

2024

# WIL Documentation



Jisedai

11/19/2024

# WIL DOCUMENTATION

# GROUP 19

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## Links:

CircleCI - <https://app.circleci.com/organization/circleci/Xfdd88HxV8R7iRpCneQwP2>

Github - <https://github.com/ST10031913/WILgroup19>

TeamFu - <https://teamfu.tech/epics/a73e0c3e-79e2-4ed9-b13a-1fe92565ffdd>

Website - <https://sohw.co.za/>

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## INTRODUCTION TO PROJECT

### JISEDAI SOFTWARE SOLUTIONS

### TECHNOLOGY SPECS AND TEAM



### Introduction to Jisedai

Jisedai is a dynamic group inspired by the Japanese term "Next-Generation," which signifies continuous improvement, innovation, and the courage to move beyond conventional boundaries. Guided by this philosophy, Jisedai aims to redefine technological solutions that address real-world challenges, particularly those with meaningful social impact.

Our team comprises dedicated members who bring unique skills and perspectives to every project. Saneliso Lehlohlwa, our team leader, provides visionary direction and fosters a collaborative environment. Liam Abraham, our vice-leader, brings exceptional technical expertise and strategic insight, ensuring that our projects are both innovative and practical. Hamzah Ballim contributes his experience in backend development, focusing on building robust systems that enhance our projects' efficiency and scalability.

Together, we tackle each project with a shared commitment to excellence, continuously exploring how emerging technologies can serve communities. Our current work for "Shadow of His Wings," a recovery NPO center, reflects our mission to empower organizations that are dedicated to positive change. Through this project, we're blending

advanced software development practices with our passion for impactful solutions, aspiring to set a new standard for the next generation of technology-driven services.

## **About the NPO**

Shadow of His Wings is a Christian-based drug rehabilitation centre dedicated to helping individuals overcome addiction and reclaim their lives through faith, support, and structured recovery programs. Founded on the principles of compassion, hope, and spiritual guidance, this centre provides a safe, nurturing environment where people struggling with substance abuse can find both the practical tools and emotional encouragement they need to heal.

At Shadow of His Wings, treatment goes beyond conventional rehab, emphasizing a holistic approach that includes physical, mental, and spiritual well-being. The center believes that addiction recovery is not just about stopping substance abuse but also about addressing underlying issues, rebuilding broken relationships, and instilling a sense of purpose and belonging. Through Bible studies, faith-based counselling, and community support, Shadow of His Wings integrates Christian values into each aspect of the rehabilitation process, encouraging residents to rediscover hope, peace, and meaning in their lives.

Offering a range of services like individual and group therapy, life skills training, spiritual counselling, and community outreach programs, Shadow of His Wings strives to empower its residents to overcome addiction and reintegrate into society with resilience, faith, and confidence. This organization also recognizes the importance of aftercare and support, providing resources to help prevent relapse and foster long-term recovery.

## NPO Certificate



Powered by CamScanner



- **Bootstrap:** To enhance styling and responsiveness, we may incorporate Bootstrap, a CSS framework that accelerates development with a standardized, visually appealing layout.

#### **Backend Technologies:**

- **C# with ASP.NET in Visual Studio:** The backend is developed in C# with ASP.NET using Visual Studio, enabling efficient server-side processing, security features, and easy integration with SQL databases.
- **SQL Database:** We are implementing a SQL database to securely store user data, including admin credentials, login details, and transaction history. SQL allows us to query data efficiently, providing reliable storage and access for the site's data.

#### **Payment Integration:**

- **PayPal API:** The website will integrate PayPal APIs to offer secure payment processing. This API will provide a familiar and reliable platform for users to make donations or service payments, adding credibility and ease of use to the website.

#### **Hosting Platform:**

- **AbsolutHosting:** The website will be hosted on AbsolutHosting, chosen for its reliability, scalability, and solid support for high-performance websites. AbsolutHosting's features align well with our requirements for uptime, data security, and performance, ensuring the site remains accessible to users around the clock.

