

# INDUSTRIAL TRAINING IAS3316

## INDUSTRIAL TRAININ REPORT

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August 2023

#### **ACKNOWLEDGEMENTS**

Praise be to Allah for granting me the perseverance, opportunity, and intellect to successfully conclude my industrial training as a student of Unisel. Over the course of my two-month internship at the company, I acquired valuable knowledge and garnered numerous experiences. This internship has served as a catalyst for my personal growth and development, enriching me as an individual. I am immensely thankful and fortunate for the support and guidance of the individuals who have contributed to making this experience unforgettable.

I express my gratitude to Madam Marliza Binti Abdul Malik, my internship coordinator, and Mr. Hj. Azman Ariffin, my academic supervisor, along with Ts. Marina Binti Hassan, my industrial supervisor, for their invaluable guidance throughout this project, as well as their support for other fellow interns until the completion of their respective projects. Additionally, I wish to seize this moment to extend my heartfelt appreciation to my industrial supervisor for generously sharing her expertise and offering valuable insights during the project duration.

I extend my heartfelt gratitude to all my colleagues who have been my pillars of support throughout the development of this project. Their unwavering dedication, brilliant ideas, and continuous inspiration have been invaluable from the project's inception. Their hard work and kindness have not only facilitated the project's progress but have also enriched my understanding of both academic and real-world aspects of our field. The advice they've offered, not only regarding the project but also concerning life and academic matters, particularly within this course, will forever be cherished. I genuinely believe that this training experience has provided me with a deeper insight into the intricacies of operations and management within real-world project work.

Finally, I would like to express my deepest appreciation to my family members, who have been unwavering in their support throughout every circumstance. Their constant presence and encouragement have been a source of strength and motivation for me. I am profoundly grateful for their unending support and love. Thank you to my family for always being there for me.

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#### **CHAPTER 1**

#### INTRODUCTION

### 1.1 Industrial Training Overview

Industrial training, also known as internship or practical training, is a structured program designed to provide students with hands-on experience in a professional setting within a specified time frame. Typically lasting between 3 to 6 months, these training programs can take place in various industries, including both private companies and government organizations. The primary goal of industrial training is to enhance and supplement the theoretical knowledge and skills acquired by students in their academic studies. By immersing themselves in real-world work environments, students have the opportunity to apply their classroom learning to practical situations, gaining valuable insights and experiences.

Moreover, industrial training serves to improve students' performance and help them achieve their career objectives by providing them with exposure to industry practices, networking opportunities, and mentorship from experienced professionals. Overall, industrial training plays a crucial role in preparing students for the challenges of their future careers and equipping them with the necessary skills and knowledge to succeed in their chosen fields.

During their industrial training, students have the opportunity to acquire new technologies and work skills that may not have been covered in their academic studies. Upon successful completion of their training, they are typically awarded credits and can graduate from their studies. This transition from student to employee is often contingent upon the demonstration of competency, dedication, and a strong work ethic during the training period.

The industrial training at Unisel, supervised by the FCVAC faculty, began on October 2nd. Initially, the focus was on self-directed learning and crafting a mini project to improve my skills. On October 19th, Madam Marina assigned me a project. Knowing I would return to Bangladesh on November 29th, I aimed to expedite the project using a FastTrack approach. Madam Marina provided clear requirements, enabling a smooth process. Consequently, I chose the Waterfall methodology. By November 2nd, I finished the development phase and moved to software testing, diligently addressing any bugs. Finally, on November 13th, I completed the project successfully.

## 1.2 Industrial Training Timeline

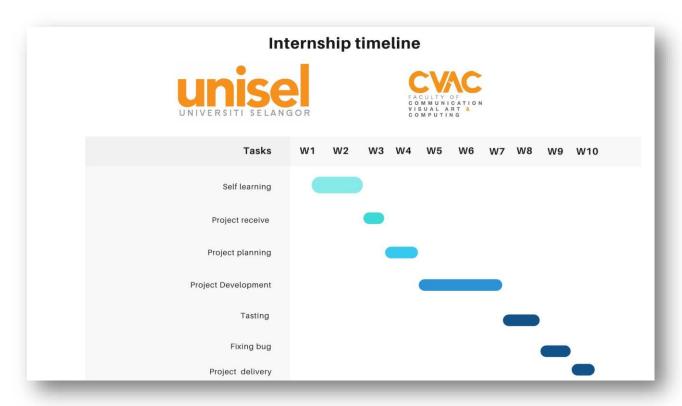


Figure 1: Industrial Training Timeline

The duration of Industrial training program is 9 weeks overall period from 2<sup>nd</sup> October 2023 until 27<sup>th</sup> November 2023

## 1.3 Company Overview

Universiti Selangor (Unisel), established in 1999, is a prominent public university located in Selangor, Malaysia. With a strong commitment to excellence in education, research, and community engagement, Unisel has emerged as a leading institution in the region.

At Unisel, the primary focus is on providing diverse academic programs across various disciplines, including business, engineering, information technology, arts, social sciences, and more. The university prides itself on offering innovative and industry-relevant curricula designed to meet the evolving needs of

the global workforce.

Led by a team of experienced faculty members and administrators, Unisel emphasizes a student-centric approach to learning, fostering a supportive and inclusive environment conducive to intellectual growth and personal development.

Beyond academics, Unisel actively engages in research and innovation initiatives, collaborating with industry partners and government agencies to address pressing societal challenges and contribute to national development goals.

Located in the dynamic state of Selangor, Unisel benefits from its strategic location within the vibrant economic and cultural hub of Malaysia. Its close proximity to major urban centers ensures easy access to resources, opportunities, and a rich cultural landscape for both students and faculty.

Overall, Universiti Selangor (Unisel) is dedicated to empowering future generations through quality education, research excellence, and community service, thus making a significant impact on the advancement of knowledge and the betterment of society.

#### 1.4 Company Organization Chart

At the top of the organizational chart, there is the Chancellor or President who serves as the overall head of the university. Reporting directly to the Chancellor or President, there is Vice-Chancellors responsible for specific areas such as academic affairs, research, student affairs, and administration.

Below them, there are usually academic faculties or colleges, each headed by a Dean. These faculties are further divided into departments or schools, each overseen by a Department Chair or Head of Program. Faculty members, researchers, and lecturers work within these departments, delivering academic programs and conducting research.

