CARL E. BALITA REVIEW CENTER ENROLLMENT HUB

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Abstract:

A CBRC Enrollment Hub is an innovative solution in processing enrollments for reviewers who are taking board exam. The study's goal was to develop a system that would give enrollee another way to enroll while making up for the facility lack of staff and time- consuming, walk-in procedures.

Keywords: Online Enrollment, ISO 25010

1. INTRODUCTION

1.1 Background of the Study

As an entrepreneur advocate, publisher of books, and educator, Dr. Carl E. Balita is one of the Philippines' most well-known figures in the business world. The Asian Wall Street Journal branded him as the man who can electrify crowds and get audiences on their feet. He is known as the "Entrepinoy Guru" in the Philippines. He is a successful businessman and a former president of The Philippine Chamber of Commerce and Industry, Quezon City, the largest and most prestigious local business group.

The founder's review experiences led to the creation of the Dr. Carl E. Balita Review Center (CBRC). While holding a position as a lecturer at the graduate school and nursing college of the Pamantasan ng Lungsod ng Maynila, the founder started working in the review industry in 1993. Dr. Carl Balita's thirty (30) years of review experience, six (6) years of university academic experience, and five (5) years as dean led to the creation of the Dr. Carl Balita Review Center in 2004.

CBRC is the largest, most-awarded, and ONLY ISO-Certified Test Preparation Center in the world. It was also named an Outstanding Filipino Franchise by the Franchise Excellence Hall of Fame. Its potential to deliver quality, consistency, superiority, integrity, and results demonstrates its unmatched track record. Hundreds of thousands of board passes and 356 topnotchers have both been generated by CBRC. With nearly 125 locations in key Philippine cities during the past 14 years, the corporation has maintained its dominance and international presence in places like Indonesia and Hong Kong. Canada, the Middle East, and Thailand.

The enrollment system is one of the most important and obvious mechanisms present in educational institutions and at lower levels of education. Potential students will be more likely to enroll in the Carl E. Balita Review Centre if they have a favorable impression of the institution due to an accurate and efficient enrollment record. An enrollment procedure is designed to give staff and faculty a way to record information that is necessary for enrollment since enrollment grows annually. The enrollment process grew more challenging as it went on.

According to Kamal Hasan Jihad (2018), it has been found that the manual approach has a number of drawbacks, including wasted time, data loss, and additional costs for recording student information. Additionally, there were delays in responding to students' questions and disregard for their discipline when allocating them to accommodations. The amount of data that needs to be recorded also grows. This just slows down the lecturers' and staff's ability to process confusion.

When lines of people form and the waiting period is extended, the enrolling process at a school becomes exceedingly complicated. The best method to solve this problem is through technological instruments (Marjorie Chamilco, Alex Pacheco, Cesar Pearanda, Edwin Felix, Mario Ruiz, 2021). A manual enrollment system requires extra time and effort, which slows down transactions. They now dread going to school because of the hectic enrollment process. Instead of complete it in an hour or two, students who enroll must wait. In some cases, students are required to come back the following day or even a week later in order to be considered formally enrolled. Students and parents who would wait in line for hours only to enroll and get paid would also find the process burdensome.

1.2 Objectives of the Study

The general objective of the study is to develop an Enrollment Hub for Carl Balita Review Center.

1.3 Specific Objectives

a. To design a system with the following features:
a.1. Account – The user needs an account so that they can have access to the system.
a.2. Enrollment – The student will enroll so that they can use the system.
b. To create the system using the following tools:
b.1. Java - an object-oriented, network-centric programming language for programming any mobile apps as well as software
b.2. HTML - the standard markup language for creating web pages
b.3. CSS - a computer language for laying out and structuring web pages
c. To evaluate the system using the following ISO 25010 features:
c.1. Functionality - The range of features or powers connected to
computer hardware, software, or other electronic devices.
c.2. Reliability - The probability that a system or component will operate as intended at any given time.
c.3. Usability – An overarching objective including both system functioning and UI problems.
c.4. Efficiency - The capacity of a system to reduce resource
consumption while optimizing performance and productivity.
c.5. Maintenance – The process of upgrading, altering, and changing software to meet the demands of users.
c.6. Portability – The ability to utilize the same program in many settings.
c.7. Compatibility - The capacity of hardware and software from various sources to cooperate without requiring modifications.
c.8. Security - Provide reassurance that, in spite of harmful attempts to infiltrate them, software systems operate dependable and securely as planned.

