



Designing and Implementing Final Year Project *- with Success*

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Foreword by **DIRECTOR**

Associate Professor Dr Keoy Kay Hooi (Alan)
Director
Institute of Computer Science and Digital Innovation
(ICSDI)



Welcome to the Institute of Computer Science and Digital Innovation (ICSDI), UCSI University.

The Final Year Project (FYP) is compulsory for the diploma and undergraduate programmes at ICSDI. This Final Year Project Handbook (2nd Edition) is designed to provide students with a comprehensive guide for planning, implementing, and documenting project work in accordance with the requirements of the relevant academic programme accreditation bodies.

The goal of FYP is to provide students with the opportunity and exposure to apply and integrate the theoretical knowledge and principles taught in the programme, as well as to solve problems creatively in their final year project.

To maintain the high quality of education at UCSI, we have continuously provided our students with advanced skills, cutting-edge software systems, and industry-relevant teachings by ICT professionals. FYP allows students to demonstrate independence and originality while also planning and organising a project over a set period of time.

I wish to congratulate Asst. Prof. Ts. S. Kasthuri, FYP coordinator, and all ICSDI supervisors for their effort, dedication, and hard work in supervising the students and producing high quality projects. I hope that this FYP handbook will be set as an example and standard for many more FYP handbooks to be produced and will contribute towards producing quality research work by the students and excellent supervisory skills by the academic staff of the Institute.

Developing a prototype UCSI Social Network System

Chan Jun Wei, Kasthuri Subaramaniam, Shayla Islam

Introduction

During current technological age, people live in a period and age where data is only a button press away. People are influenced by data surrounding them. People needs to understand, read, and comprehend about it. That is the place where web-based media becomes an integral factor. Social media is one of the biggest elements that users live with and cannot ignore it. This proposal project title to be developed will be UCSI Social Network Website and the website is a social network website created solely for UCSI University students in mind to provide them a platform to communicate in a more casual environment. This project will make UCSI University students involve in more engagement with each other's.

Objectives

1. To determine the feasibility the connection between students of UCSI University.
2. To investigate requirement from University Students.
3. To design a system that consist features of many other existed social media website such as Facebook, Twitter and Reddit.
4. To evaluate the system that have been designed

Methods

The significant research methodology that developers mean to tackle by gathering information from users is to distinguish potential users who are bound to utilize which highlights in the system and to look for remarks and ideas, which can be urgent for the system. The questionnaire was picked because it permits quicker assortment of information from bigger informational collections. Subsequently, this can be utilized to assist developers with concentrating on client needs and needs. The review questionnaire structure will be sent to UCSI students arbitrarily from different courses to gather objective information for

application improvement. Diagrams will be utilized to evaluate quantitative information.

Results

Social network website is becoming a core factor in everyday life of a student. According to the results of survey many respondents have agreed that social network websites is an important factor when it comes to communication and data transfer. Social media plays a significant job in each student's life. It is frequently easier and more helpful to access data, give data and impart through social media. Tutors and students can be associated with one another and can take full advantage of these platforms to assist their learning and instructing.

Conclusion

Finally, the analysis and design of the new UCSI Social Network Website is based on requirement specification for students of UCSI to be able to communicate and bond with each other's. This system will provide students of UCSI university a platform to communicate in a more casual environment and understand each other better. The system consists of features such as posting images and statement, customizing their own profile, making friend request and searching for news and topic which are the criteria marked from the posted survey form. It is believed that the developer has achieved the objective of the project which is to provide a casual communication platform for students of UCSI University.

Data science: Data driven model to improve retail industry

Faris Khalid Quddusi, Shayla Islam, Chloe Thong Chee Ling

Introduction

The buying and selling of goods and services is known as retailing. It can also be defined as the timely supply of consumer-demanded goods and services at competitive and economical rates. In retail, there is a direct interaction with the customer. A food retail store is also called supermarket, hypermarket, grocery store and convenient store. Many countries have benefited from the business, and it is without a doubt one of the most rapidly changing and dynamic industries in the world today. It is a market of billions of dollars and contribute significantly to country's Gross domestic product (GDP). But unfortunately, even after begin market worth billions of dollars some supermarkets are being closed because of insignificant profit or even no profit. However, Retail stores can have an edge over other supermarkets by introducing data science in their store. To survive in competition with others, some mandatory actions are required to take such as reducing inventory cost, increasing product variety, and improving quality.