## **Core Features and Specifications**

#### **User-Friendly Interface:**

- The interface is designed for ease of navigation with straightforward menus, clear labels, and a consistent design. Key pages include Home, About Us, Services, Contact, and Donations.
- **Responsive Design:** The design will adjust for various screen sizes to ensure a smooth user experience on all devices.

#### **Admin Panel and Database Integration:**

- **Admin Login:** A secure admin login page allows authorized personnel to access a control panel for managing content, viewing transactions, and tracking site activity. Admin credentials are stored in the SQL database with encryption.

- **Data Management:** The SQL database will hold user data, payment records, and service details, providing data integrity and allowing the admin to make informed decisions based on user interactions.

#### **Payment Gateway Integration:**

- **PayPal:** The integration of this API allows users to securely donate or make payments directly through the website. They will be redirected to PayPal payment, and upon completion, redirected back to the website for confirmation.
- **Transaction Security:** The API will offer encryption, reducing the risk of fraud and ensuring sensitive data is securely handled by industry-trusted providers.

#### **User Authentication and Authorization:**

- Admin User(built-in) data is securely stored in the SQL database, ensuring only authorized users can access administrative functions. This security measure supports the NPO's need to protect sensitive information.

### **Development and Deployment Process**

- **Development Environment:** Using Visual Studio, the team will develop, debug, and test the website in a streamlined environment. SQL database tools within Visual Studio make testing and database management efficient.
- **Version Control:** Git and GitHub are employed to manage code changes, track updates, and allow the team to collaborate effectively on new features and bug fixes.
- **Testing and Debugging:** We will conduct rigorous testing, particularly for the payment, login, and data retrieval functions. Unit tests and functional tests will ensure that each feature meets security, performance, and usability standards.
- **Hosting with AbsolutHosting:** Once testing is complete, the site will be deployed to AbsolutHosting. This choice offers robust server performance, secure data backups, and minimal downtime, ensuring a reliable user experience for the NPO and its visitors.

The development of the "Shadow of His Wings" website by Jisedai leverages a robust tech stack, secure payment gateways, and a trusted hosting platform with AbsolutHosting. By combining intuitive design, powerful backend functionality, and secure payment options, this website will empower the NPO to serve its community more effectively. This document serves as a foundational guide, ensuring the team maintains consistency and adheres to best practices as we bring the project to life

# Funding Decision for Absolute Hosting Domain and Hosting

For the NPO's website project, the decision to fund the domain and hosting on Absolut Hosting involves careful consideration of both the financial requirements and long-term sustainability of maintaining the website. Since the NPO, Shadow of His Wings, will be funding it themselves, here's a detailed breakdown of how the group (the project team and the NPO stakeholders) will approach the funding decision:

## Budget Planning and Allocation

- **Identify the Cost of Services:** The project team will first research the exact costs associated with Absolut Hosting, including the domain registration, hosting plans, security features (such as SSL certificates), and any optional add-ons or required upgrades.
- **Evaluate Hosting Plans:** Absolut Hosting may offer different hosting plans (e.g., shared, VPS, dedicated), each with its own pricing structure. The project team will recommend a plan based on the estimated traffic and technical needs of the NPO's website.
- **Calculate Total Cost Over Time:** Since hosting costs recur monthly or annually, the team will calculate the projected cost over a reasonable timeline, such as one to three years. This helps the NPO plan for long-term sustainability, ensuring the website remains funded without interruptions.

## Engagement with the NPO's Finance Team

- **Presentation of Options:** The project team will prepare a presentation outlining the different hosting plans from Absolut Hosting, their features, and associated costs. This includes a comparison of plans and any other hosting providers, if relevant, to show why Absolut Hosting is the most suitable choice.
- **Cost-Benefit Analysis:** A cost-benefit analysis will be provided, showcasing the benefits of hosting the website with Absolut Hosting, including its reliability, customer support, and relevant technical features that meet the needs of the NPO's website.
- **Finance Team Approval:** The finance team of Shadow of His Wings will be involved in the decision-making process to confirm that the NPO has the budget to cover these expenses. This may involve approving the initial one-time costs for domain registration as well as the recurring hosting fees.