1.4 Scope and Limitations of the Study Scope of the Study

Dr. Carl E. Balita Review Center's website will have the suggested system installed, and the admin in the main branch will be creating the lecturer's schedule as well as other announcements. The admin also has access to all the branches and can view reports on enrollment, payment, dropped classes, and transferee. The staff at each branch will handle enrollment and admission as well as the distribution of all information and schedules, all the announcement is from the main branch. On the financial manager, the student will pay for the lecturer’s expenses such as food, transportation, accommodation, and professional fee, and for the Operational Expenses when they need to rent a venue, the lecturer’s fee, and all the expenses that the student needs to pay. The payment for enrollment it’s also under the financial manager who determines if it’s already fully paid, installment, transferee, or dropped. Lastly, the student who has permission to view their balance, schedule, and announcements.

The study's results rely on where the review center's branches are based. Its primary focus is on developing web-based systems. The suggested system will be installed at all the Carl Balita Review Center's branches since the main branch will act as the server for all the other branches. This is carried

out to gather the pertinent data that will be used for the overall design of the suggested system. Given that each branch's information is connected in real- time, the system will likewise be dependent on the internet. Once users have paid their center dues, the proposed method will allow them to view their information. As a result, the user will not need to physically visit the center to complete their requests. The study is limited in terms of its users. Only those reviewers and lecturers who have been verified by the admin can have and access their portal. To access your account/portal you must have an internet connection

2. LITERATURE REVIEW

2.1 Related Studies

The enrollment procedure at a school becomes extremely difficult when lines of people form and the waiting time increases. Technology-based tools are the most effective way to handle this issue. In order to optimize the processes that make up an enrollment administration, this project aims to build a computerized enrollment system. It made it possible for the institution and the students to collaborate remotely, reducing the time needed for enrollment procedures in a fair and transparent manner while ensuring that everyone had access to remote learning opportunities during pandemics. (Marjorie Chamilco, Alex Pacheco, Cesar Peñaranda, Edwin Felix, MarioRuiz (2021)).

For system users, the login form acted as a security precaution. A login history is additionally accessible to look up registered accounts. The system's backup data feature enables you to retrieve data that a user mistakenly deleted. This study aimed to streamline and expedite the manual enrolling process. (Jane Elizabeth Silaya, Genesis Lanuza, Joyann Cabatuando, Dharyljohn Rumbaoa, Alejandro Adovas (2020)).

To improve efficiency and ease of use, particularly for CBRC managers, an Online Registration and Computerized Enrollment System was proposed to supplement the existing Manual Enrollment System. The performance of the current system during enrollment and registration is the primary focus of the investigation. By storing the enrollee's file data inside a database, the developed system aims to retrieve and monitoring the data more quickly, easily, and safely while requiring less effort from the administrator. These details may be viewed instantly, so there's no need to worry about any specific data being lost. In addition, it offers online functionalities that make it simple and quick for users to access and submit data. The system was created with an emphasis on the data related to enrollment that has been gathered, which comprises records such as basic information. This will function as a document that was completed using a digital registration form that can be accessed online and offline. (Elizalde L. Piol, (2019)).

Reviewers want timely service as well as attentive care at every level. More than ever, prospects' selections could be significantly influenced by quick, precise, and pertinent information. This connects to the current enrollment system, which is the last step. The needs and motivations of candidates can be better managed by admissions committees when enrollment management tools are applied properly. From the first point of contact till conversion, the entire process is streamlined via a single system. (Meenu Joshi, (2021)).

Reviewers desire prompt service in addition to personalized attention at every level. More than ever, fast, accurate, and pertinent information may have a big impact on prospects' decisions. Finally, this interfaces to the current enrollment system. When used effectively, enrollment management systems give admissions committees better control over the needs and motives of applicants. From initial contact until conversion, the process is easy thanks to a consolidated system. (Jomar Abrillo, KristineJoy Palacio, Monica Capuz, Patrick Quintos, Laurence Maglinte, Engr. Joel Cajipe (2020))

Every student in every school eagerly anticipates the beginning of the academic year. It is the activity that is most looked forward to after the summer holiday. However, in contrast to the aspirations of the student registrants, it has led to problems and difficulties because it has become laborious and time-consuming. Other students frequently ask their parents and other family members to enroll them on their behalf. The school's disorganized admissions process is a major

problem now. The plebian dilemma happens during the enrollment period, when students must wait to be officially registered for the next day, often for longer than an hour. The researchers decided to look into and address the enrollment issue by developing and putting into place an enrollment system that would enable a smooth and less problematic flow of enrolment in Ilog Catholic High School because all of these presented a challenge.
Computerization is used as a control system in an industrial workplace to manage processes. It decreases human error and processing time, increasing productivity and allowing for the production of goods of the highest caliber. In information systems, computerization refers to linking procedures that complete significantly faster and more precisely than a human method. Ilog Catholic High School will be able to improve their enrollment process from what it presently has with the aid of this study. The system's supporters would interact with it so that Ilog Catholic High School's administration could gain access to fundamental knowledge on how to use the system. (Benny Salde (2019)).