Objectives

1. To study the existing inventory management systems so that can identify the strengths and weakness of the current systems.
2. To develop an inventory management forecasting model
3. To determine the consumption of the products for the future and stocking goods up to the demand.
4. To analyse data and prepare an EDA report. EDA will identify all the insights and patterns that will help owners to understand the business and take better decisions.
5. To predict sales for upcoming weeks, months and even years so owners can predict achievable sales revenue and Plan for future growth.
6. To evaluate the performance of the developed inventory management forecasting model and compare it with the existing system.

Methods

To solve our problem and understand what business owner or people with knowledge in data science think about the use of data science in retail industry, we collected data from these types of people mostly. Our aim was to gain more understanding about their image of data science and its use in retail industry. To achieve our aim, we needed mixed methods approach. Our research is based on primary data collection. The survey consisted of 3 demographic details questions and 15 questions with a 5-point Likert scale response. The aim was to collect 105 responses. Participants were given google form link to fill in the survey, and 106 participants responded.

Results

Based on the survey question that have been distribute to people from this field and some random. It can conclude that most of the respondents agreed with our objective. According to the responses, Majority of business owners agreed that they also needed inventory management and to improve their sells.

Conclusion

All the objectives are fulfilled. Our objective solves majority of problems small business owners face daily. First objective was to find strength and weakness which was done with data analysing skill. Our second objective was also fulfilled we found the hidden pattern and some useful insights and provided some observation which can help to improve sells. We also developed sales forecast model to predict 2 years and 10 years sells. In last object we compared our predicted sells with the original sell. Which is aligned with the true values very well.

Driver Drowsiness Recognition System

Komarina Dinesh, Mohd Fikree Hassan, Raenu A/L Kolandaisamy

Introduction

Tiredness driving is the leading causes of car fatal accidents on the road. As a result, the findings and indicating driver tiredness is an important research subject. The majority of existing method are vehicle-based, behavioral-based, or physiological-based. Few approaches are disruptive and distract the driver, while others need the use of costly sensors and data processing. As a result, in this work, a low-cost, real-time driver tiredness detection system with satisfactory accuracy is built. A webcam captures the video in the designed system, and the driver's face is detected in each frame using image processing techniques. Facial landmarks on the identified face are highlighted, and afterwards the eye aspect ratio, mouth opening ratio, and nose length ratio are computed, and tiredness is recognised based on these values using established adaptive thresholding. We used Machine learning algorithms for classification. we used SVM , Bayesian Classifier for classification .We used 2 algorithms because to compare which algorithm has high accuracy.

Objectives

1. Detecting eye closing, yawning and head bending by detecting these we can solve the drowsiness problems.
2. Giving alert by alarm sound when the system found the driver is drowsy
3. Getting high acceptance rate from the users/testers
4. Portable

Method

Research methodology in this project is quantitative methodology. In quantitative data collection, the survey will be spread to popular social media to collect information and generalized the information collected. The questionnaire was chosen because it allows faster collection of data from larger data sets. it will help us to know what actually people needs and wants. The survey will be carry out using Google Form and will spread via the WhatsApp, Facebook, Instagram, TheCN.

Results

Accidents due to drowsiness is very high. Especially for late night drivers who drive a car or heavy vehicles. By this system we can reduce the accidents caused by the drowsiness. So, by using this system whenever the driver feel drowsy this system will detect and alert the driver.

Conclusion

This study proposes a less-cost, real-time Vehicle driver sleepiness monitoring system based on visual behaviour and machine learning techniques. Visual behaviour features such as eye aspect ratio, mouth openness ratio, and length of nose ratio are estimated from Video streaming taken by a camera in this case. To identify driver tiredness in real time, an adaptive thresholding technique has been used. The designed system performs flawlessly with the provided synthetic data. Following that, the feature values are saved, and machine learning methods are employed for classifying.