Apart from academic units, there are also various administrative and support departments responsible for functions such as human resources, finance, facilities management, student services, and marketing.



#### CARTA ORGANISASI FAKULTI KOMUNIKASI, SENI VISUAL DAN PENGKOMPUTERAN



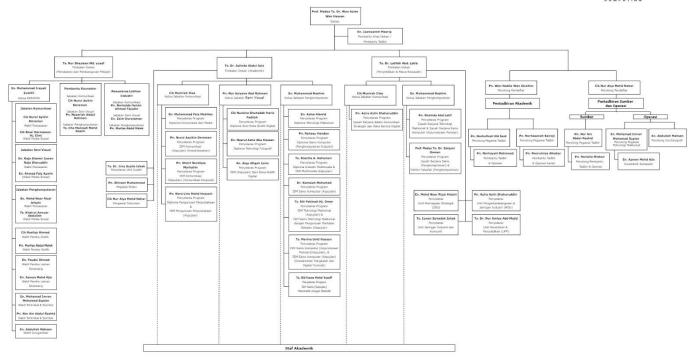


Figure 2.2 Organization Chart

#### **CHAPTER 2**

#### WORK ASSIGNMENTS

#### 2.0 Project Background Overview

The University Selangor (Unisel) Pre-Registration System represents a pioneering venture aimed at reshaping the traditional pre-registration landscape within the dynamic sphere of higher education. In an era where knowledge acquisition intertwines with rapid technological advancements, Unisel stands at the forefront, recognizing the imperative need for a modernized, digital platform. With educational institutions grappling with burgeoning enrollments, an expanding array of course offerings, and the urgent call for streamlined administrative processes, the Unisel Pre-Registration System emerges as a beacon of innovation.

Beyond merely addressing administrative efficiency, this platform endeavors to transcend conventional boundaries, seeking to redefine the very essence of pre-registration. By integrating cutting-edge technology and intuitive design principles, Unisel aims to not only automate tasks but also enhance the overall pre-registration experience for all stakeholders involved.

Central to the ethos of the Unisel Pre-Registration System is the pursuit of transparency. Through the implementation of robust communication channels and user-friendly interfaces, the system seeks to foster an environment of openness and collaboration. Program coordinators and students alike are empowered to engage in informed discussions, facilitating a symbiotic relationship characterized by mutual understanding and cooperation.

In essence, the Unisel Pre-Registration System represents more than just a technological advancement; it embodies a commitment to excellence, transparency, and collaboration. Through its implementation, Unisel reaffirms its dedication to providing a seamless and enriching educational experience, paving the way for a future where technology serves as an enabler of progress and empowerment within higher education.

#### 2.1 Problem Statement

The current administrative framework within the university presents several significant challenges that hinder operational efficiency and user experience. One notable issue is the reliance on semi-automated processes, which are not only time-consuming but also prone to errors and inconsistencies. These outdated procedures not only consume valuable time and resources but also impede the university's ability to adapt to the fast-paced nature of modern academia.

Additionally, there is a glaring lack of systematic event management practices, resulting in a disorganized and chaotic environment during important university events and activities. Without proper planning and coordination, events may suffer from logistical challenges, communication breakdowns, and suboptimal outcomes, ultimately impacting the university's reputation and stakeholder satisfaction.

Moreover, the existing system exhibits rigid structures that offer limited flexibility in course selection, hindering students' ability to customize their educational experiences according to their interests, career goals, and learning preferences. This lack of flexibility may result in dissatisfaction among students and faculty alike, as they feel constrained by outdated policies and procedures.

- Semi-automatic and time-consuming processes
- Lack of Systematic Event Management
- Lack of Systematic Event Management
- Limited User Visibility and Engagement
- Limited Flexibility in Course Selection
- Technological Obsolescence

In summary, addressing these challenges requires a comprehensive overhaul of the university's administrative framework, including the adoption of modern technologies, the implementation of systematic event management practices, and the promotion of transparency, flexibility, and user engagement. By addressing these issues head-on, the university can unlock new opportunities for growth, innovation, and excellence in higher education.

## 2.2 Objectives

The primary objectives of the Unisel Pre-Registration System are to streamline the pre-registration process for both students and program coordinators. This entails enabling program coordinators to initiate pre-registration events with clearly defined start and end dates, ensuring efficient scheduling and organization. Simultaneously, the system aims to provide students with easy access to pre-registration events, facilitating seamless participation and course selection.

Additionally, the system serves as a comprehensive repository for semester and course details, offering program coordinators a centralized hub for managing and updating essential information. Centralized approach streamlines administrative tasks, reduces redundancy, and ensures accuracy in semester and course-related data management.

In summary, the Unisel Pre-Registration System is designed to simplify, streamline, and enhance the pre-registration experience for all stakeholders involved, ultimately contributing to a more efficient and transparent academic process.

- To simplify the pre-registration process for students and program coordinator
- To enable program coordinator to initiate pre-registration events with defined start and end dates.
- To allow students to easily view and participate in pre-registration events.
- To enhance communication between students and program coordinator regarding pre-registration.
- To provide a centralized system for managing semester and course details.

#### 2 Justification project module

#### 2.3 Vision of the project

Universiti Selangor (UNISEL) is driven by a profound vision to establish itself as a leading institution of higher learning in Malaysia, characterized by its unwavering dedication to providing education and training of unparalleled quality and relevance. Central to this vision is the commitment to nurturing graduates who transcend mere competence, equipped not only with the necessary skills and knowledge but also imbued with the adaptability and foresight to navigate the

dynamic landscapes of both industry and society.

At the core of UNISEL's ethos are its fundamental values, which serve as guiding principles in all endeavors:

- Excellence: UNISEL strives for excellence in all aspects of its educational offerings, seeking to provide students with the highest standard of education and training. Through rigorous academic programs, innovative teaching methodologies, and state-of-the-art facilities, the university endeavors to cultivate a culture of excellence that permeates every facet of its operations.
- **Integrity:** Upholding the highest ethical standards is paramount at UNISEL. The university is committed to fostering an environment of trust, honesty, and accountability, where integrity is upheld not only in academic pursuits but also in all interactions within the university community and beyond.
- Innovation: UNISEL prides itself on being at the forefront of innovation in teaching, learning, and research. By embracing emerging technologies, adopting progressive pedagogical approaches, and fostering a culture of creativity and experimentation, the university seeks to continuously push the boundaries of knowledge and discovery.
- Collaboration: Recognizing the importance of collaboration in achieving its mission,
   UNISEL actively seeks partnerships with industry, government, and the community.
   Through strategic alliances and collaborative initiatives, the university endeavors to
   leverage collective expertise and resources to address complex challenges and drive
   positive change.
- Social Responsibility: UNISEL acknowledges its role as a responsible member of society and is committed to contributing to its development. Whether through community outreach programs, research endeavors addressing pressing societal issues, or initiatives aimed at promoting sustainability and social justice, the university strives to make a meaningful impact beyond the confines of its campus.