## Internal Fund Allocation from the NPO's Budget

- **Identify Funding Sources within the NPO:** The NPO may have funds earmarked for technology and operational expenses. This project falls under these categories, so the NPO's finance team will assess how much of the current budget can be allocated for web hosting and domain registration.

- **Create a Dedicated Website Budget Line Item:** For transparency and better financial tracking, a specific budget line item will be created for website expenses. This ensures that funding for the website is separate from other organizational costs, making it easier to manage and report on.
- **Approval Process:** The NPO's management team will go through its internal approval process to ensure that funding for the website aligns with organizational goals. This includes obtaining the necessary authorizations from directors or board members if required.

## Planning for Recurring and Renewal Costs

- **Automatic Renewal Setup:** Since domain registration and hosting are recurring costs, the team will advise setting up an automatic renewal with Absolut Hosting. This prevents the risk of accidental expiration, which could result in website downtime or domain loss.
- **Setting Up Reminders:** The finance team can set reminders for when the yearly domain registration or hosting fees are due. This helps in proactive financial planning and ensures that funds are available when needed.
- **Budget Adjustment for Renewals:** As hosting and domain costs may vary over time, the NPO's finance team will allocate slightly more than the estimated amount each year to accommodate any potential increases.

## Exploring Potential Cost Reductions

- **Long-Term Hosting Plans:** Absolut Hosting may offer discounts for multi-year hosting plans. If the NPO is confident in maintaining the website long-term, they could opt for a 2- or 3-year hosting plan upfront to save on annual fees.
- **Non-Profit Discounts:** Some hosting providers offer discounts or grants for registered non-profits. The project team will inquire with Absolut Hosting to see if Shadow of His Wings qualifies for any discounts, which could reduce the funding needed.
- **Review Optional Features:** The team will ensure that only necessary features are included in the hosting plan. For example, if certain add-ons (like advanced security or analytics) aren't immediately necessary, these can be excluded initially and added later as needed.

## Documentation and Reporting

- **Financial Documentation:** All expenditures related to domain registration and hosting will be documented for transparency. This includes the initial costs, recurring payments, and any additional charges for extra services or upgrades.
- **Regular Financial Reporting:** To maintain accountability, the finance team will generate regular reports on website expenses, helping the NPO's stakeholders see the impact of the website funding and adjust the budget if necessary.

- **Project Team Updates:** The project team will provide updates on any hosting-related issues that could require financial adjustments, such as increased server capacity due to higher website traffic or the need for additional security features.

## Contingency Planning

- **Setting Aside Emergency Funds:** The NPO's budget will include a contingency fund for unexpected website expenses. This could cover costs related to urgent technical support, data recovery, or hosting plan upgrades.
- **Exploring Alternative Funding:** If at any point the NPO faces budget constraints, alternative funding sources, such as donations specifically for website upkeep or external grants, will be explored to ensure continued support for the website.

## Review and Evaluation

- **Quarterly Review of Hosting Performance and Costs:** The NPO's team will review the hosting provider's performance and the website's financial needs quarterly. This helps in assessing whether the current plan still meets the organization's needs and aligns with their budget.
- **Adjustments for Future Budget Cycles:** Based on the quarterly reviews and hosting performance, the finance team will make necessary adjustments in future budgets, ensuring that website costs are accounted for and sustainable over the long term.

By following these detailed steps, the project team and NPO stakeholders can ensure that Shadow of His Wings' website is hosted on a reliable and sustainable platform with Absolut Hosting, supported by transparent financial planning and responsible budget allocation. This approach guarantees that the website remains operational and aligns with the NPO's mission without putting undue strain on its financial resources.

## Costs

### Hosting (AbsolutHosting):

- Domain: R74
- ,NET Core iridium: R160.33(one-time)
- VPN Account (SQL Server): No cost
- Security (SSL Certificate); R194(annually)

QR Code generator: R34(one-time)

### Market day:

- Shirts: R120 + R150(printing)
- Pamphlets R80

## Team members - (ROLES)

**Saneliso Lehlohlala (Team Lead)** – Fullstack /Documentation (ST10031913)

**Liam Cole Abraham (Vice Lead)** – Fullstack /Documentation (ST10144656)

**Hamzah Ballim** – Backend/Documentation (ST10084302)

Saneliso Lehlohlala (Team Lead):

- Fullstack Developer: Will have a solid foundation in both frontend and backend development. The challenge of working on different aspects of a project and have acquired skills in various programming languages and frameworks through self-study and practical projects.
- Documentation: Saneliso recognizes the importance of maintaining clear records and communication channels within the team. They take responsibility for ensuring that project progress, decisions, and requirements are well-documented to facilitate collaboration and understanding among team members.

