**Chapter V**

TECHNICAL REQUIREMENTS

This chapter outlines the essential components that support the successful execution of the project, including the Project Rationale, Project Objectives, and Team Organization. It also highlights key aspects, such as performance and readability, which the project must adhere to in order to ensure its continuity and success.

**Project Rationale**

The Asian Development Foundation College has a rich history of producing graduates who have significantly contributed to various industries and communities. However, maintaining consistent communication and engagement with alumni has been a persistent challenge. Currently, there is no centralized system to effectively track, manage, and connect with alumni, making it difficult to foster long-term relationships, gather valuable feedback, and create opportunities for collaboration.

The Alumni Tracking System aims to address these challenges by establishing an organized, user-friendly platform that enables the institution to efficiently monitor and maintain alumni records. This system will streamline the process of updating contact information, tracking career progress, and facilitating engagement through events, surveys, and networking opportunities.

By implementing this system, the college can strengthen its alumni network, enhance its reputation, and provide a means for alumni to give back to their alma mater. It will also serve as a valuable tool for gathering insights to improve academic programs and build partnerships that benefit both current students and graduates. This initiative reflects the institution’s commitment to fostering a lifelong connection with its alumni, ensuring they remain an integral part of the Asian Development Foundation College community.

**Project Objectives**

The Alumni Tracking System aims to strengthen the relationship between Asian Development Foundation College and its graduates by providing an efficient platform for managing alumni information. This system will organize alumni data into directories and batch listings, facilitating easy access and fostering a sense of community among graduates. It also seeks to track the current employment status of alumni, offering insights into their professional growth and achievements.

Additionally, the project will integrate features such as a job hub to connect alumni with career opportunities and an events section to promote participation in reunions, seminars, and other college activities. The system will streamline communication and create pathways for alumni to contribute to the institution through mentorship, networking, and resource sharing. By implementing robust data security measures, the platform ensures the privacy and protection of alumni information. These objectives collectively aim to build an engaged, supportive, and dynamic alumni network that benefits both the graduates and the institution.

**Project Description**

Shown in Figure 5.1, the **Project Team Organization** highlights the collaborative structure of the team. The team follows the principle of egoless collaboration, fostering an environment where every member is valued and encouraged to contribute. Open communication, mutual respect, and shared responsibility are at the core of their work culture, ensuring that diverse perspectives and skills are effectively utilized for the project's success.

**Project Team Organization**

The team follows the principle of egoless collaboration, creating an environment where each member is valued and encouraged to contribute. They emphasize open communication, mutual respect, and shared responsibility, utilizing the diverse perspectives and skills of all members





Alaysa Marie L. Abuder

Jerick Mercader



Project Planner Project Manager

UI/UX Designer

Programmer

Documentation Specialist

Jinky P. Ino

*Figure 1: Project Team Structure*

**Project Description**

**Project Planner** - Develops detailed project plans, including schedules, resource allocation, and risk management strategies. Creates a clear roadmap for project execution and ensures all elements are well-coordinated.

**Project Manager** - Oversees the project's execution, manages team performance, and ensures timely delivery within budget. Acts as the main point of contact, addressing issues and keeping the project on track.

**UI/UX Designer** - Designs user interfaces and experiences, focusing on creating intuitive, visually appealing, and user-friendly designs. Conducts user research to ensure the design meets user needs and preferences.

**Programmer** - Writes, tests, and maintains code for software applications or systems. Implements functionalities based on project requirements, debugging and troubleshooting to ensure optimal performance.

**Documentation Specialist** - Creates and manages project documentation, including plans and reports. Ensures clarity and accuracy in all written materials, supporting project execution and knowledge sharing*.*

**Training Plan**

The training plan is intended to guide ADFC staff in effectively presenting the Alumni Tracking System to alumni, students, and ADFC Staff. This comprehensive program will ensure that staff are well-versed in the system’s key features, functionalities, and benefits. It will equip them with the necessary skills to confidently navigate and demonstrate the system. By the end of the training, staff will be able to effectively communicate the value of the system, address user queries, and provide ongoing support to ensure the system’s successful adoption.

**Training Schedule**

|  |  |  |
| --- | --- | --- |
| **Time** | **Activities** | **Speaker** |
| 8:30 | Call time |  |
| 9:00 – 9:20 | Orientation for the  Alumni Tracking system | Jinky P. Ino and  Alaysa Marie L Abuder |
| 9:21-9:40 | Presentation of the overall system | Jerick Mercader |
| 9:41-10:00 | Staff hands-on testing of the system |  |
| 10:01- 10:10 | Final Overview of the system | Jinky P. Ino and  Alaysa Marie L Abuder |
| 10:11-10:20 | Snack Time |  |

*Table 5.1(Training Schedule)*

**Training Evaluation**

The success of the training session will be determined by the trainee's (personnel-in-charge) proficiency and mastery in using the system. To ensure a comprehensive evaluation, the following percentage-based criteria will be applied to assess the trainee's performance effectively.

