators and administrators would have the ability to edit and delete posts and user details, while users can edit and delete their own posts. Then the home page would consist of a welcome message with useful information such as showing number of users, number of topics or posts and the categories or commonly known as tags are used and what they mean. Then the forum post page would consist of other posts to view and reply to posts and the ability to create posts with which the ability to add categories to it, title and the main body of writing of the posts.

System interfaces

The two images below showcase the initial system models. These are simple with a posting and moderation tools, of deleting and editing.



The forum stayed the same as design was improved upon, but new additions were made instead of having a button to press to open moderation tools it would be linked to user level and only display on level. Then also to improve the forum experience the introduction of categories were used, although simple they provide information that may not be initially present like what the forum is about without reading it. These would be added and managed in their own page by high-level users to ensure that it is not abused.

Category
Text

Another simple yet useful improvement was the introduction of login pages that do not require much visual or input except login details to proceed to the content.

Implementation

Problems and Successes

The success of implementation is that using the method of splitting tasks down into their own sections allowed for me to really focus on specific sections at a time and really hone on it allow me to produce it a better rate that can be used and with the code being more understood as I have spent specific individual time on it. Then another is the use of vendor or third-party creations and such to reduce code time by allow them to take over some of the code as there is no need to reinvent something that is invented instead use it to benefit.

The first problem encountered was with combining initially the forum page did not work correctly and posts would not update unless manually added into the XAMPP MySQL database and was fixed by the rebuild that section regarding how it is used with the database, with the code be rewritten. Then being entirely honest about the design process and creation it was initially hard and as it went on it got easier as I learned new code and looked at other examples.

Software Testing

The testing below covers automatic testing in the 1s and specific tests in other numbers with different numbers representing different sections.

Test Case 1.1– Validation

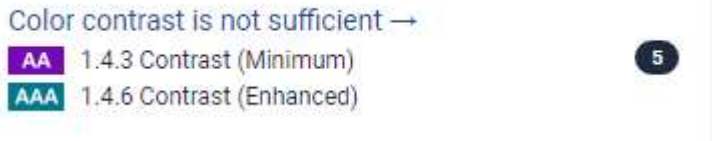
<i>Test Description</i>	All links on the site should be fully functional
<i>Testing Method</i>	Use validity to check validation
<i>Expected Results</i>	No validation errors
<i>Actual Results</i>	No validation errors just warnings
<i>Action Needed</i>	
<i>Retest Results</i>	
Test Case	1.2– Browser compatibility

<i>Test Description</i>	All links on the site should be fully functional
<i>Testing Method</i>	use on other commonly used browsers of edge and Firefox
<i>Expected Results</i>	Works
<i>Actual Results</i>	works
<i>Action Needed</i>	
<i>Retest Results</i>	

Test Case 1.3– Mobile compatibility

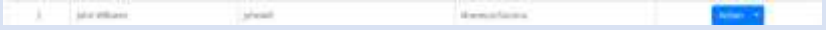
<i>Test Description</i>	All links on the site should be fully functional
<i>Testing Method</i>	low resolution screens
<i>Expected Results</i>	Works
<i>Actual Results</i>	works
<i>Action Needed</i>	
<i>Retest Results</i>	

Test Case 1.4– Accessibility

<i>Test Description</i>	All links on the site should be fully functional
<i>Testing Method</i>	Use Site improve accessibility checker
<i>Expected Results</i>	No issues
<i>Actual Results</i>	
<i>Action Needed</i>	None these are minimal issues as it talks about white colour on blue background
<i>Retest Results</i>	

Test Case 2.1– User Creation Testing

<i>Test Description</i>	All links on the site should be fully functional
<i>Testing Method</i>	Creates user and login with user

<i>Expected Results</i>	Works
<i>Actual Results</i>	Works 
<i>Action Needed</i>	
<i>Retest Results</i>	
Test Case	2.2– Forum Creation

<i>Test Description</i>	All links on the site should be fully functional
<i>Testing Method</i>	Creates a post
<i>Expected Results</i>	Works with editing
<i>Actual Results</i>	Works
<i>Action Needed</i>	
<i>Retest Results</i>	
Test Case	2.3– Category Creation

<i>Test Description</i>	All links on the site should be fully functional
<i>Testing Method</i>	Creates a category
<i>Expected Results</i>	Works with editing
<i>Actual Results</i>	Works
<i>Action Needed</i>	
<i>Retest Results</i>	
Test Case	3.1– Filter

<i>Test Description</i>	All links on the site should be fully functional
<i>Testing Method</i>	Filter works on tags, text and title of posts
<i>Expected Results</i>	Works
<i>Actual Results</i>	Works
<i>Action Needed</i>	
<i>Retest Results</i>	

Iterations

The time boxes used follow the Gantt chart that was created, but this is more focused on what has occurred. This looks at the specific tasks that are completed. This covers the specific design and coding of the project in their own modules.