In essence, Universiti Selangor (UNISEL) is not only dedicated to academic excellence but also to fostering a culture of integrity, innovation, collaboration, and social responsibility. Grounded in these values, the university endeavors to fulfill its vision of producing graduates who are not only proficient professionals, but also compassionate and socially conscious leaders poised to make a positive difference in the world.

#### 2.3.1 Mission of the project

Universiti Selangor (UNISEL) is deeply committed to cultivating an exemplary learning atmosphere conducive to the development of proficient, principled professionals, and scholars. This dedication is manifested through several key initiatives:

- Provision of Quality Education and Training: UNISEL is dedicated to delivering top-tier
  educational programs across various disciplines and levels. Through a team of seasoned
  faculty members, the university ensures that its curriculum remains relevant to industry
  demands, equipping students with the necessary knowledge and skills to excel in their chosen
  fields.
- 2. Fostering a Supportive Learning Environment: Central to UNISEL's mission is the creation of a nurturing learning environment that empowers students to thrive. The university invests in modern facilities, cutting-edge technology, and ample resources to facilitate comprehensive learning experiences. From well-equipped laboratories to extensive libraries and student support services, UNISEL strives to provide students with the tools they need to succeed academically and personally.
- 3. Cultivating Competent, Ethical Graduates: Beyond academic excellence, UNISEL places a strong emphasis on cultivating ethical and socially responsible graduates. The university endeavors to instill in its students a sense of integrity, empathy, and a commitment to making a positive impact on society. Through various experiential learning opportunities, community engagement initiatives, and ethical leadership development programs, UNISEL aims to nurture well-rounded individuals who are not only proficient in their respective fields but also conscientious global citizens.

With unwavering dedication to its mission, UNISEL is confident in its ability to produce graduates who are not only skilled and ethical but also poised to become catalysts for positive change in their communities and beyond.

## 2.3 Project Requirements

Hardware Requirement	Software Requirement
Laptop - Intel(R) Core (TM) i5-8250U CPU @ 1.60GHz 1.80 GHz	Xampp
Memory (RAM) – 16.00 GB	Visual Studio Code
Display type – Nano Edge display	Operating System – Windows 11
Logitech keyboard	Google Chrome
Logitech mouse	Microsoft office

Table 2. 1: Projects Requirement

## 2.3.1 Developments tools

#### 2.3.2 Visual Studio Code (VS Code)

Visual Studio Code, an open-source source-code editor developed by Microsoft, plays a pivotal role in composing and editing source code for the Unisel Pre-Registration System project. Renowned for its lightweight design, VS Code offers extensive customization options and supports multiple programming languages. Within the project, this versatile editor proves invaluable, providing essential features like syntax highlighting, autocompletion, and a vast selection of extensions. Its flexibility is further enhanced by the availability of numerous extensions and plugins, catering to the diverse technological requirements of web development. As a result, Visual Studio Code serves as a cornerstone tool, empowering developers to efficiently navigate and manipulate code to meet project objectives.

#### **2.3.3 XAMPP**

XAMPP, a web server solution stack developed by Apache, is a freely available and open-source platform designed to be cross-platform. It integrates Apache, MariaDB, PHP, and Perl

to provide a comprehensive development environment. In the context of the Unisel Pre-Registration System project, XAMPP functions as a local web server environment for development purposes. This allows developers to test the application locally before deploying it to a live server. Notably, MariaDB, included in XAMPP, serves as the project's database management system, housing critical data such as user details and pre-registration history. Additionally, PHP, supported by XAMPP, handles server-side scripting tasks, including user request processing, database interactions, and dynamic content generation for the web application. Together, these components form a robust foundation for efficient development and testing of the Unisel Pre-Registration System.

# 2.4 User Scope

Project UPRS											
User	Description										
Admin (Program Coordinator)	The administrator, also known as the Program Coordinator,										
	is responsible for overseeing the system and managing all										
	of its functionalities.										
User (Student)	The user, also referred to as the student, is an individual										
	who utilizes the system.										

Table 2. 2: User Scope for Project 1 and Project 2

# 2.5 System Scope

System	Description
Login / Register	Both users and administrators can utilize the system to log in
	and access its features. However, only users have the
	capability to register for the system.
Semester and Course Management	The administrator has the authority to manage semesters and
	courses within the system. This includes the ability to modify,
	delete, or add new semesters, as well as the corresponding
	courses.
User Management	The administrator has the authority to delete user data if they
	suspect suspicious activity or behavior.
Pre-Registration	The administrator is empowered to initiate pre-registration
Event Management	events, while users, acting as students, have the capability to
	utilize the system to register for pre-registration. This involves
	selecting their subjects for the upcoming semester.
Pre-Registration Form	Here, users have the ability to fill out their desired subjects for
	the upcoming semester.
Pre-Registration	Both users and administrators can access the pre-registration
History	history. Users can view their own history, while administrators
	have the authority to view the history of every student.

Table 2. 3: System Scope

#### **CHAPTER 3**

#### **APPROACH**

#### 3.0 Introduction

The work life cycle represents the stages individuals undergo in their careers, from recruitment to retirement. Similarly, the Waterfall methodology offers a structured approach to project management, ideal for clear and stable project requirements. It progresses sequentially through planning, design, implementation, testing, and deployment phases, ensuring predictability and stability. However, its rigidity may not suit projects with evolving needs. Understanding context is key in selecting the appropriate methodology.

#### 3.1 Deliverables

## 3.1.1 Work Life Cycle

The work life cycle encompasses the different phases of experiences individuals undergo during their employment or practical endeavors. Beginning with recruitment, it progresses through various stages until concluding with resignation, termination, or retirement. This employee life cycle model is typically broken down into several key stages. Initially, individuals are recruited into a position, followed by their onboarding and integration into the organization. Subsequently, they engage with development opportunities to enhance their skills and career progression. As their tenure progresses, employees may transition into new roles or take on additional responsibilities. Finally, the cycle concludes with the end of their employment, which may occur due to resignation, termination, or retirement. This life cycle mirrors the journey individuals undertake as they navigate through their working lives, including their experiences with education and professional development, such as the completion of studies at a university.