Development of Web-based Attendance Management System

Abdus Salam Sakib, Abdul Samad Bin Shibghatullah, Raenu A/L Kolandaisamy

Introduction

In most educational institutions the attendance is taken manually. It is not only time consuming, but it is also unsecure and unreliable, and it can be lost. Some institutions are using punch card for attendance while this will be difficult for teachers to keep track of the large number of students because by using punch card, a student can help the other students or his/her friend to punch their card even the other student may be absent or come late in class, so it is not reliable. To overcome these problems, I have developed a better system which is Web based; it is fully responsive where a user can use in mobile, tablets and different computer systems. In this system records are kept safe and secure and the attendance information of particular or all students of particular class can be accessed easily and without time consuming, the report is generated automatically. Before all the technologies were introduced to take attendance for students today, lecturers were using papers as an attendance sheet and passing it around the class for students to sign the attendance sheet. As the manual way of taking attendance is inefficient as it might take some time for all the students to take attendance, which can result in students needing to stay back after class just to sign attendance. Besides that, lecturers have to prepare a new attendance sheet for every class and can waste unnecessarily a huge amount of paper.

Objectives

1. To study on current technologies for attendance systems.
2. To design and develop a web-based attendance system
3. To evaluate the effectiveness and ease of use of the enhanced Web-based Attendance Management System through conducting user acceptance testing on the system.

Methodology

The evolution of technology used to take attendance has allowed many industries to benefit from it, allowing easier monitoring as well as reducing the time taken to record the attendance accurately of a certain person. There are many types of technologies that are developed to be used today, which include biometric

technology, Radio Frequency Identification (RFID), barcode identification, and Bluetooth technology to record the attendance of staff of students.

Conclusion

In this work, the web based attendance management system is developed using PHP server-side scripting language and CSS, HTML ,JavaScript for designing which is fully meet the system's goals. This system overcome many limitations incorporated in attendance, this system saves a great amount of time and reduces errors which may occur during attendance calculation. The system I have developed is fully responsive which can be used in mobile, tablets and different operating systems. Some other benefits include automated and web-based for easy accessibility, a dynamic and flexible system, it excludes paperwork and the possibility of making mistakes while using paper for taking attendance, it is very user friendly and handy and the records of current and previous can be available immediately.

Online Hotel Reservation System

Richard Ha Rong Heng, Shayla Islam, Raenu A/L Kolandaisamy

Introduction

Nowadays the young generation loves to travel and stay. Hence, the hotel booking that the client done should not disappoint them. Hotel booking system (HBS) is something to provide clients of hotels worldwide to book a reservation without having to physically walk into the facility. Recently, the HBS is getting more and more. However, the quality of the system and interconnection with another system is very different. Another reason that people against using the online booking is that they do not wish to disclose their personal information as it must be given. Thus, this is important for the hoteliers to be alert to these so that assured and satisfied customer would come back. As a result, the customer will spread the positive words about the hotel to the third parties which improve the behavioural intention to use the system. The disclosure information also an important part in business as it helps to achieve potential income management.

Objectives

1. To develop and design the database that stores all the booking by the userID and room types.
2. To saves time for user when they arrive to the hotel.
3. To develop the system that will be no errors in booking and there will be no conflicts that is being created.
4. To develop correct information for the people when they are seeking the hotel room that is available.

Methods

Through this developer, we will be collecting data from the different people through online. It will help the developer to see what needs to be improve and will start doing the code out. The questionnaire was chosen because it allows faster collection of data and as pandemic is still happening, people will want to answer things easier. This will help the developer needs and wants. The survey

form will be sent to different people out there not just in UCSI so that it will have a better data for the development. There will be chart in this data too.

Results

The results of the Online Hotel Reservation system have been out. Everything is working well and all the button can be press. When the user login it will prompt you to the different menu. As the user type the data in there, the data will be save in the database which is in phpMyAdmin.

Conclusion

In conclusion, the system can be carried throughout the projects in many stages of the development. In the future, this project can implement more features which is not in the Online reservation system now. The following features are considered to be improved in the upcoming system: register button in login screen, multiple languages in the system, more pictures in the system to get attractive, able to use credit or debit card to pay button and able to show the transaction of the payment.

Android Application Development for Online Property Rental Services

Saeed Ul Karim Siddiqui, Shayla Islam, Kasthuri Subaramaniam

Introduction

The role of housing in impacting people's livelihood is immense. It helps in growing and revitalizing the economy. The real estate market is one of the most valuable markets in the world as shelter is a key indicator of development. People come from various places to find jobs, shelter and everything vital. For finding shelter, most of them have to go through a hassle to find an accommodation that suits according to their needs. With the development of technology in the recent years, numerous online websites and applications have appeared which contribute to renting of homes and properties. This helped alleviate the burden of people having to find homes the conventional way. It also helped save time as this whole process is fully online and requires a suitable device to browse or run the platforms.