Every semester, the manual advising and enrollment process has been ruined by the outdated "paper and pen" manner of processing student records. Bringing the level of student records into a structured manner was the system's main goal. With this mentality, it was expected that the system would subsequently improve how the institution conducted its enrollment operations (Greg Sambaan Campos (2019)).

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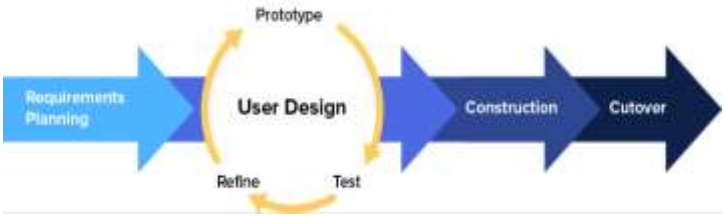
The enrollment process has always been difficult for students. It is challenging for the office staff and class counselors to acquire data from enrollment forms. To have a method for gathering and organizing student registration forms, the researchers developed an online enrollment system. Thanks to the online enrollment method, students may enroll and fill out paperwork while lounging in their homes. The admin and the class advisers may obtain, assemble, and sort the information provided by the students online. The administrator and adviser's administrative chores were made easy by this instrument. (Carlo E. Habahab, Gilbert Y. Bernas ((2019)).

3. METHODOLOGY

Figure 1. Agile



3.1 Rapid Application Development Model

Prototyping and iterative models with no (or less) detailed preparation are the foundation of the Rapid Application Development (or RAD) methodology. In general, the RAD method to software development places more focus on prototyping and development jobs and places less emphasis on planning duties.

3.2 Define the Requirements

Rapid application development immediately distinguishes itself from conventional software development techniques. It only asks for a general demand; it does not require you to sit down with end users and obtain a comprehensive set of specifications. You can segment particular requirements at various stages of the development cycle because the criteria are broad.

3.4 Prototype

The actual construction takes place here. Developers work quickly to produce prototypes with a variety of features and functions rather than adhering to a strict

set of specifications. The clients are then given these prototypes, and they determine what they like and don't. These prototypes are frequently quickly created to function in order to highlight only the most important characteristics. This is typical, and the final result is only developed when the client and the developer are on the same page regarding the final product.

3.5 Construction

A vital stage of growth is the construction phase. Engineers and developers put in endless effort to construct a functioning system from a functioning model. The majority of problems, issues, and changes are fixed at this stage, which also emphasizes the importance of feedback and reviews. This step can be very drawn out, especially when clients alter their minds or the feedback is extensive.

3.6 Deployment

Deploying the constructed system into a real-time production environment is the last stage of RAD. In-depth scale testing, technical documentation, issue tracking, last-minute modification, and system simulation are all part of the deployment phase. Before the program goes live, teams also spend time troubleshooting it and performing final upgrades and maintenance

3.7 Review

The researchers are responsible for monitoring the program in this stage, which includes system repairs and software updates

3.8 Development Specifications

Refers to the detailed description of the software product or solution that the team developed. It typically includes information on technical requirements of the software and hardware product.
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Table 1. Software Specification

Software	Specification
Operating System	Windows 7 32-64 bit, Minimum of Windows 10 64-bit,
Browser	Chrome, Edge, Safari, Opera, Firefox, Internet Explorer, Microsoft Edge, Etc.
Database	MySQL

Table 2. Hardware Specification

Hardware	Specification
Processor	Intel Core i3 & i7, Athlon, Xeon, Pentinum II, Sempron, Opteron, Amd Ex, Pentium M, Celeron, Penium D, Intel Atom, Pentium III, Pentium D, Athlon 64
Memory	Minimum Of 4GB Ram
Storage	Minimum Of 120 SSD

3.9 Test/Evaluation Plan

When the researchers met the respondents, they were unable to utilize the application, so the researchers first demonstrated it to them. After the procedure, the evaluation tool was provided, and the outcomes were computed. For evaluation, the researchers consulted IT experts in order to assess how the overall system performs in relation to its requirements and identify areas for growth and improvement. How well it operated and whether it could be implemented so that users could use it frequently.

3.10 Test and Evaluation Instruments

This section shows what instruments the researchers used to test and evaluate the system that is given to the users.