In our context, the Waterfall methodology is considered advantageous because it relies on a well-defined process. This approach proves especially beneficial when dealing with clear and straightforward requirements, and when there are no expected changes to the project scope. The Waterfall methodology follows a sequential approach, where each phase of the project, such as planning, design, implementation, testing, and deployment, is completed before moving on to the next

phase. This structured approach ensures that all requirements are clearly understood and documented before proceeding, minimizing the likelihood of misunderstandings or scope creep. Additionally, the Waterfall methodology provides a sense of predictability and stability, making it easier to plan and manage project timelines and resources effectively. However, it's worth noting that the Waterfall methodology may not be suitable for projects with evolving or uncertain requirements, as it lacks flexibility to accommodate changes once the project is underway.

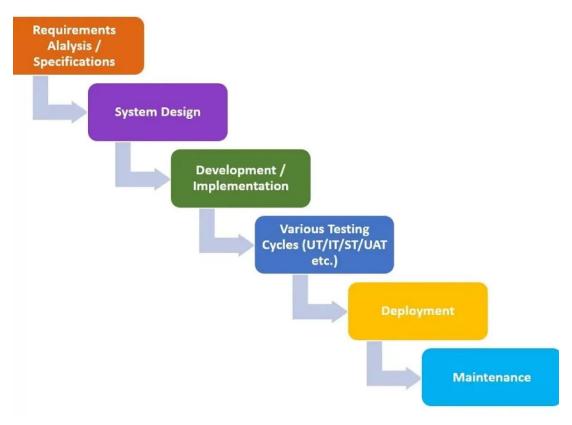


Figure 3 Waterfall methodology.

#### 3.1.1 Phase 1- Requirement

During this phase, the focus is on collecting information from clients or endusers regarding their requirements and desired outcomes from the system. In this particular scenario, the project requirements were obtained through face-to-face consultations with Madam Marina Binti Hassan. This approach allowed for a comprehensive and direct exchange of crucial information, ensuring a clear understanding of the project objectives and expectations. Through open communication and active engagement with Madam Marina, pertinent details were gathered, including specific functionalities, features, and performance criteria desired for the system. This collaborative process not only facilitated the gathering of requirements but also fostered a collaborative environment conducive to addressing any concerns or clarifications that arose during the consultation sessions. As a result, the project team was able to establish a solid foundation for proceeding with the development phase, with a thorough understanding of the client's needs and expectations.

## **3.1.1.2** Phase 2 – Design

During this phase, we embarked on the development of both the logical and physical designs of the project. The logical design phase involved the conceptualization of theoretical solutions, where a thorough exploration of various design scenarios took place. This stage demanded careful analysis and creative brainstorming to envision potential solutions that align with project objectives.

Following the theoretical design phase, we transitioned into the physical design phase. Here, definitive decisions were made regarding the selection of necessary components to actualize project requirements. This encompassed the specification of software, hardware, and data sources essential for system implementation. Notably, critical choices were made, including the adoption of tools such as VS Code and xampp for system development. These decisions were informed by the requirements identified during the theoretical design stage, ensuring alignment with project objectives and feasibility considerations.

#### 3.1.1.3 Phase 3 – Implementation

This stage marks the commencement of the implementation process, where the actual coding work begins. The coding process initiates with establishing connections to the database and addressing other coding requirements. It is worth noting that due to the comprehensive design groundwork laid out in previous stages, this phase tends to be relatively short. Following the predefined roadmap established in the initial phases, each unit of code is meticulously tested upon completion. The culmination of integrating all

individual components results in the creation of the Unisel Pre-Registration system, representing the final product.

#### **3.1.1.4** Phase 4 – Testing

In this stage, thorough testing protocols were implemented to verify compliance with project specifications and to pinpoint any potential system debugging requirements. Comprehensive evaluations of data validation were carried out to confirm the system's handling of erroneous data, including ensuring that numeric fields reject non-numeric entries. Additionally, user acceptance testing was conducted with selected students from Unisel to validate the system's functionality from the perspective of end-users. This rigorous testing phase aimed to ensure the system's reliability, accuracy, and usability prior to its deployment.

Go to APPENDIX A for more information.

#### 3.1.1.5 Phase 5 – Maintenance

After the product release, the Maintenance phase of the Unisel Pre-Registration System project commences. During this stage, the focus is on providing continuous support and implementing enhancements. This includes addressing any issues reported by users, resolving bugs, and incorporating incremental updates to align with evolving requirements. Continuous monitoring is essential to ensure that the system maintains optimal performance, security, and adaptability. By prioritizing ongoing maintenance and support, this phase aims to ensure that the system remains responsive and well-maintained, thereby facilitating sustained efficiency in academic processes at Universiti Selangor.

## 3.1.2 Entity Relationship Diagram

An Entity-Relationship Diagram (ERD) serves as a visual representation of the relationships between entities within a database. This diagram illustrates how different entities interact with one another and provides a clear overview of the database's structure. By depicting entities as boxes and relationships as lines connecting them, an ERD offers valuable insights into the data model, including entity attributes and their associations. ERDs play a crucial role in database design and development, aiding in the planning, implementation, and maintenance of relational databases. They serve as a communication tool between stakeholders, helping to ensure that all parties involved have a common understanding of the database schema and its underlying relationships. In summary, ERDs serve as blueprints for database architects and developers, guiding the creation of well-organized and efficient database systems.