Objectives

1. To investigate the main features and limitations of current systems
2. To design and develop a prototype on real estate application for target users.
3. To evaluate the performance of the developed property rental service application by conducting survey on the user experiences after it is completed and compare it with existing applications.

Methods

The major research problem that developers aim to solve by collecting data from users is to identify potential users who are more likely to use which features in the system to turn on, and to seek comments and suggestions, which can be crucial for the system. The questionnaire was chosen because it allows faster collection of data from larger data sets. Hence, this can be used to help developers study user needs and wants. The survey questionnaire form will be sent to UCSI

students and people from other institutions randomly from various backgrounds in order to collect objective data for application development. Charts will be used to assess quantitative data.

Results

Rental applications and websites are very popular, especially among tourists and young people. While developed countries adopted the technology early, emerging economies were quick to embrace it. People all around the globe are now familiar with Airbnb, OYO and other platforms because of their contributions. Tenants and landlords have both benefitted from this. According to the survey customers are looking for better ways to rent out more flexibly, such as monthly renting and daily renting. Customers want loyalty programs to get better incentives. Most think that the rise of online booking platforms will provide more opportunity to everyone.

Conclusion

Finally, it can be said that the system has been carried throughout the project's many stages of development, resulting in its effective establishment and achievement of the project's primary objectives. The main objective was to study current booking platforms in Malaysia and then to develop an android based application to use in Malaysia and in select countries. The system was developed after getting to know the students need through survey questionnaire. The studying of existing systems and literatures is a small step towards filling a discovered gap when it comes to developing an online booking system for everyone. The prototype system was successful built runs perfectly fine on android mobile devices. More additionally, further research would lead to the development of better versions of the product. Knowing the needs of customers who use booking apps will change over time, it can guarantee the improvement of current problems of applications modern day booking platforms face.

Uniform Image Enhancement Method via Linear Transformation in HSI Color Space

See Shin Yue, Mohd Fikree Hassan, Abdul Samad Shibghatullah

Introduction

As information technology advances, image processing technology has become more interwoven into our daily life applications. However, owing to unanticipated circumstances, the images acquired may have limited visibility and make it difficult to distinguish features. The basic purpose of image enhancement techniques is to develop and generate an ideal image with excellent quality and visibility by combining color space and other improvement method. Various ways of augmentation had been offered, each with its own set of advantages and disadvantages. The vast majority of them are flawed in some way. That is why various people from all over the world continue to propose improvements to the method in order to make image enhancement more perfect and accurate.

Objectives

1. To create a computational formula/method to perform color correction to an image.
2. To create a computational formula/method to improve the image contrast of a low-light image.
3. To evaluate the effectiveness of the method via image quality assessments

Methods

This project proposes improving the image enhancement method by creating a color improvement function to perform the enhancement on the low-light image. Before moving straight into the image improvement procedure, the HSI color space conversion will be conducted with the goal of doing image enhancement based on human visual perception. Continue with the image enhancement process, the enhanced image will be created, and the RGB color space will be converted and displayed. An image quality assessment (IQA) evaluation, which comprises

subjective and objective evaluation, will be used to grade the performance of the image enhancement technique in order to assess the efficacy of the improved picture generated by the existing and suggested image enhancement methods.

Results

The enhancement procedure was broken down into several steps. First of all, to keep the image tone consistent, the low-light image will be converted from the RGB space to HSI color space. Then, analyze and compute the total linear factor. Continues with the adjustment of saturation and intensity component's coefficients, by considering the connection between the various components. The hue component in linear transformation adjustment process should always remain unchanged to avoid color distortion in the adjustment process. The quality and visibility of the final image should be improved as predicted after the improvement. Lastly, converting back the tweaked HSI model parameters to the RGB model. The computational formula used in the linear transformation adjustment process had been described and explained in the project.

Several low-light images retrieved from the TID2013 image database will be used for testing material during the evaluation phase. During this time, the two existing image enhancement methods proposed by Dong et al and Li et al were also investigated and included in this project. Since each enhancement method uses a different formula to do the enhancement, these low-light photos from the testing material will be processed and enhanced by each enhancement method in order to assess their efficacy and performance. The various evaluation metrics had also been studied in the project and used to rate the quality of images and performance of each image enhancement method.