Liam Cole Abraham (Vice Lead):

- Fullstack Developer: Liam is known for their versatility in both frontend and backend development. They have a knack for problem-solving and have honed their skills through hands-on projects and coursework.
- Documentation: Liam understands the value of clear communication and transparency in team projects. They take an active role in documenting project details and decisions to ensure that everyone is on the same page and that information is readily accessible when needed.

Hamzah Ballim:

- Backend Developer: Hamzah has a passion for backend development and enjoys delving into the logic and architecture of server-side systems. They have dedicated time to learning about databases, APIs, and server technologies to deepen their understanding and expertise.
- Documentation: Hamzah recognizes that thorough documentation is essential for project success. They take initiative in documenting their backend processes and decisions to provide clarity and context for the team's work.

# Ethical and Piracy Concerns

## 1. User Privacy and Data Protection:

- **Ethical Considerations:** Respect user privacy and handle personal data ethically. Get permission before collecting any personal information and ensure that user data is stored securely. (Stanford.edu, 2024)
- **Piracy Measures:** Use data encryption techniques to protect sensitive information. Follow (Newperspectivestudio.co.za, 2023)
- Relevant data protection regulations such as GDPR (General Data Protection Regulation) or CCPA (California Consumer Privacy Act) to ensure compliance.

## 2. Clear Financial Transactions:

**Ethical Considerations:** Making sure to be transparent in financial transactions, especially donations. Clearly communicate how donations are being used and where they're going and provide regular updates on project expenditures.

**Piracy Measures:** Implement secure payment gateways and encryption protocols to ensure safe financial transactions. Regularly take financial records to prevent fraud and ensure accountability. (Councilofnonprofits.org, 2023)

## 3. Fair Use of Resources:

**Ethical Considerations:** Use resources responsibly and ensure that they are allocated efficiently to maximize impact. Avoid overspending and prioritize the needs of the community served by the NPO.

**Piracy Measures:** Try to get proper licenses for any copyrighted materials used on the website, such as images, videos, or written content. Respect intellectual property rights and avoid using unauthorized use or distribution of copyrighted material. (Standford, 2024)

## 4. Accessibility and Inclusivity:

**Ethical Considerations:** Design the website so that it can be accessed by all users, including those with disabilities. Making sure that that content is presented in multiple formats and that the website is compatible with assisting technologies.

**Piracy Measures:** Avoid using pirated software or plugins that may breach the accessibility or security of the website. Use open-source or licensed software that follows standards.

## **5. Avoiding Plagiarism and Misrepresentation:**

**Ethical Considerations:** Giving accurate and truthful information about the NPO's mission is important, projects, and achievements. Avoid plagiarism and making sure that all content is original or properly attributed.

**Piracy Measures:** Educating all the group members about copyright laws and plagiarism prevention. Implement content moderation and review processes to detect and address any instances of misrepresentation or copyright infringement.

## **6. Cybersecurity and Data Breach Prevention:**

**Ethical Considerations:** Protect user data from unauthorized access, breaches, or cyberattacks. Keeping safe of sensitive information to prevent harm to users and maintain trust in the organization.

**Piracy Measures:** Use cybersecurity measures such as firewalls, intrusion detection systems, and regular security audits. Group members learn on cybersecurity best practices to mitigate the risk of data breaches.

## **7. Social Responsibility and Accountability:**

**Ethical Considerations:** Operate with integrity and a commitment to social responsibility. Be clear about the NPO's activities, impact, and governance structure.

**Piracy Measures:** Avoid any illegal activities, including piracy or unauthorized use of copyrighted materials. Hold group members accountable for failing to follow ethical standards and organizational policies.