3.11 User Acceptance Testing

The user will test the system whether it is passed of failed to evaluate changes. It also allows users to participate with software to ensure that it is working effectively.

3.12 Evaluation Questionnaires

The researchers constructed an evaluation questionnaire to evaluate the quality of the system based on ISO/IEC 25010.

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3.8 ISO/IEC 25010

Is a standard that outlines a framework for assessing the qualities of software products. The specification is a component of the ISO/IEC 25000 family of standards, which offers recommendations for software engineering and software quality control. Eight quality criteria for software products are outlined in ISO/IEC 25010: functionality, reliability, usability, efficiency, maintenance, portability, compatibility, and security.

3.9 Sampling Technique

4. RESULT AND DISCUSSION

This chapter includes the forms for evaluation that will be given to participants by the researchers so they can gather information and have conversations.

4.1 Evaluation Results

The researchers organized an testing in Angeles City, Pampanga. Right after the testing, the researchers distributed their questionnaire. A total of fourteen (14) respondents – ten (12) students, and two (2) IT experts.

4.2 Presentation, Analysis and Interpretation of Data

Results of the IT Experts' evaluation form are shown in this section. The system's front-end and back-end modules were both included in the test. The result was based on two (2) IT experts

Table 7: Questionnaire Results

Questions	No. of Respondents					Average Mean	Interpretation
	5	4	3	2	1		
1. The Online Enrollment System of CBRC saves time effectively.	3	7	0	0	0	4.3	Strongly Agree
2. The Online Enrollment System of CBRC is considered as an effective tool in enrollment.	2	7	0	0	1	3.9	Agree
3. The Online Enrollment System of CBRC should always be implemented.	3	7	0	0	0	4.3	Strongly Agree
4. The Online Enrollment System of CBRC is easy to comprehend and can be understood without difficulty.	1	9	0	0	0	4.1	Strongly Agree
5. The Online Enrollment System of CBRC is important to the reviewers, parents, and guardians.	4	6	0	0	0	4.4	Strongly Agree
6. The Online Enrollment System of CBRC serves as an advantage for manual/walk in enrollment.	3	7	0	0	0	4.6	Strongly Agree
7. The Online Enrollment System of CBRC offers solution to the problem regarding manual enrollment.	2	7	1	0	0	3.8	Agree
8. The Online Enrollment System of CBRC plays an impotant role in storing, and retrieving user's account.	3	7	0	0	0	4.6	Strongly Agree
9. The Online Enrollment System of CBRC makes the review center unique from other review centers.	2	7	1	0	0	3.8	Agree
10. The Online Enrollment System of CBRC is easy to use and understand.	3	7	0	0	0	4.2	Strongly Agree
11. The Online Enrollment System of CBRC is outstanding.	3	7	0	0	0	4.3	Strongly Agree
						4.21	**Strongly Agree**

The performance of the CBRC Online Enrollment System was evaluated through questionnaire whether this has significance to the respondents or beneficial to the respondents or not. The survey was given to (11) respondents through distribution of questionnaire through google forms. Each respondent according to the details above was given one questionnaire to fill up. The result of the survey is summarized in the table.

5. SUMMARY, CONCLUSIONS, AND RECOMMENDATION

5.1 Conclusion

The enrolment system was developed to organize all enrollment-related tasks into a cloud-based platform. Additionally, since the system eliminates the need for paperwork, workload, and crowded locations, it can help employees complete their tasks more quickly and easily. The main objective of the enrollment system is to streamline the registration process for staff members and record-keeping for students.

5.2 Reccomendation

The researches would consider the upgrading and updating more of the functions of the enrollment system so it will not be hard to navigate and friendly user. Also, the they would be considered of the security of the system so it can protect from the hackers, and the protecting of the data and information of each user. It's also recommended that students or reviewers fill out the form, the age or birth date is auto generated so that people are trying to fill out the form cannot complete the registration form.

- Location is auto generated for admin branch
- Update is valid for walk-in only
- Reviewer should see what program they enrolled to
- Change delete button to archive
- Lecturer should not have rank in board exam
- Receipt picture must be clickable
- Redundant print button
- Total salary of lecturer
- Codes (Autogenerated or Dropdown)
- Down Payment change Payment
- Auto generated date for every season
- Change Welcome Screen
- Reference number GCash Payment
- Improve total salary per lecturer
- Terms and Condition

These conclusions and recommendations serve as a roadmap for effective action and strategic decision-making in addressing the identified challenges and maximizing opportunities for success, it is imperative to implement these recommendations to achieve the desired outcomes and foster positive progress in the given context.

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