Conclusion

In a nutshell, the proposed image enhancement method was developed, which resulted in producing a high visibility and quality of images. Throughout this enhancement process, the main objectives of this project had been achieved, which was to create a computational method to perform color correction to an image. Moreover, the project also accomplished the objectives in improving the image contrast of a low-light image, since the overall brightness of the images had been improved after the enhancement process. Later on, this project also studied on different image quality assessment (IQA) that proposed by numerous researchers that are used to rate the quality of the enhanced image, meanwhile

evaluate the performance of the image enhancement method. In this project, all the enhanced images produced by the 2 existing and proposed enhancement method had been validated and evaluated from both subjective and objective aspects using several IQA criteria. The evaluation result had been shown and proved that the proposed enhancement method preserves the image features, chrominance, and structural similarity of the enhanced image, and at the same time, minimize the chance of brightness and visual distortion.

MathCoach - Gamification of Online Quizzes

Syed Kumail Abid Ali, Kasthuri Subramaniam, Abdul Samad Bin Shibghatullah

Introduction

We have entered an era where education can be accessed from literally any corner of the world, all one needs is access to a stable internet connection and they can get every single bit of information available in the entire world. In this age of online learning, universities have started to become less relevant, and that degree holds lesser value (in specific fields of interest). Intrinsic motivation is one of the biggest factors that makes people actually want to do something without finding an external reward for that specific action/task as the task itself becomes the reward. If we were to figure out how to generate intrinsic motivation in students in school, we could solve a lot less time trying to force children, even adults, into learning something they would not want to and just allow them to have fun while also learning at the same time. In our research we found out the link between gamification and intrinsic motivation, we learned that games (board games/video games) often provide people with a sense of accomplishment that motivates people to play more, and they do not look for any external reward for playing, as playing the game is the reward in of itself. This paper is about the application of gamification into traditional quizzes and quiz based websites, while also challenging the moral implications that come with it.

Objectives

1. To study Intrinsic motivation and its links to video games and gamification.
2. To design a website that integrates gamification for students all around the world.
3. To develop the bare minimum functionalities that turns a quiz into a game.
4. To allow students to learn as they have fun.

Methods

The methodology chosen for this project is the Rapid Application Development (RAD) because it is the best choice for my project as it covers exactly what the researcher needs to accomplish my project requirements. The four stages described in RAD are perfect for the development of my project as it encompasses my time requirements and since the researcher will be the sole developer of the project, it gives the researcher more space and freedom to work with. We also asked a hundred people fifteen survey questions to further aid our research.

Results

Based on the survey results that the researcher distributed all around the globe, it is assumed that students all over the world want a website that lets them get the education they want while also having fun. The responses also showed that the idea that the researcher is trying to accomplish is received with an enormous positive attitude, this further encourages the researcher to pursue the development of this project. This development of this project will allow the researcher to create a prototype for the people to test and experience that will in turn give us more information that can be used to develop the same project on a larger scale.

Conclusion

To conclude how important intrinsic motivation is for students who are trying to learn, and how gamification is one of the best means to create more intrinsic motivation in areas where it is hard to find/generate. The website allows the user to practice their mathematical skills while also having fun because of its game-based design, and its simple yet aesthetic user interface makes it quite easy for young students to use the website without having to learn any of the ins and outs of the interface. The researcher also concluded, after analysing many different opinions, that MathCoach has a long way to go. There is plenty of room for improvement, we can add more grade levels with even more challenging questions for the students and improve the user interface even more. The same methodology can be applied to create even more websites that are similar to MathCoach but for different subjects. This was a very successful project in the eyes of the testers and the researcher and further research and development will only lead to more improvements.

Mobile Application MoBiLearner for Government and Private University

Makhmudov Shakhzodbek, Raenu A/L Kolandaisamy, Chloe Thong Chee Ling

Introduction

For the last two decades, the popularity and significance of smartphone devices is growing tremendously day by day. Smartphone gadgets have grown in popularity and importance tremendously during the previous two decades. These digital devices have evolved into an important tool that provides exceptional access to educational materials, content, resources, data, and services. During the pandemic, online learning has become an important aspect of education and learning. The demand for an online learning platform that can seamlessly replace physical classes while also providing quality education and carrying out daily academic activities of learning anywhere and anytime using available tools and devices is a must-have platform for any educational institution or organisation. This application will give users access to course materials such as slides, tutorials, supplementary course-related research papers and books, video recordings, and access to the class via the Microsoft Teams platform, as well as all other relevant course related study materials. Users just need a validated account and permission from the administrator to access the particular course, and they can complete their academic studies utilizing their smartphones.