Building a website for an NPO requires careful consideration of ethical principles and piracy measures to ensure that the organization operates with integrity, transparency, and accountability. By prioritizing user privacy, fair use of resources, accessibility, and cybersecurity, the NPO can build trust with its stakeholders and fulfil its mission effectively while avoiding ethical and legal pitfalls.

# **Project Risks and Mitigations for Building a Website for the Shadow of His Wings Recovery Centre**

## **1. Data Privacy and Security**

**Risk:** Collecting sensitive user information (e.g., personal details for donations or contact forms) could lead to privacy breaches or unauthorized data access.  
(Softwareag.com, 2024)

**Mitigation:**

- Implement SSL encryption to secure data transmission.
- Ensure compliance with regulations like GDPR or POPIA.
- Regularly update software to patch vulnerabilities and conduct penetration testing.
- Use secure storage solutions for personal and financial data.

## 2. Lack of Technical Expertise

**Risk:** Limited knowledge of web development tools, frameworks, or best practices could result in delays or a substandard website.

**Mitigation:**

- Ask assistance from experienced web developers or partner with professional volunteers.
- Provide training to team members on relevant tools and technologies.
- Utilize open-source platforms like WordPress for user-friendly development.

## 3. Budget Constraints

**Risk:** Insufficient funds for web hosting, domain registration, or professional services could affect the website's quality or delay the launch.

**Mitigation:**

- Apply for grants or sponsorships from relevant organizations.
- Use affordable or free hosting and domain services initially.
- Prioritize essential features and expand the website as funding increases.
- Use open-source software to avoid licensing costs.

## 4. Content Mismanagement

**Risk:** Outdated, inaccurate, or plagiarized content can harm the NPO's reputation and cause legal issues.

**Mitigation:**

- Regularly review and update content.
- Appoint a content manager to oversee quality and accuracy.
- Use original content or acquire proper licenses for images and text.

## 5. Accessibility Challenges

**Risk:** The website may not be accessible to users with disabilities or those using older devices, limiting the audience reach.

**Mitigation:**

- Design the website following Web Content Accessibility Guidelines (WCAG).
- Test the website on various devices and browsers.
- Incorporate assistive technologies like screen readers and captioning for content.

## 6. Stakeholder Resistance or Misalignment

**Risk:** Differing opinions among stakeholders could delay decision-making or cause conflicts about the website's direction.

**Mitigation:**

- Conduct regular stakeholder meetings to align goals and expectations.
- Develop a clear project scope and obtain approvals at each phase.
- Involve key stakeholders in major decisions to encourage collaboration.

## 7. Delays in Development Timeline

**Risk:** Unexpected challenges such as technical issues or resource unavailability can delay the project.

**Mitigation:**

- Create a realistic project timeline with contingency buffers.
- Regularly track progress using tools like Teamfu for task management.
- Assign responsibilities clearly among team members and ensure accountability.

## 8. Hosting and Server Downtime

**Risk:** Inadequate hosting solutions could result in frequent downtime or slow website performance.

**Mitigation:**

- Choose a reliable hosting provider with high uptime guarantees.
- Monitor website performance and address issues promptly.
- Use Content Delivery Networks (CDNs) to enhance load times and reliability.

## 9. Cybersecurity Threats

**Risk:** Cyberattacks such as hacking, malware, or phishing could compromise the website's functionality and user data.

**Mitigation:**

- Use firewalls, intrusion detection systems, and regular security audits.
- Train team members on cybersecurity best practices.
- Implement two-factor authentication for administrator accounts.

## 10. Regulatory Compliance Risks

**Risk:** Failure to comply with legal requirements regarding user data or nonprofit operations could lead to penalties or legal action.

**Mitigation:**

- Consult legal advisors to understand and adhere to regulations.
- Include clear terms of service and privacy policy on the website.
- Regularly review compliance as laws and regulations evolve.

## 11. Lack of User Engagement

**Risk:** Poor design, slow loading times, or unappealing content could result in low visitor engagement.

**Mitigation:**

- Design an intuitive, user-friendly interface with clear navigation.
- Optimize the website for speed and mobile devices.
- Use engaging content such as success stories, testimonials, and videos.

