LEARNING MANAGEMENT SYSTEM IN SCIENCE OF GRADE 8 FOR JIANE THERESE INTERNATIONAL SCHOOL

A

Capstone Project
Presented to the

Faculty of College of Computer Studies

University of Rizal System

Binangonan, Rizal

In Partial Fulfillment

of the Requirements of the Degree

Bachelor of Science in Information Technology

NATASHA JANA SJ. CASERES

ERIKA NIÑA A. ARAGONES

JOMARI V. FLORES

JOEMARI GETIZO

JHERWIN A. JALINA

JORGE STANLEY B. TALOSIG

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APPROVAL SHEET

This Capstone Project entitled LEARNING MANAGEMENT SYSTEM IN SCIENCE OF GRADE 8 FOR JIANE THERESE INTERNATIONAL SCHOOL has been prepared and submitted in partial fulfillment of the requirements for the degree Bachelor of Science in Information Technology by NATASHA JANA SJ. CASERES, ERIKA NIÑA A. ARAGONES, JOMARI V. FLORES, JOEMARI GETIZO, JHERWIN A. JALINA, and JORGE STANLEY B. TALOSIG who are hereby recommended for the corresponding oral examination.

_____ **YVES XAVIER S. CANDELARIA, MSIT**

Date Adviser

Approved in partial fulfillment of the requirements for the degree Bachelor of Science in Information Technology by the Oral Examination Committee with a rating of ___.

MARK ANTHONY M. ZAMORA, MSIT **ROWENA F. TANJUAKIO, MSIT**

Member Member

ARISTOTLE C. MAYORCA, MSIT

Chairman

Accepted in partial fulfillment of the requirements for the degree Bachelor of Science in Information Technology.

_____ **JOY SG. CRUZ, Ph.D. (Cand.)**

Date Dean, CCS

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-The Project Team

DEDICATION

The project is sincerely dedicated to each of our parents, friends, professor, and adviser who have always served as an inspiration and source of motivation for us. gives us the willpower to persevere and inspires us to work with passion and a strong sense of determination.

We are grateful to the Lord GOD who provided us with the ability to work with wisdom and determination and who sees the good in all that we do.

To the instructors who support us, show us the way, and provide us guidance.

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Natasha

Erika

Jomari

Joemari

Jherwin

Jorge

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THE BACKGROUND OF THE PROJECT

Introduction

Education is one of the most important elements in each one's life. Education is a procedure of learning where knowledge, skills, and habits are passed from one generation to another. It helps a person to analyze while making important decisions in life. Moreover, education is essential for the overall development of a human being.

In addition, education plays important role in the development of a country. The topic of the importance of education in daily life has to admit that it improves personal lives and helps in running societies smoothly by using what it gives to people and most people say that education is the key to a better life because it is a powerful weapon to change society.

Education starts at home where parents encourage and support children to learn new things like writing, reading, drawing, and even identifying colors, alphabets, and numbers. And there's a time when children have to go to school and socialize turned into a student. That's how education evolves widely from a child to a student and will defend how the school teaches, either in a traditional way like face-to-face discussion, or the modern way like blended learning where the student will use technology and the internet. Presently, education evolves together with other industries with high technology like using computers because it is useful due to the advanced method of learning.

The computer is one of the most impressive inventions for the present and future generations. Computers are now widely used and are considered one of the most brilliant creations of technology as they took a big role in our society majorly in the aspect of manipulation of data and converting it into detailed information. One of the functions of a computer is to manage files and record data, and many computer application systems enable users to do such things including management information systems and a web-based system like Learning Management System (LMS).

A Learning Management System (LMS) is a piece of online software that is used to create, deliver, track, and report on educational courses and outcomes. It can be used to support both traditional face-to-face instruction and blended/hybrid/distance learning environments.

With the rapid progress in technology and the advancement in learning systems, it is now embraced by the masses. The introduction of computers was the basis of this passage of time, as we get hooked on smartphones, tablets, etc., these devices now have an important place in the classrooms for learning. Books are gradually getting replaced by electronic educational materials and knowledge can also be shared via the internet, which is accessible anywhere anytime that is an advantage to a student going to school, and many schools need to have an educational system that is easier to access and saved time and resources for efficiency, and one of these is Jiane Therese International School.

Jiane Therese International School was established twenty-two years ago exactly in the year 2000. It was managed and highly maintain by the married couple, Dr. Belina C. De Vega and Mr. Enrico Z. De Vega. It has approximately 408 student population. The school provides preschool to high school education. As the school operates, it faced some difficulties in getting the attention of the students to focus on their studies and one of the subjects is science. The project team focuses on that subject at the 8th-grade level.

With the occurrence of the problem encountered by Jiane Therese International School, the project team was encouraged to propose an E-Learning system that will assist the instructor or teachers in their teaching methods and will get the attention of the students to learn more about Science, especially in Grade 8.