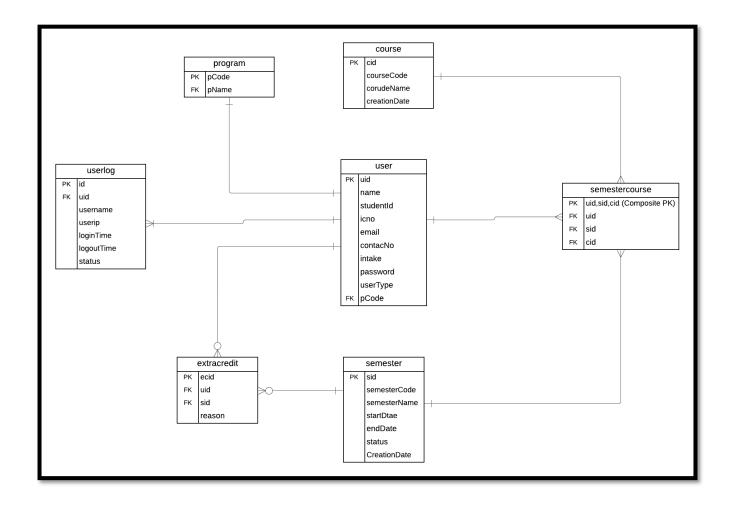


Figure 4 Entity Relationship Diagram

## 3.4 Screenshot of this project.

This page serves as the dashboard, providing the admin with access to various functionalities and activities. Here, the admin can perform a range of tasks and actions tailored to their role and responsibilities. These activities include but are not limited to managing user accounts, accessing reports and analytics, overseeing system settings, and performing administrative tasks such as data management and configuration adjustments. The dashboard acts as a centralized hub where the admin can efficiently navigate through different features and sections of the system, ensuring smooth and effective management of the platform. Additionally, the dashboard may offer customizable options, allowing the admin to personalize their workspace and prioritize the activities most relevant to their needs. Overall, the dashboard serves as a comprehensive tool for the admin to streamline their workflow and facilitate efficient administration of the platform.

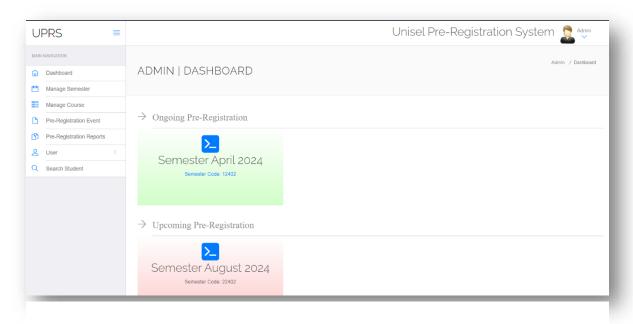


Figure 5 Admin dashboard.

This is the manage semester page for admin.

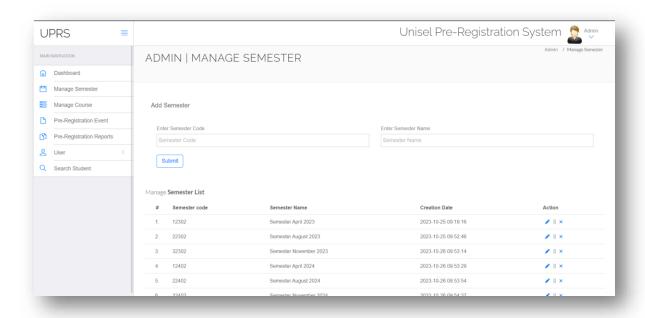


Figure 6 Manage semester for admin

This is the manage course page for admin.

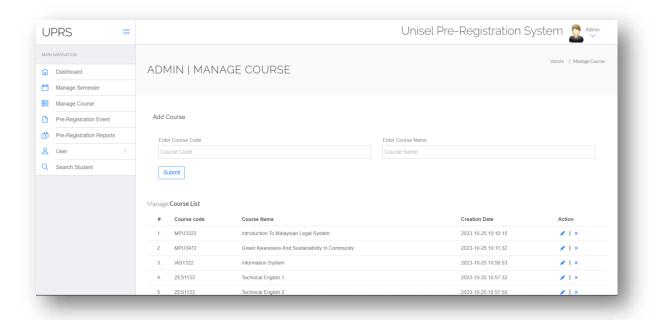


Figure 7 Manage course page for admin.

This page is Pre-Registration event page for admin.

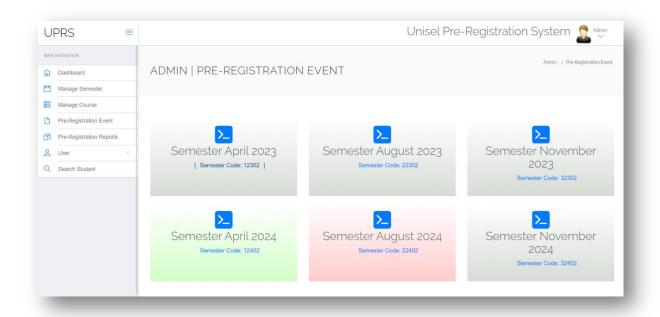


Figure 8 Pre-Registration event for admin.

After selecting a semester this page will appear to add start and end event date.

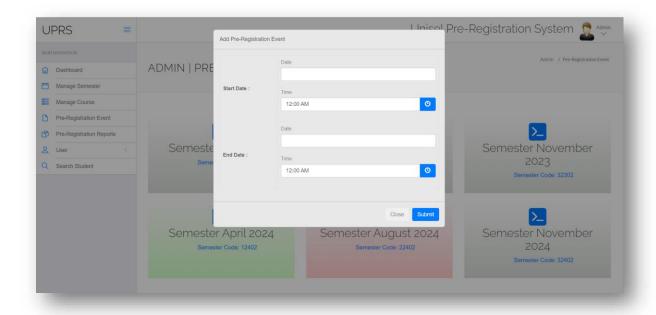


Figure 9 After selecting a semester this page for admin.

This page is the Pre-Registration history for admin.

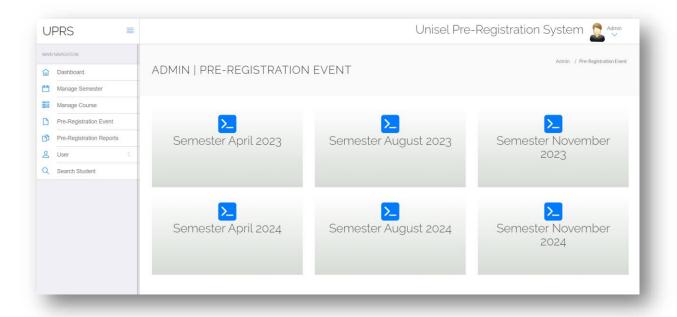


Figure 10 Pre-Registration history for admin.

This is the Pre-Registration History page. It will appear after clicking a semester.