Objectives

1. To determine the strengths and limitations of similar online learning applications.
2. To design and construct an online learning application for users that is both user-friendly and accessible.
3. To give application users with the most recent and up-to-date course study resources.

Methods

The methodology that will be used to build the system is called the Incremental Build Approach. This method was chosen over the traditional waterfall method because of its flexibility. The method's flexibility, speed, and responsiveness can allow the development of high-quality software quickly. Random students at UCSI University were requested to complete 11 questionnaires, each with three sections, using the Course Networking platform, and a total of 91 responses were obtained.

Results

The online learning platform is necessary to ensure that students have access to all academic materials at all times and from any location. Various types of LMS applications and platforms have emerged as a result of the use of the most recent developments in technology to ensure market competitiveness. According to the results of the survey, students and academic staff would prefer to have a single application that could handle the majority of their daily tasks. According to the survey, 91% of participants would like a modern and functional LMS application on their smartphones to help them learn more effectively and interact with the university and their respective faculties.

Conclusion

At last, the goal of this study was to create MoBilearner, a mobile learning application for both government and private institutions that can significantly improve students' academic lives by assisting and providing all necessary study materials such as course information, syllabus, lecture and tutorial slides, additional resources such as books, class video recordings for future reference, course assignments, and sample quizzes. The developer followed the necessary steps of the software development lifecycle (SDLC), as well as feasibility studies, requirements collecting, and validation processes, to ensure that all of the project's scope and objectives were satisfied. During the following phase, the overall structure was elaborated together with modelling diagrams and the technology that will be used was selected as well as the database and programming language of choice.

Contactless Employee Management System with Face Mask Detection

Ong Jun Liang, Javid Iqbal Thirupattur, Abdul Samad Bin Shibghatullah

Introduction

The need of social distance and non-contact practices was highlighted by the COVID-19 epidemic. Even after the epidemic has passed, everyone should follow the same hygiene procedures. Institutions must take preventative steps before allowing individuals to return. Employees' presence may be marked, and their health status can be monitored. This proposal focuses on using sensor fusion and face recognition technologies to create a contactless personnel management system. Employees entering the institution are tracked using the system's image processing capacity. At the entryway, a body temperature sensor collects information on each employee's health. To identify whether someone is wearing a mask, the device employs internal cameras and deep learning algorithms. The goal is to verify an employee's identity and see if they follow the institution's standards. The system was designed for ease of use, cheap installation costs, and low maintenance. The software maintains track of employee health data and uses it to follow up on information.

Objectives

1. To study the use of touchless temperature scanning, facial recognition, mask detection, and other technologies.
2. To develop attendance management with fingerprint verification and touchless facial recognition system.
3. To evaluate the effectiveness and ease of use of the enhanced Automated Employee Management System.

Methods

The main research challenge that developers hope to tackle by gathering data from users is to identify potential users who are more likely to utilise which

system features to turn on, as well as to solicit opinions and ideas, which can be critical for the system. The questionnaire was selected because it enables for faster data collecting from larger data sets. As a result, this can be used to assist developers in researching user needs and desires. The survey questionnaire form will be sent at random to UCSI students from a variety of backgrounds in order to acquire objective data for application development. It will also be shared on CourseNetworking in order to reach a larger audience. To evaluate quantitative data, charts will be utilized. There will be a total of 16 survey questions asked in two sections, with a total of 100 responses collected.

Results

Based on the survey question that have been distribute to random students in UCSI University. It can conclude that most of the respondents agreed on the importance of having a face mask detection software within an Employee Management System. According to the responses, most of the respondents have agreed upon the lack of COVID-19 compliance in most employee management system. This project will bring a great help to industries to understand that employee management system should be protecting employees by limiting the spread of Covid 19 strains in the workplace so that workflow won't be disrupted. Touchless Temperature Scans, Facial Recognition, Mask Detection, and other useful features help improve workplace safety.