Objectives of the Project

The general objective of the project is to develop a Learning Management System in Science for Grade 8 of Jiane Therese International School located at Jala-Jala, Rizal, for the school year 2022-2023.

Specifically, the project aimed to:

Determine

the propose system with the quality assurance test plan by at least a 95% rate of success.

Determine

the user acceptance level of the propose system

in the matter of

Function

al

Suitability, Performance

Efficiency

, Usability, Reliability, Security,

and

Maintainability.

Scope and Limitation of the Project

The project immerses in the development of Learning Management System in Science of Grade 8 for Jiane Therese International School located at Jala-Jala, Rizal, during the academic year 2022-2023.

The system will develop using Visual Studio Code and MySQL Workbench. The LMS will be having two user types which provide varying levels of restriction for admin and users. Admin can access viewing and maintain the list of lessons, activities, and tasks, review and manage results, maintain the system's settings, and view and print reports. The users or the students can access the list of lessons, take activities and tasks, review the results, and return to the past lesson and take another activities and tasks.

The project team makes use of the software development life cycle waterfall model as the project development framework. The respondent to the project has a sample of eighteen (18) which includes seventeen (17) grade 8 students from the total population of 400 students and one (1) teacher who is teaching Science subjects from Jiane Therese International School. Since students will be the project's end users, Purposive Sampling is used to properly select a respondent for the project.

Significance of the Project

The following will benefit from this project and the science-focused online course created for the Jiane Therese International School:

The Grade 8 students. The system will give the students an additional tool to aid in their understanding of the science courses and exercises.

Jiane Therese International School (JTIS). The project team came to the conclusion that using LMS to teach science to grade 8 students at JTIS improves their academic performance and learning capacity, which may be advantageous for the institution.

Teachers. This project can help school instructors or teachers. The teachers can recommend E-Learning in science for the students to take a lesson ahead of time or self-study.

Project Team. The team will gain experience in the procedures of creating an E-Learning for a specific institution through this project. In relation to this, it showcases the importance of information technologies to human life specifically in the educational institution.

Future Project Team. The project is used as a model or starting point for creating a related or comparable capstone project.

Definition of Terms

To provide a clear medium of communication between the proponents and the readers, the following terms, are defined conceptually and operationally:

Administrator or Admin. A person whose job is to manage a company, school, or other organization.

LMS. Learning Management System is an online system that used to support both traditional face-to-face instruction and blended/hybrid/distance learning environments.

JTIS. Jiane Therese International School is located at Jala-Jala, Rizal.

MySQL Workbench. A visual tool for databases that manipulate data tables or information about a certain subject.

Online Learning. A type of distance learning that refers to the use of electronic media and information and communication technologies and education.

QA Test Plan. Quality Assurance Test Plan is a type of testing process that was used by the project team to ensure that all the features are met and all the needed information is present in the system.

Visual Studio Code. A source-code editor made by Microsoft with Electronic Framework, for Windows, Linux, and macOS. It redefined and optimized for building and debugging modern web developers.

Functional Suitability. The system meets the needs and requirements of the user.

Performance Efficiency. Determine and evaluate the system.

Usability. The usefulness of the system.

Reliability. Concern with the consistency of the system.

Security. Deal with the security or privacy of the user.

Maintainability. Keeping and managing the system.

Chapter 2

REVIEW OF RELATED LITERATURE

Education is both the act of teaching knowledge to others and the act of receiving knowledge from someone else. Education is also a powerful tool that teaches people their rights and responsibilities to their families, society, and nation. You can broaden your vision and outlook to see the world

around us. It alters our outlook on life and powerful motivator of development and is one of the strongest instruments for reducing poverty and improving health, gender equality, peace, and stability. Through generations, education is improving in a way that is convenient and easy for everyone and one of that is Learning Management System.

Learning Management System

According to Oliveira (2012), the potential that IT offers may make e-learning closer to the classroom mode in relation to personal interaction and preserve the distance between teachers and students, in order to improve the process of mediated communication, systematic guidance, and constant monitoring focused on the formation of skills and attitudes that allow the student to have learning process autonomy in a continuous self-education.

In this context, IT provides progressively greater flexibility and accessibility to education, culture, and professional and personal development, contributing to the creation of educational systems.

The first LMS appeared in the nineties, along with the first web browsers. According to Silva (2013), Learning Management Systems are often criticized, due to the belief that these technologies simply virtualize non-virtual classrooms. However, according to the author, they are not the main problem, but the way they are designed, structured, and crafted.

Furthermore, the use of an LMS requires careful studies, particularly in relation to educational and financial aspects.

Bach et. al., (2013), in turn, performed a systematic review of the Brazilian scientific production on the use of IT in education between 1997 and 2011 and verified that there are large concentrations of studies on the implementation and management of distance learning courses, use of IT in education, quality evaluation and satisfaction in using an LMS, pedagogy and didactics in the distance learning content, evaluation of professional skills and competencies related to distance education and contributions of IT to teaching and learning. For them, it reflects the transition of many universities to distance education as well as the existing arguments over their advantages and limitations.