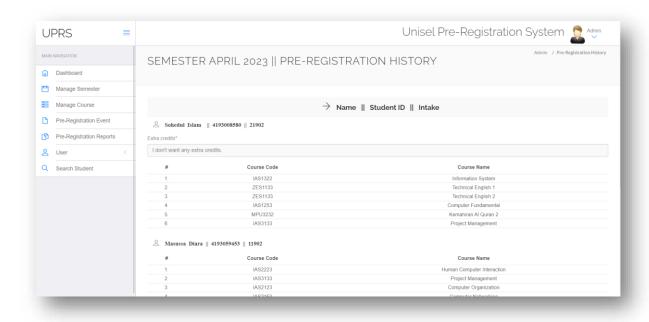


Figure 11 Pre-Registration History page for admin.

This is the Manage Users page for admin.

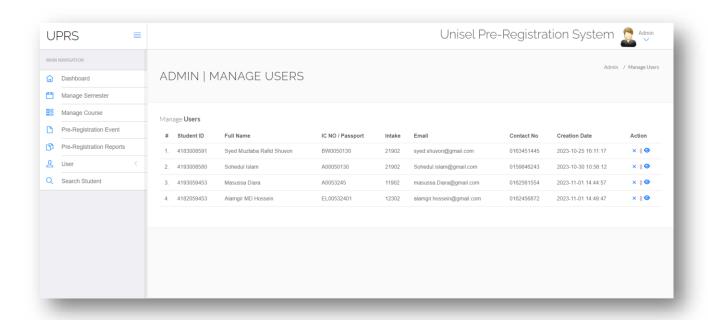


Figure 12 Manage Users for admin.

This page is for admin to monitor user's activity.

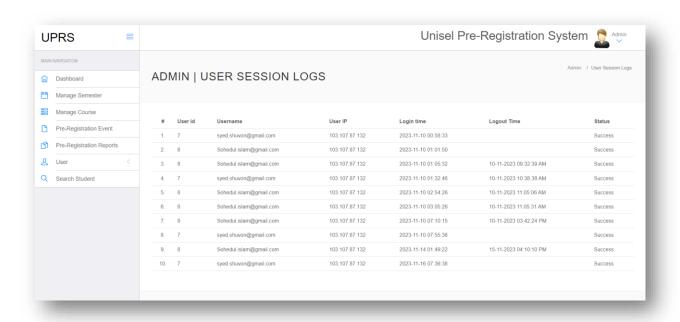


Figure 13 Manage Users page for admin.

This page is for admin to search students by name or student id.

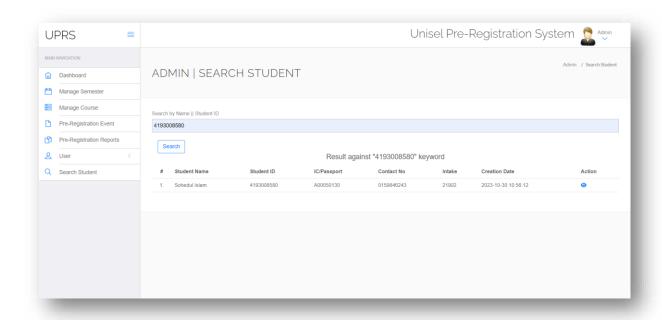


Figure 14 Search student.

This page is the home page of the user/student and the operation listed are what the user can do.

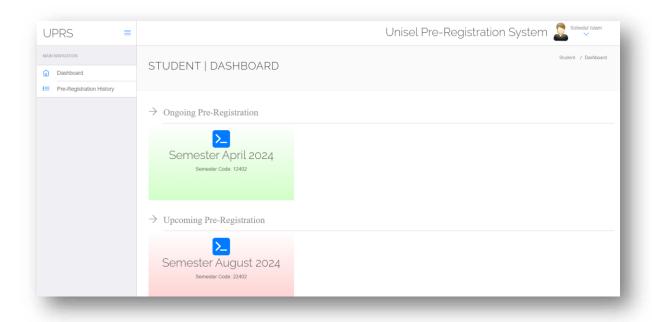


Figure 15 User dashboard.

## This page is for Pre-Registration.

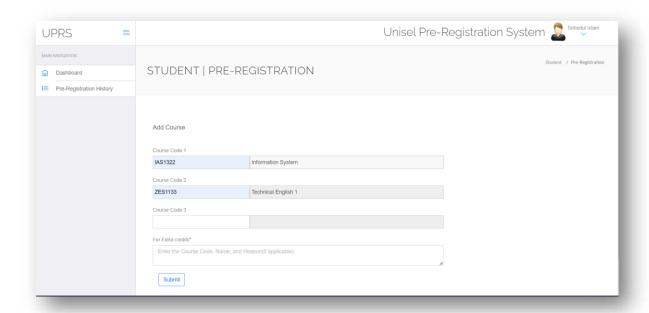


Figure 16 Pre-Registration for user.

This page is Pre-Registration History for the students.

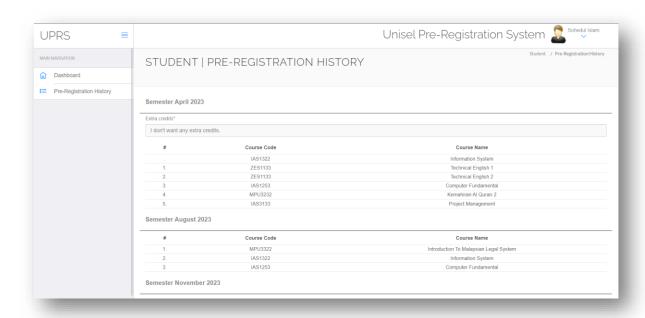


Figure 17 Pre-Registration History for the user.

#### **CHAPTER 4**

## 4.0 Conclusion & Recommendation

In conclusion, the Unisel Pre-Registration System project has achieved significant milestones in enhancing the efficiency and effectiveness of academic processes at Universiti Selangor. Through meticulous planning, diligent development, and thorough testing, the system now stands as a valuable asset for administrators, students, and faculty members alike.

The implementation of Visual Studio Code and XAMPP as central tools for source code editing and local web server hosting has greatly facilitated the development and testing phases. These versatile and user-friendly platforms have streamlined the development process and contributed to the successful delivery of the project.

Moving forward, it is recommended that continuous monitoring and maintenance of the system be prioritized to ensure its optimal performance and longevity. Regular updates and enhancements should be made to address emerging needs and technological advancements, thereby ensuring the system remains relevant and efficient in meeting the evolving requirements of the academic community.