Conclusion

Finally, it can be said that the system has been carried throughout the project's many stages of development, resulting in its effective establishment and achievement of the project's primary objectives. The system was developed after getting to know the students need through survey questionnaire. The studying of existing systems and literatures is a small step towards filling a discovered gap when it comes to developing face mask detection. The prototype EMS was successful built runs perfectly fine on a web browser. The contribution of the system allows employees to be aware the need of social distance and non-contact practices within a workplace and highlight the existence of COVID-19. Thus, they can see the total visit of a certain websites each day. So, users can monitor their health status and presence of mask when entering their workplaces. With this, it verifies an employee's identity and see if they follow the institution's standards.

Developing Mobile Application for a Localized Donation System -SeekandHelp

Nan Pepin, Abdul Samad Bin Shibghatullah, Kasthuri Subaramaniam

Introduction

The advancement of information technology is fuelling a new revolution, which would be manifesting itself in the transformation of human work systems from the traditional to the digital eras. However, the natural urge of human beings to help one another and to help one another has always led people who seem to be self-sufficient to be willing and able to help one another, one of which is through charitable contributions. Even during this Covid-19 pandemic, an online charitable donation has emerged as one of the most important applications today when it comes to quickly providing funds to those in need. The use of online charitable platform is very beneficial to the community in that it allows them to channel information about donations and make it fast without having to meet in person. Usually in online donation, the donation given will be in the form of digital money.

Objectives

1. To study and review of existing donation systems
2. To enhance the proposed localized donation system
3. To design and develop a localized donation system
4. To evaluate and test the proposed localized donation system

Methods

The modified waterfall approach was used to work on this final project in the Software Development Life Cycle (SDLC) stage, which included analysis, design, coding, testing, and deployment. The stages completed in the preparation of this final product are only up to the testing stage. The modified waterfall method was chosen since it is adaptable and versatile in terms of project development. Follow-up activities are carried out in this model to develop this project. This modified waterfall model, which differs from the standard method

in that it can be reversed and confirmed if modifications need to be made, can return to the prior phase. This model was chosen because the phases are parallel, with the output of the first phase flowing linearly into the second phase, and so on. It's also simple to track the progress of this modified waterfall model.

Results

Result from the findings of the study, the average male gender respondents who live in the city are more likely to be unemployed than the average female gender respondents. From the perspective of donors, the results show that they are more likely to donate in person than they are to donate through other methods because, the results show that, the trust are issues that they take into account when making donations, leading them to choose to donate in person rather than through other methods. In addition, the result of the survey, while none of the respondents had actually used a charity application on their smartphone, they all agreed that applications that allow people to advertise donations or requests are highly useful to have on hand.

Following the completion of the systematic review and data questionnaire collection, some of the findings will be applied to the currently proposed Application, SeekandHelp, in order to make improvements to the application. Furthermore, improvements in terms of location are made possible by the use of location-based services powered by Maps, which allow users to locate the whereabouts of other users directly from their phones.

Conclusion

In conclusion, the objectives of the research project are clearly outlined in the methodological procedure, which is used to carry out the whole process to resolve the issues found in the existing application. The aim of this project is to develop a user-friendly, simple and efficient charity app that runs on a mobile platform to help all users advertising for help or donation according to their need. Systematic reviews and studies of existing applications and systems and questionnaire have been conducted to determine the existing issues and analysis. The proposed application has been implemented using the Kodular builder Platform and is compatible with Android-based mobile devices. Although it is not perfect, it has managed to meet all the objectives and improve the user experience based on the feedback from the participants who participated in the user acceptance test.

An Android-based Attendance System using QR Code Technology

Mohammad Abdur Rob, Shayla Islam, Chit Su Mon

Introduction

In this age of innovation cell phones play an important role in our daily lives. These days cell phones can deal with most problems quickly and without problem. Done individual life is straightforward and simple with a variety of social uses, business application, issue to deal with the application, the application for training and advertising etc. According to the research about 67% of the whole world business has not adopt any digital system for the attendance system. It means that 33% of the business adopted and 67% are still using old system in this modern era. Another research claims that about 45% of business talks about the implementation of the system is difficult need more staff, which claim is true at some extent, but it is easier and automated system. Following the establishment of the paper aims at a program that will address the problem of recording attendees. Proposed the program is made up of two applications, one for generating QR Code input student intelligence and second application for recruitment and creation to CSV or XLS design. The teacher must filter the QR code of what is specified students to ensure their presence. The paper talks about how the system tests student personality to delete fake registration. The system controls administration once presence test, all things considered. Student QR code will be given to the teacher for their presence. The teacher in charge of the lessons is careful to stamp the presence of all the students in the meeting or class.