Van de Vord and Pogue’s (2012) research suggests that while face to face

instruction requires more time per student, and certain aspects of online teaching take considerably more time per student than in a face-to-face classroom. Instructors do value tools within the learning management system and overall feel value from its interaction. They especially value the ability to transmit documents and efficient communication enabled through the system.

In the final analysis, online learning is beneficial to the students, tutors, and the institution offering these courses and teaches students how to manage their time better since the student bears the responsibility of engaging with the course instead of simply showing up to class on an assigned day and time.

As a result, students not only gain knowledge from the coursework but also sharpen their time management skills. The project team would therefore recommend that online learning be implemented in all learning institutions and research on how to improve this learning process should be carried out.

Computer Technology

Computer technology varies on how each individual use and manages it. It can be in education, discovering factors and accomplishments in science, or out-of-this-world breakthroughs.

According to Paje et. Al. (2021), computer-based technology (CBT) in science instruction is a trend in the 21st -century learning. Teachers utilized CBT in instruction to improve their teaching which significantly uplifts students' learning interests and concept understanding. However, teachers encounter difficulties due to low ICT literacy, unstable internet connection, and power interruption, and sometimes they find it too expensive to use the CBT.

The study recommends an ICT training workshop and encourages teachers to utilize appropriate CBT instruction based on the context of the students. The findings have important implications for policy development and curriculum enhancement.

Gilakjani (2013) identified some of the key factors contributing to the use of computer-based technology by teachers. The study discussed computer self-efficacy, explain the teaching experiences and develop insufficient computer technology support. The ultimate goal is to investigate professional development in computer technology integration.

Computer-based technology has infiltrated many aspects of life and industry, yet there is little understanding of how it can be used to promote student engagement, a concept receiving strong attention in higher education due to its association with a number of positive academic outcomes. With the intent of increasing understanding of how computer-based technology may be purposefully implemented to achieve the greatest gains in student engagement (Schindler et. Al. 2017).

As also claimed by Hbaci et. Al. (2020) computer technology showed levels of perceived competency in each skill area differed significantly from perceived competence in each of the other areas and statistically significant difference between educators who are from technical disciplines and non-technical disciplines in overall competence in using computer technologies. Furthermore, it showed that educators in technical disciplines expressed more competence in basic and advanced computer operations.

This comparison indicated a need to tailor training and implementation efforts to the needs of educators in various disciplines rather than using a standardized approach. The supplemental data using an open-ended question presented the type of support Libyan educators need to improve their teaching using computer technology.

Rakhimova et. Al. (2016) also stated that the cognitive activity of students under which the authors understand the process of creative knowledge of foreign culture is increasing with the use of computer technologies. Thus, this process changes the general educational purposes of humanities. In accordance with the study that the authors enumerate the main skills and abilities required from the teacher who uses computer technology in a sociocultural environment.

On the whole, the level of sociocultural competence can be advanced with the help of computer technologies as it provides wide opportunities for students to take part in joint-work international projects.

As stated in Section 10. Article XIV of the Constitution of the Republic of the Philippines:

“Science and technology are essential for national development and progress. The State shall give priority to research and development, invention, innovation, and their utilization; and science and technology education, training, and services. It shall support indigenous, appropriate, and self-reliant scientific and technological capabilities and their application to the country's productive systems and national life.”

The preceding article discusses the application of technology in various aspects that contribute to the country's continuous progress. When it comes to science and technology, organizations must innovate for the betterment of the institution. The development of an information system for an educational institution can provide progress and innovation with the mentioned legal basis.

The project team was brought to the conclusion that computer technology varies in aspects in every little thing in modernization about technology in this generation. Computer technology is also one of the biggest strengths of today’s society and nation’s progress.

It is either education that helps learners and educators to improve the way they received and provide knowledge and wisdom or another profession that benefits in every aspect that could help each person to contribute to the world using computer technology.

Software Quality and Testing

Software quality is the degree to which a product incorporates a set of desirable qualities that have been established by the industry to improve performance over time. In this definition, it is emphasized that a product has an initial existence and that its quality has a temporal component. Aspects that will enhance the product are also highlighted. Last but not least, the functionalities must be integrated from the beginning rather than added after the fact using customer demands or other comparable criteria.

According to Roshan et al. (2012), in the context of the success of testing pursuit highly depends on the effectiveness of the test cases. Various approaches have been proposed to ease the task of test case generation and to perform software testing. It has witnessed a paradigm shift from manual test case generation to automated test case generation in recent times. Search Based Software Testing (SBST) has evolved as a new domain in software testing. This paper reviews the various Search-Based Software Testing approaches, foresees trends in the research being conducted in this area, and explores the new possibilities that future of the software testing envisages. This paper presents an exhaustive survey on Search-Based Software Testing and also touches upon the other disciplines of modern-day computing which seamlessly overlap with SBST.