Furthermore, ongoing training and support should be provided to users and administrators to maximize their utilization of the system's features and functionalities. This will foster a culture of continuous improvement and innovation, driving the sustained success of the Unisel Pre-Registration System.

In summary, the completion of the Unisel Pre-Registration System project marks a significant milestone in enhancing academic administration processes at Universiti Selangor. By leveraging modern technologies and best practices in project management, the system has laid a solid foundation for future advancements and innovations in academic management systems.

#### REFERENCES

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# APPENDIX A

				Test Case	For Unisel Pr	e-Regist	ration System						
	ct Name:		UPRS										
	ile Name:		login										
Crea	ated By:		Rafid										
	ion Date:	(	03/11/2023										
Revi	iewd By		Rafid										
Test Scenario ID	Test Scenario Description	Test case ID	Test Case Description	Test Steps	Precondition	Test Data	Post Condition	Expected Result	Actual result	Status	Excuted By	Excuted Date	Comments (if any)
TS001_1	login	TC001_1	Admin login with valid input-Positive Test Case	1.Enter login page.     2.Enter valid username password.     3.Successfully redirect into The admin page.	The admin must have an account	Pass	Admin will redirect to the admin panel page.	Admin will successfully login and redirect to the admin panel page.	Expected result achieved	Active	Admin	02/11/2023	No Comments
TS001_2	login	TC001_2	Admin login with invalid input-	1.Enter login page.     2.Enter invalid username password.     3.unsuccessfully redirect into The admin page.     Back to the home page.	The admin must have an account	Pass	Admin will not redirect to the admin panel page.	Admin will unsuccessfull y login and redirect to the home page.	result	Active	Admin	02/11/2023	No Comments
TS001_3	login	TC001_3	User login with valid input-Positive Test Case	1.Enter login page.     2.Enter valid username password.     3.Successfully redirect into The admin page.	The user must have an account	Pass	User will redirect to the admin panel page.	User will successfully login and redirect to the admin panel page.	Expected result achieved	Active	User	02/11/2023	No Comments
TS001_4	login	TC001_4	User login with invalid input- NegativeTest Case	1.Enter login page.     2.Enter invalid username password.     3.unsuccessfully redirect into The admin page.     Back to the home page	The user must have an account	Pass	User will not redirect to the admin panel page.	User will unsuccessfull y login and redirect to the home page.	result	Active	User	02/11/2023	No Comments

Figure 18 Test case for user login.

				Test C	ase For Unise	I Pre-Reg	istration System						
	ct Name:		PRS										
	le Name:	User											
Crea	ated By:	R	afid										
Creat	ion Date:	07/1	1/2023										
Revi	ewd By	R	afid										
Test Scenario ID	Test Scenario Description	Test case ID	Test Case Description	Test Steps	Precondition	Test Data	Post Condition	Expected Result	Actual result	Status	Excuted By	Excuted Date	Comment (if any)
TS007_1_1	View User	TC007_1_1	user	Login to the system with admin's username and password.     Go to user, then manage user page.     View user information	Admin must login	Pass	Admin will be able to view user information	Admin will successfully able to view user information	Admin view user information successfully	Active	Admin	07/11/2023	No Comments
TS007_1_2	Delete User	TC007_1_2	delete user	Login to the system with admin's username and password.     Go to user, then manage user page.     Delete user information	Admin must login	Pass	Admin will be able to delete user information	Admin will successfully able to delete user information	Admin delete user information successfully	Active	Admin	07/11/2023	No Comments
TS007_2_1	View user session logs	TC007_2_1	view user	Login to the system with admin's username and password.     Go to user, then manage user page.     Go to user session logs.     View user session logs.	Admin must login	Pass	Admin will be able to view user session logs	Admin successfully able to view user session logs	Admin view user session logs successfully	Active	Admin	07/11/2023	No Comments

Figure 19 Test case for admin login.

				Test Ca	se For Unisel P	re-Regis	tration System	ı					
	ct Name:		UPRS										
	ıle Name:	F	Registration										
	ated By:		Rafid										
	ion Date:	(	06/11/2023										
Rev	iewd By		Rafid										
Test Scenario ID	Test Scenario Description	Test case ID	Test Case Description	Test Steps	Precondition	Test Data	Post Condition	Expected Result	Actual result	Status	Excuted By	Excuted Date	Comments (if any)
TS002_1	User Registration	TC002_1	User create new account	Ente to singup panel     Fill the singup from     Fill up email     Enter password     Enter the same     password again.     Click Comfirm.	User must go to the signup page	Pass	User must be abale to creat an account.	User successfully abale to creat an account.	Registration success	Active	user	06/11/2023	No Comments
TS002_2	User Registration	TC002_2	User create new account	Ente to singup panel     Fill the singup from     Fill up email     Enter password     Enter a different     password again.     Click Comfirm.	User must go to the signup page	faill	User must not be abale to creat an account.	User wont be abale to successfully creat an account.	Registration success	Deactive	user	06/11/2023	No Comments
TS002_3	User Registration	TC002_3	User create new account	Ente to singup panel     Fill the singup from     SFill tup an email that already registered     Enter password     Enter the same password again.     Click Comfirm.	User must go to the signup page	Pass	User must not be abale to creat an account.	User successfully abale to creat an account.	Registration success	Active	user	06/11/2023	No Comments

Figure 20 Test case for registration.

				Test Case	For Unisel Pr	e-Regis	ration System						
Proje	ct Name:		UPRS										
Modu	ıle Name:	For	got Password										
Crea	ated By:		Rafid										
	ion Date:	(	06/11/2023										
Revi	iewd By		Rafid										
Test Scenario ID		Test case ID	Test Case Description	Test Steps	Precondition	Test Data	Post Condition	Expected Result	Actual result	Status	Excuted By	Excuted Date	Comments (if any)
TS003_1	User password recovery.	TC003_1	User recover his password.	Go to Password recovery page.     Fill in the account details.     Redirect to fill new password page     Fill up the new password fill.     Confirm the new password fill.	User must have a account.	Pass	User should be able to recover password.	User should be able to successfully recover password.	Password recoverd successfull.	Active	User	06/11/2023	No Comments
TS003_2	User password recovery	TC003_2	User recover his password	Go to Password recovery page.     Fill in incorrect account details.     Unsuccessfully redirect to fill new password page.	User must not have a account.	Pass	User should not be able to recover password.	User should not be able to successfully recover password.	Password recoverd unsuccessfull.	Active	User	06/11/2023	No Comments
TS003_3	Admin password change.	TC003_3	Admin change his password.	Loin to admin account.     Go to change password page.     Fill up the new password fill.     Confirm the new password fill.	User must have a account.	Pass	User should be able to change password.	User should be able to successfully change password.	Password change successfull.	Active	Admin	06/11/2023	No Comments
TS003_4	Admin password Change.	TC003_4	Admin change his password.	1. Loin to admin account.     2. Go to change password page.     3. Fill up the new password field. Fill up different password in confirm the new password fill.     4. Fill up different password in confirm the new password in confirm the new password fill.	User must have a account.	Pass	User should not be able to change password.	User should not be able to successfully change password.	Password change unsuccessfull.	Active	Admin	06/11/2023	No Comments

Figure 21 Test case for forget password.