Tasks	Monday	Tuesday	Wednesday	Thursday	Friday	Saturday	Sunday	Weeks
Design	2 hours							4
Login Page	2 hours		1 hour					2
Forum Page	2 hours		1 hour					2
Combining							2 hours	2
Category						2 hours		2
Moderation tools			2 hours					2

Evaluation

Questionnaire

The first two questions cover general data that being age group and gender. The first questions covers age, the majority of participants are between 16-25 which fall in line with what is covered and the goal of project particularly students which usually fall into this age range. The second question of gender shows that the majority are male participants. This would show that my questions show that males have a keener interest about forums.

The next two question covers access and usage, The third question covers how often users use forums and it shows that the majority of users use it daily or multiple times a week. This shows that for my target audience the best applicants are younger users who have more time on their hands or that they use in the off time perhaps. The fourth question is the access and majority of users state that they use PCs, laptops or phones to access forums.

The next two questions cover why they use it and what they think forums should be used for. The fifth question covers what they use it for with majority getting news or entertainment from their usage of forums while a minority use it to get help with work, this shows that in an educational setting that news could be applied as news could be about the college or certain classes while the information about the minority using it for work shows discouragement in using it in an educational setting. The sixth question covers why users would use a form and they state that it is mainly good to find answers and to share information which is highly applicable to this project and helps reinforce the goal.

The next two covers if forums are good and why. The first is if they are good with the majority of individuals stating that they are good and then onto why it shows that again the source of information is brought up which follows what is stated previously.

The last three cover using educational services and forums. The first covers if they are suited for forums and it was majority yes. Then onto why they think that for the majority it is because of the

ease of communication and share of information again which makes it applicable to for education in their eyes while the majority of the no opinion state that it removes the interactivity that places like university and college provide and removes the reliability that one-to-one interactives give. Then finally unto any benefits or drawbacks they can think of a using it in the setting and with most benefits covering that it facilitates sharing and that encouraging the knowledge they can gain quickly from others while negatives suggested are plagiarism and lack of in-person communication being bad as the online communication is slower when they need it.

Aims and Objectives

The aims and objectives were met. The aims and objectives of the first one was met as it was to establish secondary research and constructed a project, conducted a literature review and researched different coding languages. Although these have been completed one was not completed, the objective of implementing the terms of use policies upon the website and this may not have been implemented but research was conducted and this is something that would be included upon the final product and by extension what should be included is outlined while implementation is not it does show partial completion.

The second one was fully completed as it was targeted around primary research with using questionnaire and using that to establish the average users' opinion which was achieved. Then the third and final aim and objectives were met as they were the analysis and evaluation of the project and primary research as well as future improvements.

Conclusion and Recommendations

Conclusion

The overall project was conducted by firstly work that was covered initial started with a literature review covering the history and features of forums as well as usages, this was done though the usage of secondary sources. Then unto the design this was done by using existing designs as well as new designs though up hoping to find a usable environment while taking features of pre-existing forums so to offer familiarity. The implementation process had no key feature to showcase other than development issues that were overcome and finally evaluation shows no misconduct among individuals showing them diligently completing the form.

Recommendations

The conclusions that can be drawn from the questionnaire are that firstly that forums are typically a male orientated process although this is a small sample size it can show who are the primary uses expected to be. Then also upon the primary users it is expected that for this it is entirely centric on younger audiences but that is who it was aimed towards and as such is not a metric to consider highly in review. The majority of individuals using it to share information and use it for projects shows suggestions that support the idea that forums are useful in an educational setting as sharing ideas and discussion are key for individuals to learn, which is reiterated through which reinforces the idea that forums are always a good source of information if its similar interest or learning. Then additionally the idea of a forum to individuals seem to be a place of news or work that is supported by the sharing of information this is what the aim of the forum is and follows this which helps suggest that the implementation is a success which was a consistent finding in the responses. Then further it seems that users suggest an encouraging motivator in using forums as out of the two majority of PCs and laptops compared to phones, phones are larger and as such the portability may be a factor in if a person will use the forum and as such websites and apps should aim to be phone

compatible as these users are more likely to suggest that forums are positive effect and as such expected common users.

Reflection

Positive

The merits of doing this project were that for primary research the questionnaire is easily given out to masses of people through the use of services as stated previously in the begin of this dissertation. Then that this is also entirely free for me to complete as all services used were free to use which is a benefit for me showing that in the future different studies can be completed following the same method and not cost anything. The usage of a questionnaire as a main form of information collection allows for multiple services online to carry out this process as well as services and feature to quickly distribute this among many people on a large or small scale, especially due to the covid-19 pandemic meaning that this is a greater merit. The questionnaire allows for the implementation of both qualitative and quantitative data and as such providing in a varied amount of data that can be used and analysed from the collection providing with an increased amount of validity and reliability to the analysis. This also ties into the presentation of the data as google forms allows for the creation of answers on the responses page allowing for easy and quick visualization of responses and the custom creation of graphs and charts. The accessibility of code allows for the usage of segments as a lot of code has been tested before and if errors occur within this one, it is likely that someone else has had that problem, as there has been years of development and errors and issues are likely to occur