As stated by Gautam et al. (2022), software testing automation is an approach that can be successfully used in software engineering. On the other hand, they discovered 48 main research papers for each different machine learning-based software testing approach. This demonstrates how the model uses the data to inform its learning and prediction processes. They discovered that the most common use of machine learning was for the purpose of developing, improving, and evaluating test cases.

Software testing is focused on meeting user expectations and delivering high-quality products. In particular, because software testing has been shown to be a crucial activity in the software

development life cycle, practitioners have found that they need to define and use various testing methodologies and procedures in order to guarantee the quality of their software. In other words, this means that in order to facilitate the creation of systems to be utilized in a range of various situations, the evolution of software products presented new obstacles for people involved in software testing.

As also mentioned by Foidl and Felderer (2016) that software quality assessments, based on quality models, already describe the product-related risks of a whole software product and provide objective and automation-supported assessments. But so far, quality models have not been applied for risk assessment and risk-based testing in a systematic way. The case study shows that a risk-based testing strategy outperforms lines of code-based testing strategies with regard to the number of defects detected. Moreover, a significant positive relationship between the risk coefficient and the associated number of defects was found.

As also mentioned by Murugan et. Al. (2013), software development and maintenance are used to make error-free Software and also concentrate on time-consuming and complex activities. Evaluating the quality of a software product and keeping its level high is much more difficult than doing them for other industrial products. For maintaining the quality, performance, speed, efficiency, and cost of the software. The Software Quality Assurance activities, principles, and methods are implemented in the early stages of software engineering development phases.

In further understanding, Software Testing is the process of evaluating a software program to ensure that it performs its intended purpose. Software testing verifies the safety, reliability, and correct working of the software. The growing need for quality software makes software testing a crucial stage in Software Development Lifecycle. There are many methods of testing software, however, the choice of method to test a given software remains a major problem in software testing. Although, it is often impossible to find all errors in software, employing the right combination of methods will make software testing efficient and successful. Knowing these software testing methods is the key to making the right selection. This paper presents a comprehensive study of software testing methods.

An explanation of Testing Categories was presented first, followed by Testing Levels (and their comparison), then Testing Techniques (and their comparison). For each Testing Level and Testing Technique, examples of some testing types and their pros and cons were given with a brief explanation of some of the important testing types. Furthermore, a clear and distinguishable explanation of two confused and contradictory terms (Verification and Validation) and how they relate to Software Quality was provided (Mubarak Umar 2020).

The project team came to an end with that it has been shown that software testing is a crucial step in the process of developing software. From the project team's perspective, the software testing process streamlines the entire process and guarantees the high quality of the final output. Additionally, the application's usability and functionality are enhanced, and maintenance expenses are reduced.

CHAPTER 3

METHODOLOGY

Research Development Framework

In order to carry out this project, the project team uses a system development life cycle sashimi waterfall model.

The sashimi waterfall model will decide whether the web-based system is successfully implemented. In any situation, the developer must follow a comprehensive development plan to ensure the least amount of time and finance is spent when creating the web-based system.

The system development life cycle sashimi waterfall model by Jim Rising (2009) consists of six (6) stages including Requirements, Design and Architecture, Development and Coding, Quality Assurance & Software Testing, Implementation, and Maintenance & Support.

The first stage is the Requirements, which consist of gathering information about the project required to start the basic information about the development of the project.

Second is the design and architecture, during the design and architecture phase of the project, sponsor the functional and/or technical definition of the project. At times tools such as wireframes and/or storyboards are used in order to help the architect to communicate with the developers and the project sponsor.

The third is the development and coding, the phase is the most time-consuming and most expensive. The ‘development and coding’ phase overlaps

Figure 1

Project Framework of the Development of Learning Management System in Science for Grade 8 for Jiane Therese International School

with the ‘design and architecture’ phase until this phase fulfills the requirements of the one prior to it.

The fourth is quality assurance and software testing which is the most obvious improvements to the waterfall model when using Sashimi during the testing phase. Because of the iterative approach of Sashimi, testing occurs as part of the development process, and then again as part of the deployment process.

The fifth stage is implementation; this is the phase of the project where the developed software is installed (or deployment scripts are delivered), documentation is written or cleaned up (as documentation should be written as an ongoing part of the development process), and sometimes client training will occur.

Lastly, the sixth stage is maintenance and support, After the project is released into the wild, bad things can happen. This is why it is important that continued maintenance and support are addressed within any software development process.

The sashimi model of the system development life cycle is a suitable project development framework for the project since it helps shorten the development time. People with different skills can start working without waiting.