Objectives

1. To study the existing android-based attendance system so that can identify the strengths and weakness of the current applications/systems.
2. To design and develop an android-based attendance system with the robust and super technologies, that will be perform well in the market when they are deployed.
3. To evaluate the performance of the developed android-based attendance system by conducting survey on the user experiences after it is completed and compare it with the existing application.

Methods

The research method used in this project will be quantitative, and we will conduct online surveys. The quantitative technique will make it easier and faster to assess the difficulties. Because it allows for wider research, it can assess a bigger number of subjects, it improves generalization of data, and it can give much more accurate results. In general, quantitative techniques are intended to produce data summaries that support generalizations about the phenomena under investigation. To accomplish this, quantitative research often requires a small number of variables and a large number of cases, as well as the use of specified techniques to assure validity and reliability. Using standards means that the study can be replicated, analysed, and compared to another comparable research. The Questionnaire's has been distributed to the respondents via social platforms like CN, Facebook messenger, WhatsApp etc. A social media platform has been used for survey where google link has been shared with the respondents.

Results

- A QR code application created meets the user requirement
- An application that user friendly and easily to use
- A QR code scanner that can scan the codes quickly and accurately
- System that generates QR codes

Conclusion

It is necessary to stay up with the latest technologies these days, particularly in the realm of education. Educational institutions have been exploring for methods to use cutting-edge technology to improve the educational process. In light of the current scenario, we've considered utilising mobile technology to make the most of the full amount of time allotted for a presentation. Instructors' time spent taking attendance might be seen as a waste of lecture time, especially when classes are large. As a result, we've presented a method of automating this process by utilising the students' gadgets rather than the instructors. In other words, the instructor does not need to do anything additional during the lesson other than show the pupils the slides of the subject to be taught.

Impacts of parental control towards children in Malaysia

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Introduction

It's no secret that social media has become an integral part of our lives. It's a lot of fun, and it's a wonderful method to stay in touch with friends and family. But social media may also be quite perilous for youngsters and teenagers. That's why it's important for parents to exercise some control over their children's social media use. Study has found that the majority of parents believe that their child's safety is being threatened when exposed to social networks. In addition, most teenagers believe their parents are too restricting regarding their internet activities. So, it can be difficult for parents to find the right balance between giving their children freedom and exercising appropriate parental control. This isn't surprising, given that social media can be a breeding ground for cyberbullying and other harmful behaviour.

Objectives

Parents:

1. To determine the relationship between children's behaviours and parental control.
2. To determine the relationship between quality of social networks and parental control.
3. To determine the relationship between services provided by social platform and parental control.

Adolescents:

1. To determine the relationship between parental control and adolescents' feeling.
2. To determine the relationship between parent-child respect and adolescents' feeling.
3. To determine the relationship between level of social skills and adolescents' feeling.

Methods

To find out what our society needs, we have surveyed both children and parents. The survey form will be posted on Facebook and UCSI CN. Furthermore, we will also be going out to ask people to fill up the paper form. The major research problem that researchers aim to solve is reducing the intensity of parental control while increasing overall happiness for kids in order to make them happier with their lives. This can all be achieved by using questionnaires which allow us faster collection times than other methods such as interview, making it a perfect choice when looking at large data sets. Table will be used during data evaluation for quantitative data.

Results

Children's behaviour in using social media and services provided by social networks have shown a significant impact toward factors that affect the intensity of parental control. When the two independent variables decrease in value, we could see a reduction in the intensity of parental control. Besides, we also found that the intensity of parental control and social skills have the most impacts towards the happiness of children. For example, when the intensity of the parental control increases, the happiness of children will drop significantly.

Conclusion

In conclusion, based on this research finding, it suggests that parents should reduce the intensity of their control over the children. From the survey, majority of the children has no control over how long they can be on social media. Moreover, children who are being controlled aggressively by their parents tend to feel out of touch with their school friends because they cannot follow up with the topics their friends are talking about. Furthermore, we would also suggest that children themselves should first rectify their social media usage behaviours in order to reduce the intensity of parental control. For example, if children learn to have self-control over the time usage on social networks, parents will be willing to reduce the control over them. Besides, the services provided by the social network should also be improved. For example, if the platform itself is doing their job to take down inappropriate contents on time and provide an easy guideline for parents to set-up parental control, then the parents will not have to spend time on finding third-party application like Nanny to help them do the job.



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