Lecture - 30%

Hands on - 70%

Total = 100%

**Target budgetary Outlay**

|  |  |  |
| --- | --- | --- |
| **Miscellaneous Expenses** | **Price per unit** | **Amount Price** |
| Load for internet connection | 50.00(1 time) | 50.00 |
| User’s manual Photocopy | 5.00 (10pcs) | 50.00 |
| Miscellaneous | 500.00 | 500. 00 |
| Total |  | 600.00 |

**Test Plan**

The **test plan** for the ADFC Alumni Tracking System ensures the system functions effectively, meets user requirements, and safeguards data integrity. Testing includes unit testing to validate individual components like profile management and event handling, and integration testing to ensure seamless interactions between modules such as user roles and permissions. Functional testing will verify features like alumni data accuracy, job hub operations, and event registration. Usability testing evaluates the system’s interface for ease of navigation and responsiveness across devices, while performance testing examines system stability under load and database query response times. These tests ensure the system delivers a reliable and user-friendly experience.

**Security Plan**

The **security plan** focuses on protecting sensitive data and maintaining the confidentiality, integrity, and availability of the system. Key measures include user authentication through secure logins, role-based access control to restrict permissions, and encryption of sensitive data like alumni profiles and job hub information. Regular vulnerability assessments will identify potential security gaps, while firewalls and intrusion detection systems will safeguard the system from external threats. Backup and recovery protocols will be implemented to protect against data loss, ensuring continuous system operation and resilience against cyber risks.

**Maintenance Plan**

The **maintenance plan** for the ADFC Alumni Tracking System ensures the system operates efficiently and remains up-to-date with evolving needs. Regular maintenance activities include monitoring system performance, addressing bugs or errors, and applying necessary updates to enhance functionality. A schedule for database optimization, including cleanup of outdated records and ensuring data consistency, will be followed to maintain efficiency. Security updates will be applied promptly to protect against emerging threats, while regular backups will safeguard data integrity. User feedback will be collected to identify potential improvements, ensuring the system evolves to meet alumni and staff requirements. Documentation will be maintained to support troubleshooting, upgrades, and training for new personnel, ensuring the system's long-term reliability and relevance.

**Table of Activities**

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| **ID** | **Activities** | **Date Started** | **Date  Finished** | **Duration (weeks)** | **Predecessor(s)** |
| A | Groupings | 9/5/2024 | 9/5/2024 | 0.1 | -- |
| B | Title Proposal | 9/6/2024 | 9/25/2024 | 2.6 | A |
| C | Research on existing system | 9/23/2024 | 9/30/2024 | 1.4 | B |
| D | Data Gathering | 10/1/2024 | 10/2/2024 | 0.3 | C |
| E | User interface Design | 10/2/2024 | 10//2024 | 0.3 | D |
| F | Research paper | 10/17/2024 | 12/1/2024 | 6.6 | E |
| G | Front End Development | 10/3/2024 | 12/7/2024 | 8 | F |
| H | Back End Development | 10/3/2024 | 12/7/2024 | 8 | G |
| I | Database Implementation | 10/14/2024 | 10/20/2024 | 1.0 | H |
| J | System Responsiveness | 10/14/2024 | 10/23/2024 | 1.4 | I |
| K | Implement System Security | 10/23/2024 | 11/17/2024 | 3.4 | J |
| L | Testing & Debugging | 12/08/2024 | 12/12/2024 | 0.7 | J, K |
| M | Document Proof Reading | 12/2/2024 | 12/17/2024 | 2.3 | L |

*Table 5.2(Table of Activities)*

**Curriculum Vitae**

**Personal Information**

**Name:** Jerick Mercader

**Address:** Scandinavian Village 1, Brgy.100 Tacloban City

**Sex:** Male

**Civil Status:** Single

**Birthday:** July 4, 2000

**Course:** Bachelor of Science in Information technology (BSIT)

**Birth Place:** Tacloban City

**Educational Background**

**College**: Asian Development Foundation College P. Burgos St., Tacloban City

**Secondary:** Scandinavian National High School

**Elementary**: Scandinavian Elementary School

**Curriculum Vitae**

**Personal Information**

**Name:** Jinky P. Ino

**Address:** Brgy. Olotan Jaro, Leyte

**Sex:** Female

**Civil Status:** Single

**Birthday:** August 08,2003

**Course:** Bachelor of Science in Information technology (BSIT)

**Birth Place:** Jaro, Leyte

**Educational background**

**College:** Asian Development Foundation College P. Burgos St., Tacloban City

**Secondary:** Granja Kalinawan National High School

**Elementary:** Lorenzo C. Macayan Elementary School

**Curriculum Vitae**

**Personal Information**

**Name:** Alaysa Marie L. Abuder

**Address:** Brgy 107 Sta. Elena New Hope Village

**Sex:** Female

**Civil Status**: Single

**Birthday:** August 22, 2000

**Course:** Bachelor of Science in Information technology (BSIT)

**Birth Place:** Tacloban City, Leyte

**Educational background**

**College:** Asian Development Foundation College P. Burgos St., Tacloban City

**Secondary:** Cirilo Roy Montejo National High School

**Elementary:** Anibong Elementary school