Locale of the Project

The lack of private schools in Jala-Jala and its neighboring towns and barrios became a big concern for Dr. Belina C. De Vega, a dentist by profession, and thus moved her to conceive the idea of building a school in Jala-Jala, Rizal. Along with her supportive lifetime partner, Enrico De Vega, the founder took the courage and the challenge to open a school at Linis, Sipsipin, Jala-Jala, Rizal.

The school was established and was operational in June 2000 with 35 pupils in its first year, it grew to 81 in its second year, 150 in its third year, 180 in the fourth year, and 244 in its fifth year. The enrollment profile was encouraging enough, for growth and expansion. Parents, who were satisfied with the academic achievement and the Christian values formation received by their children, paved the way to open complete elementary and high school.

Together with their supportive relatives, co-administrators, faculty, and parents. Dr. Belina C. De Vega acknowledges the untiring and benevolent support of her father, Jesus Cubilla, for her school, and has appointed him the school President. Jiane Therese International School continues to soar high and provide quality education for students that persist to reach their dream and goal in life.

Subject of the Project

The respondent to the project has a sample of eighteen (18) which includes seventeen (17) grade 8 students from the total population of 400 students and one (1) teacher who is teaching Science subjects from Jiane Therese International School. Since students will be the project's end users, Purposive Sampling is used to properly select a respondent for the project.

The project's proponents concluded that the teachers, who handled and taught science to students in Grade 8 at the school, would be able to assess the project's acceptance.

Procedures of the Project

A good capstone project is one that is scientific and systematic: with this, the project team has followed the step-by-step procedure for conducting this study.

The project team began by consulting their capstone project instructor and afterward, they conducted brainstorming ideas on possible system titles.

Subsequently, they conducted a series of interviews which helped them identify the problems of different businesses and organizations. Based on these interviews, the proponent came up with proposed system titles.

These system proposals were considered by the panel during its title defense. The panel then picked the best title among those presented by the researchers which is the E-learning in Science of Grade 8 for Jiane Therese International School in Jala-Jala, Rizal.

The project team then proceeded to the gathering of data and system requirements then they started working with Chapters 1 and 2. After that, the researchers consulted with their thesis adviser to check for errors in the manuscript.

Then, the project team started the development of Chapter 3, then several revisions of the manuscript were done. It was then checked and finalized in preparation for the colloquium or pre-oral defense.

During the colloquium, the project team presented their proposal to the panel which provided them with valuable feedback and criticism. Based on other various recommendations of the panel, the researchers revised the manuscript and finalized it and then submitted the soft bind copy of the manuscript to their capstone project instructors.

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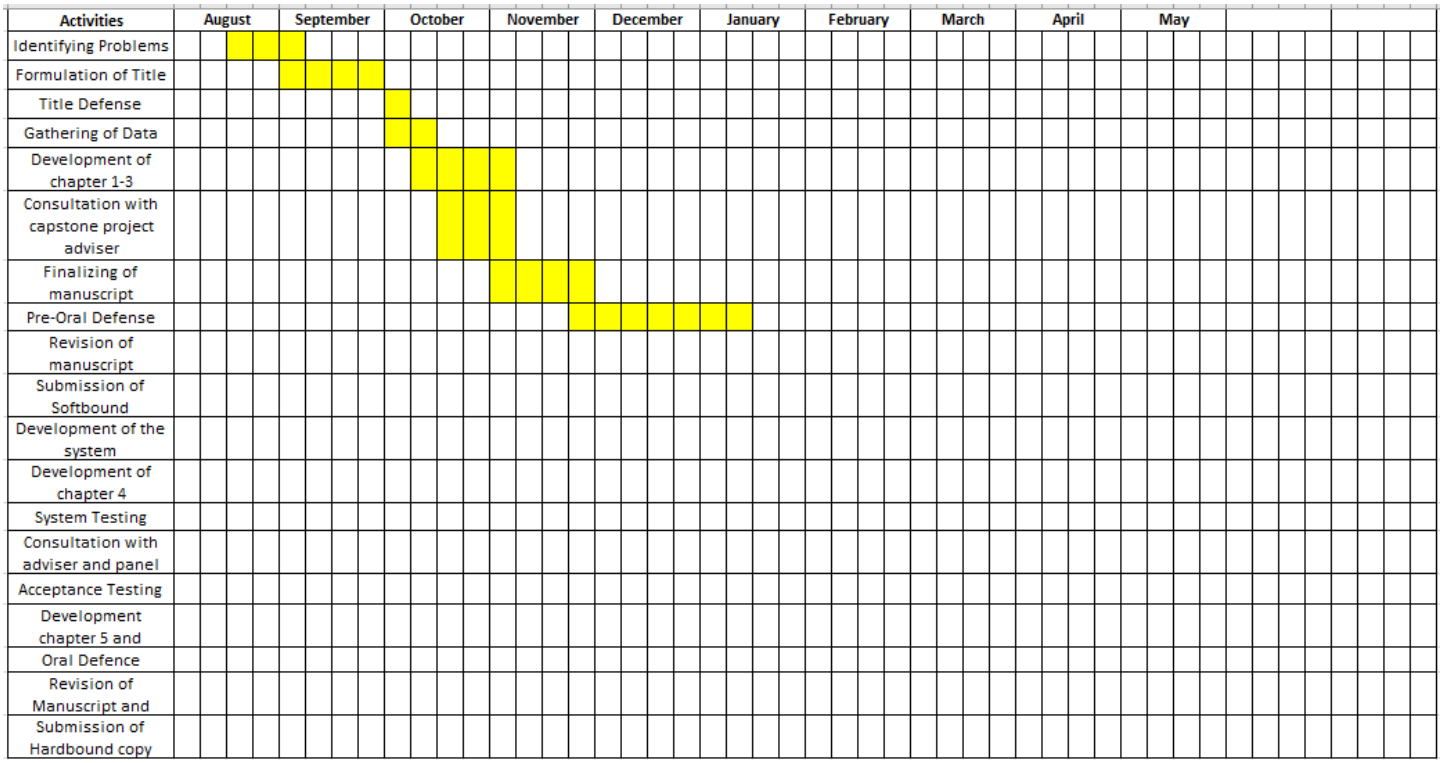
APPENDICES