				Tes	t Case Foi	Unisel Pı	re-Regist	ration Syster	n					
Projec	Project Name: UPRS													
Modul	le Name:	Mana	ge Course											
Crea	ted By:	F	Rafid											
Creation	tion Date: 07/11/2023													
Revie	iewd By Rafid													
Test Scenario ID	Test Scenario Description	Test case ID	Test Case Description	Test Steps	Precon	ıdition	Test Data	Post Condition	Expected Result	Actual result	Status	Excuted By	Excuted Date	Comment (if any)
TS005_1	Add course	_	Admin can add course information	Login to the system with admin's username and password.     Go to manage course page.     Add course information	User show able to ad information	ld course	Pass	be able to add course information		Add course information success	Active	Admin	07/11/2023	No Comments
TS004_3	Edit semester	TC004_3	Admin ca semester information	n edit 1. Login to the system admin's username and password. 2. Go to manage semespage. 3. edit semester inform	be abl ster ser info	er should le to edit nester formation	Pass	User will table to edit semester information	successfully be able to ed	Edit semester it information success	Active	Admin	07/11/2023	No Comments

Figure 22Test case for manage semester.

				Tes	t Case For Unisel l	Pre-Regist	ration Syste	m					
Proje	ct Name:		UPRS										
Modu	le Name:	Mana	ge Course										
Crea	ited By:		Rafid										
Creati	on Date:	07/	11/2023										
Revi	ewd By		Rafid										
Test Scenario ID	Test Scenario Description	Test case ID	Test Case Description	Test Steps	Precondition	Test Data	Post Condition	Expected Result	Actual result	Status	Excuted By	Excuted Date	Comment (if any)
TS005_1	Add course		Admin can add course information	Login to the system with admin's username and password.     Go to manage course page.     Add course information	User should be able to add course information  User should be		User will be able to add course information	successfully be able to add	Add course information success	Active	Admin	07/11/2023 07/11/2023	No Comments
TS005_2	View course	10005_2	Admin can view course information	Login to the system with admin's username and password.     Go to manage course page.     View course information	able to view course information	Pass	be able to view course		information success	Active	Admin	0//11/2023	Comments
TS005_3	Edit course	TC005_3	Admin can edit course information	Login to the system with admin's username and password.     Go to manage course page.     dedictions     dictions	User should be able to edit course information	Pass	be able to	able to edit	Edit semester information success	Active	Admin	07/11/2023	No Comments

Figure 23 Test case for manage course.

Proied	ct Name:	Pre-Regis	stration Event		se For Unisel 1		,																				
Module Name: Created By: Creation Date: Reviewd By		pre																									
		Rafid 07/11/2023 Rafid																									
														Test Scenario ID	Test Scenario Description	Test case ID	Test Case Description	Test Steps	Precondition	Test Data	Post Condition	Expected Result	Actual result	Status	Excuted By	Excuted Date	Comment (if any)
														TS006_1	Start Pre- Registration Event	TC006_1	Admin can start Pre- Registration Event	Login to the system with admin's username and password.     Go to pre-Registration Event.     Select starting date     Select ending date     Start event.	Admin must login	Pass	Admin will be able to start Pre- Registration event	Admin successfully able to start Pre- Registration event	Start Pre- Registration event successfull	Active	Admin	07/11/2023	No Comments
TS006_2	View Pre- Registration Event	TC006_2	Admin can view Pre- Registration Event	Login to the system with admin's username and password.     Go to dashboard.     View the ongoing Pre-Registration Event.     View the upcoming Pre-Registration Event.	Admin must login	Pass	Admin will be able to view Pre- Registration event	Admin successfully able to view Pre- Registration event	View Pre- Registration event successfull	Active	Admin	07/11/2023	No Comments														
TS006_3_1	Complete Pre- Registration	- TC006_3_	User can complete Pre- Registration	Login to the system with user's username and password.     Go to dashboard.     View the ongoing Pre-Registration Event.     Enter the subject code for next semester.     Complete registration	User must login	Pass	User will be able to complete Pre- Registration	successfully	Complete Pre- Registration successfull	Active	User	07/11/2023	No Comments														
TS006_3_2	Complete Pre- Registration (Extra credit)	TC006_3_	User can complete Pre- Registration (Extra credit)	Login to the system with user's username and password.     Go to dashboard.     View the ongoing Pre-Registration Event.     Enter the subject code for next semester.     Complete registration	User must login	Pass	User will be able to complete Pre- Registration (Extra credit)	successfully able to complete Pre-	Complete Pre- Registration successful (Extra credit)	Active	User	07/11/2023	No Comments														
TS006_4_1	Print Pre- Registration history	TC006_4_1	Admin can print Pre- Registration history	Login to the system with admin's username and password.     Go to Pre-Registration history page.     Select the semester     Print Pre-Registration history.	Admin must login	Pass	Admin will be able to print Pre- Registration history	Admin successfully able to print Pre- Registration history	Print Pre- Registration history successfull	Active	Admin	07/11/2023	No Comments														
TS006_4_2	Print Pre- Registration history	TC006_4_2	User can print Pre- Registration history	Login to the system with user's username and password.     Go to Pre-Registration history page.     Select the semester     Print Pre-Registration history.	User must login	Pass	User will be able to print Pre- Registration history	User successfully able to print Pre- Registration history	Print Pre- Registration history successfull	Active	User	07/11/2023	No Comments														

Figure 24 Test case Pre-Registration Event.