Negative

Then some pitfalls of doing this project are fact that the questionnaire allows for both qualitative and quantitative means that the amount of data that is analysed is varied due to both types included. This means that the qualitative sections take much longer to analysis and create an idea form it as well as the fact that due to this not being in person it becomes much harder for an individual to provide their emotional or feelings about a subject or area due to not being face-to-face. This qualitative data is also much harder to turn into quantitative data for a more uniform look and easier understanding of data as it is more detailed and unique from one another. The topic of information looked at for secondary research was not strictly related to this field and as such majority of those papers were irrelevant to me for creation of secondary research. Then in primary research it seems that the majority of participants only have a basic understanding of this field and as such their data is not as detailed as I would like it to had been providing less analysis overall, though this does not mean the data is useless if they have no or little understanding of the field.

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Appendix

Video

[2022 03 18 17 14 10](#)



Ethics Form



Prifysgol Cymru
Y Drindod Dewi Sant
University of Wales
Trinity Saint David

ETHICS APPROVAL FORM

Before you complete this form, please take time to carefully consider the following questions:

Have you considered yet whether there are any problematic ethical issues in your proposed research project? If you have not you should talk to your Course Tutor or Supervisor.

Have you already completed an Ethics Approval Form? Yes – *then you do not need to complete this form*

No – please complete this form in as much detail as you can

Name:	Nathan Pascoe		
Project/Research Title:	How can the introduction of a forum allow for students to voice themselves more effectively		
Name of Supervisor:	John Williams		
School/Dept.	School of Computing and Information Technology		
Faculty:	Faculty of Higher Education		
Proposed Start Date:	2/11/2021	End Date:	18/03/2022

1. Summary of planned research *(please indicate below the purpose of your planned project/research, together with your aims, main research questions and research design – you should continue onto a separate sheet if necessary)*

Aim

To design and create a forum page for the usage by students for discussion or raising of issues, to evaluate if this is an effective way for students to voice themselves.

Objectives

- To conduct a literature review:
 - Establish History of Forums
 - Research common moderation used
 - Research the most common types of back-end and front-end coding
 - Establish how terms of use can be used
 - Research Login Requirements
 - How students are affected
- To develop a plan by the inclusion of work breakdown structure and Gantt chart.
- To develop a system that encompasses posts, posts responding to posts, users and upvoting to provide a place of discussion for students
- Evaluate success of the system as well as evaluate the primary research carried out
- Reflect upon and draw conclusion as well as propose future improvements

Deliverables

- Project Proposal
- Project Plan
- Project (Website Frontend and Backend)
- Project Report

2. Methodology (You need to be clear about the methodology you intend to use in your study; this could include any number of methods, so either tick those shown below (where appropriate) or put the details in the box marked *)

- | | | |
|---------------------------------------|---|---|
| ☐ Interviews | ☐ Participant Observation | ☐ Use of personal data |
| ☐ Focus groups | ☒ Questionnaire | ☒ Literature Review |
| ☐ Performance | ☐ Presentation | ☐ Other (state below)* |

3. Participants - Does your proposed project/research involve human participants?

- | | | |
|--|---|--|
| ☒ 1. Yes, as a primary source* | ☐ 2. Yes, as a secondary source* | ☐ No- go to section 4 |
|--|---|--|

****If you have ticked yes, it is likely you will need an Advanced CRB check before undertaking your study***

If yes, indicate who your participants are:

- | | |
|---|---|
| ☐ Early years/Pre-School children | ☒ Adults - give details below |
| ☐ School age children | ☐ Vulnerable people - give details below |
| ☒ Young People aged 17-18 | <div>Students and Learners who attend the location of NPTC Neath College</div> |
| ☐ Unknown at this stage | |

4. Ethical issues - you should tick all that apply

☐

Administration of drugs incl. alcohol

☐

Deprivation

☐

Unpleasant stimuli in any manner or form

☐

Active deception or withholding information

☐

Collection of highly personal information

☐

Payment

5. Are there any ethical concerns other than those listed above? *(Continue onto a separate sheet if necessary)*

N/A

6. If there are any ethical concerns, please state how you intend to minimise any risk of harm or distress that could be caused *(continue onto a separate sheet if necessary)*

N/A

You should enclose any materials (e.g. questionnaire, interview schedule), plus the Consent Form, and the Debriefing Sheet when submitting the Ethics Approval Form to your supervisor.

Student Signature: Nathan.P Date: 1401/2022

☐

Advanced CRB check required

☐

CRB confirmation received -
Date:- _____

☐

☐

Recommendation of approval given at Faculty Level

☐

Approval not given at Faculty level – forwarded for discussion at the next meeting of the University Ethics Committee

Comments:

Signature: (Assistant Dean/Head of School) _____ Date:

Faculty recommendation endorsed by the Ethics Committee

*Chair's
Initials*

Date