APPENDIX A



Gantt Chart of the Activities

APPENDIX B

Republic of the Philippines
UNIVERSITY OF RIZAL SYSTEM
Province of Rizal
www.urs.edu.ph

Email Address: ursmain@urs.edu.ph /urs.opmorong@gmail.com
Main Campus: URS Tanay Tel. (02) 8401-4900; 8401-4910; 8401-4911; 8539-9957 to 58

College of Computer Studies - URS Binangonan

PROJECT TEAM ASSIGNMENT FORM

Team Alias	Skylink Tech
Subject Teacher	Alking P. Sunga

Name and Signature	Role	Email address	Mobile Number
Natasha Jana SJ. Caseres	Project Manager	natashacaseres777@gmail.com	09083187445
Jherwin A. Jalina Jorge Stanley B. Talosig	Documentary/ Technical Writer	jalinajherwin@gmail.com georgetalosig203@gmail.com	09100335517 09953097583
Joemari Getizo	Programmer	getizojoemari@gmail.com	09475057293
Jomari V. Flores	Quality Assurance/Tester	jomariflores2000@gmail.com	09066709387
Erika Niña A. Aragones	System Analyst	jaeketyronecraige@gmail.com	09168880571

Approved by:

ALKING P. SUNGA, MSIT
Subject Instructor

Project

Team Assignment Form

APPENDIX C

Letter of Permission to Conduct the Project

Republic of the Philippines
UNIVERSITY OF RIZAL SYSTEM
Province of Rizal
www.urs.edu.ph

Email Address: ursmain@urs.edu.ph /urs.opmorong@gmail.com
Main Campus: URS Tanay Tel. (02) 8401-4900; 8401-4910; 8401-4911; 8539-9957 to 58

College of Computer Studies - URS Binangonan

October 4, 2022

MRS. JENCEL CRUZ REYTA
Assistant Principal
Jiane Therese International School
National Road, Linis, Jala-Jala, Rizal

Dear Mrs. Reyta;

Greetings of Peace!

The undersigned are currently enrolled in Capstone Project 1.

In this regard, it is requested that they will be allowed to conduct an interview to gather necessary data regarding the transactions of your office which might be useful in formulating their system proposal title. This is in connection with their desire to pursue the degree of Bachelor of Science in Information Technology at the University of Rizal System Binangonan. The interview may be conducted at your most convenient time.

Your consideration and favorable action on the matter will be highly appreciated.

Thank you and more power to your institution.

Very truly yours,

NATASHA JANA SJ. CASERES

JHERWIN A. JALINA

JOEMARI GETIZO

JORGE STANLEY B. TALOSIG

JOMARI V. FLORES

ERIKA NIÑA A. ARAGONES
Project Team

Noted:

ALKING P. SUNGA, MSIT
Subject Professor

JOY SG. CRUZ, PhD. (Cand)
College Dean

APPENDIX D

Republic of the Philippines
UNIVERSITY OF RIZAL SYSTEM
Province of Rizal
www.urs.edu.ph

Email Address: ursmain@urs.edu.ph /urs.opmorong@gmail.com
Main Campus: URS Tanay Tel. (02) 8401-4900; 8401-4910; 8401-4911; 8539-9957 to 58

College of Computer Studies - URS Binangonan

APPROVED PROJECT TITLE FORM

Project Proponents:

1. CASERES, NATASHA JANA S
2. ARAGONES, ERIKA NINA A
3. FLORES, JOMARI V
4. GETIZO, JOEMARI
5. JALINA, JHERWIN
6. TALOSIG, GEORGE STANLEY

Approved Project Title:

e-Learning in Science of grade 8 for Jiane Therese International School

Recommending Approval:

ALKING P. SUNGA, MSIT
Capstone Project Instructor

Date:

Approved:

JOY SG CRUZ, PhD. (Cand)
Dean, CCS

Date:

APPENDIX E

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College of Computer Studies - URS Binangonan

November 2, 2022

PROF. YVES XAVIER CANDELARIA
Faculty, CCS
This University

Dear Sir:

In consideration of your qualifications in the field of research, the College Research Council represented by the undersigned, upon recommendations of Research Professor has approved your appointment as *Project Adviser*.

The following are the responsibilities of the project adviser:

- Meets the team regularly (as per scheduled, NOTE: the team must seek proper appointment) to answer questions and help resolve issues and conflicts.
- Points out errors in the development work, in the analysis, or in the documentation. The adviser must remind the Proponents to do their work properly.
- Reviews thoroughly all deliverables at every stage of the Capstone Project, to ensure that they meet the college standards.

The students who shall be under your scrutiny include:

Names	*Course*
NATASHA JANA SJ. CASERES	BSIT
ERIKA NINA A. ARAGONES	BSIT
JOMARI V. FLORES	BSIT
JOEMARI GETIZO	BSIT
JHERWIN A. JALINA	BSIT
JORGE STANLEY B. TALOSIG	BSIT

This project proposal is entitled E-LEARNING IN SCIENCE OF GRADE 8 FOR JIANE THERESE INTERNATIONAL SCHOOL.

Thank you for your usual support to the research program/s of the College.

Very truly yours,

ALKING P. SUNGA, MSIT
Research Instructor

Conformed:
(sgd)
YVES XAVIER CANDELARIA, MSIT
Project Adviser

Letter of Acceptance of the Adviser and Panel

APPENDIX F

User Acceptance Evaluation Questionnaire

Republic of the Philippines

UNIVERSITY OF RIZAL SYSTEM

Binangonan Campus

Questionnaire-Checklist

DEVELOPMENT AND EVALUATION OF E-LEARNING IN SCIENCE OF GRADE 8 FOR JIANE THERESE INTERNATIONAL SCHOOL

Part I. PERSONAL DATA

Name(optional): _____

Part II. EVALUATION OF THE LEVEL OF ACCEPTABILITY

***Directions*:** Rate the presentation of each of the criteria by checking the appropriate box to determine the level of acceptability of the developed website.

The scales are as follows:

5 - Highly Acceptable

4 - Acceptable

3 - Moderately Acceptable

2 - Slightly Acceptable

1 - Not Acceptable

		5	4	3	2	1
1. Functional Suitability						
1.1	The developed system					

	covers all the specified tasks and objectives of the end-users					
1.2	The developed system provides the correct results with the needed degree of precision.					
1.3	The developed system facilitate the accomplishment of specified tasks and objectives of the end-users					
2. Performance Efficiency						
2.1	The develop system meets the requirements on its response and processing times and throughput rates when performing its functions					
2.2	The developed system efficiently used the required amounts and types of					

	resources when performing its functions.					
2.3	The develop system maximum limits meet requirements of the end user					
3. Usability						
3.1	The developed system is appropriate for the needs of the end user.					
3.2	The developed system enables the user to learn how to use it with efficiency.					
3.3	The developed system is easy to operate, control, and appropriate to use.					
3.4	The developed system protects users against making errors.					
3.5	The developed system user interface enables					

	pleasing and satisfying interaction for the user.					
3.6	The developed system can be used by people with the widest range of characteristics and capabilities to achieve a specified goal in a specified context of use.					
4. Reliability						
4.1	The developed system meets the needs for reliability under normal operation.					
4.2	The developed system is operational and accessible when required for use.					
4.3	The developed system operates as intended despite the presence of hardware or software faults.					

4.4	The developed system can recover the data in the event of an interruption or a failure					
5. Security						
5.1	The developed system ensures that data are accessible only to those authorized to have access.					
5.2	The developed system prevents unauthorized access or modification.					
5.3	The developed Syste m actions or events can be proven to have taken place, so that the events or actions cannot be repudiated later.					
5.4	The developed syste m allows to traced the actions of an entity uniquely.					
5.5	The developed					

	system allows the identity of a subject or resource can be proved to be the one claimed.					
6. Maintainability						
6.1	The developed system composed of discrete components such that a change to one component has minimal impact on other components.					
6.2	The developed system asset can be used in more than one form.					
6.3	The developed system can efficiency change one or more of its parts in which it is possible to assess its impact on the system to diagnose the deficiencies of the parts to be modified.					
6.4	The developed					

	system can be effectively and efficiently modified without introducing defects or degrading existing system quality.					
6.5	The developed system can establish criteria for the system to perform tests to determine whether those criteria have been met.					

CURRICULUM VITAE

NATASHA JANA SJ. CASERES

Lot 23 Blk.6, Sunstrip Green Vil., Brgy. San Isidro, Angono, Rizal

natashacaseres777@gmail.com

Educational Background

	Name of School	Year Attended
College:	University of Rizal System - Binangonan **Course:** BS Information Technology	2020 - present
Senior High School:	ACLC College of Taytay	2018-2020
High School:	Tuna-Balibago National High School	2014-2018
Elementary:	Tuna-Balibago Elementary School	2007-2014

Seminar and Training Attended

Introduction to UI/UX Designing Using Figma
Webinar via Zoom
October 14, 2022

Organization/s Affiliation

Organization Name: College of Computer Studies -Student Body
Position: Inclusive date of Membership: 2020-Present

Organization Name: j-Connect Student Society
Position: Inclusive date of Membership: 2020-Present

Organization Name: IT Students' League
Position: Inclusive date of Membership: 2020-Present

JOMARI V. FLORES

Top40 Kalawaan St. Darangan Binangonan Rizal

Jomariflores2000@gmail.com

Educational Background

	Name of School	Year Attended
College:	University of Rizal System - Binangonan **Course:** BS Information Technology	2020 - present
High School:	Vicente Madrigal Integrated School	2014-2018
Elementary:	Kabisig Elementary School	2008-2014

Seminar and Training Attended

Organization/s Affiliation

Organization Name: College of Computer Studies -Student Body
Position: Member, 2020-2022

Organization Name: j-Connect Student Society
Position: Member, 2020-2022

ERIKA NIÑA A. ARAGONES

009 Bilog St. Batingan Binangonan Rizal
jaeketyronecraige@gmail.com

Educational Background

	Name of School	Year Attended
College:	University of Rizal System - Binangonan **Course:** BS Information Technology	2020 - present
High School:	Mahabang Parang National High School	2014
Elementary:	Binangonan Elementary School	2007

Seminar and Training Attended

Webinar: Introduction to UI/UX Designing Using Figma
Via Zoom
October 14, 2022

Webinar: Introduction to Mobile Application using Flutter
Via Zoom
Nov 26, 2021

Teach Tech Project: IT's Basics
Via Zoom
October 28, 2022

Organization/s Affiliation

Organization Name: College of Computer Studies -Student Body
Position: Member, 2020-2022

Organization Name: i-Connect Student Society
Position: Member, 2020-2022

JOEMARI GETIZO

DC. TONGOHAN St, Brgy. Tandang Kutyo, Tanay, Rizal
getizojoemari@gmail.com

Educational Background

	Name of School	Year Attended
College:	University of Rizal System - Binangonan	2020 - present
Course:	BS Information Technology	
High School:	San Ildefonso College	2014
Elementary:	Ilaya Elementary School	2008

Seminar and Training Attended

Unity 3D
San Ildefonso College
Feb 28, 2020

Autodesk 3ds Max
San Ildefonso College
Oct 18, 2019

Robotics
San Ildefonso College
August 3, 2019

Scratch Programming
San Ildefonso College
April 3, 2019

CM Asia Learning
San Ildefonso College
April 15, 2018

Organization/s Affiliation

Organization Name: College of Computer Studies -Student Body
Position: Member, 2020-2022

Organization Name: i-Connect Student Society
Position: Member, 2020-2022

JHERWIN A. JALINA

320 T-Daria Str. Niogan Pililla Rizal
Jalinajherwin1@gmail.com

Educational Background

	Name of School	Year Attended
College:	University of Rizal System - Binangonan **Course:** BS Information Technology	2020 - present
High School:	Malaya Nation High school	2014-2018
Elementary:	Niogan Elementary School	2008-2014

Seminar and Training Attended

Basketball Training Intertown
Imatong covered court Pililla Rizal
October 18, 2022

San Ildefonso College Leadership Training
December 2018

Organization/s Affiliation

Organization Name: San Ildefonso College kenosis club
Position: Grade 11 representative 2018

Organization Name: College of Computer Studies -Student Body
Position: Member, 2020-2022

Organization Name: j-Connect Student Society
Position: Member, 2020-2022

JORGE STANLEY B. TALOSIG

Lot 7 Blk 54, Brgy. Darangan, Binangonan, Rizal
georgetalosig203@gmail.com

Educational Background

	Name of School	Year Attended
College:	University of Rizal System - Binangonan **Course:** BS Information Technology	2022 - present
High School:	Vicente Madrigal national High School	2019
Elementary:	Mabuhay Homes 2000 Elementary School	2012

Seminar and Training Attended

Teach Tech Its Basic
University of Rizal System
October 28, 2022

Organization/s Affiliation

Organization Name: College of Computer Studies -Student Body
Position: Member, 2020-2022

Organization Name: i-Connect Student Society
Position: Member, 2019