## 12. Volunteer and Team Burnout

**Risk:** Overloading volunteers or team members with responsibilities could lead to burnout, reducing productivity.

**Mitigation:**

- Distribute tasks evenly among team members.
- Recognize and reward contributions to keep morale high.
- Use collaboration tools like GitHub and CircleCI to streamline workflows.

## Definition of Done

Team: Jisedai

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Product: Shadow of Wings Recovery Centre

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Before we Processed with the application, we, as a team, we agree that it will be refined until:

- ✓ The code is completed and meets the requirements of the development team.
- ✓ The code is refactored.
- ✓ We have met the Acceptance criteria.
- ✓ The code is checked in to a repository.
- ✓ Reviewed by Peers.
- ✓ The code is merged and tagged.
- ✓ Unit testing is written.
- ✓ Unit testing is cleared and green.
- ✓ Deployed to the development environment.

### Functional Criteria

| **Website Features:**

- a. All core functionalities (e.g., contact forms, donation page, user registration) are developed, functional, and integrated.
  - b. The navigation is intuitive, and all internal and external links work correctly.
- | **Content Integration:**
    - a. All required content (text, images, videos) is uploaded and formatted.
    - b. The content aligns with the NPO's branding and messaging guidelines.
  - | **Multi-Browser Compatibility:**
    - a. The website functions correctly across modern browsers (Chrome, Firefox, Edge, Safari).

## Non-Functional Criteria

- | **Performance:**
  - a. The website loads within 2 seconds for standard connections.
  - b. Images and multimedia are optimized without quality degradation.
- | **Mobile Responsiveness:**
  - a. The website layout adapts seamlessly to different screen sizes (desktop, tablet, mobile).
- | **Security:**
  - a. HTTPS is enabled, and SSL certificates are installed.
  - b. All forms are secured against SQL injection and Cross-Site Scripting (XSS).

## Testing Criteria

- | **Unit Testing:**
  - a. All key components have been tested for expected behaviors.
- | **Integration Testing:**
  - a. All third-party tools (e.g., payment gateways, email systems) are integrated and tested.
- | **User Acceptance Testing (UAT):**
  - a. The NPO stakeholders have tested the website and provided formal approval.
- | **Bug Fixing:**
  - a. All critical and high-priority bugs are resolved.
  - b. No known critical defects remain unresolved.

## Documentation Criteria

- | **Technical Documentation:**
  - a. The website architecture, database design, and APIs are documented.

b. Instructions for maintenance and updates are provided.

1) **User Documentation:**

a. Clear and concise user guides are available for the NPO staff.

## Deployment Criteria

✓ **Hosting and Domain:**

- a. The website is hosted on Absolut Hosting, with the domain registered and operational.
- b. The live website is accessible at the designated URL.

1) **Backup System:**

a. A backup and recovery system is implemented and tested.

1) **Monitoring Tools:**

a. Tools for performance and uptime monitoring (e.g., Google Analytics, server logs) are integrated.

## Signatures :

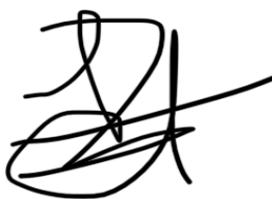
As a team we sign this document as proof that we have met the above criteria needed:



SANELISO LEHLOHLA:



LIAM ABRAHAM:



HAMZAH BALLIM:

# Definition of Ready

Team: Jisedai

Product: WIL Project (Shadow of his wings recovery centre)

---

Before we Processed with the application, we, as a team, we agree that it will be refined until:

## Independent

- App can be developed **Independent** from other Apps.
- If there are **dependencies**, they were refined and separated.
- **One team** can work on it with minimal or no dependencies on other teams.
- **One team member** can complete the work with minimal or no dependencies on others.

## Negotiable

- The Application was **discussed** with the team, and they understand what to do.
- The Acceptance criteria is defined.
- The team has what they need to **start working** on the Application but some
- All variants are defined.

## Value

- The **priority** in the building the application is clear.
- The team understands what is need and expected by the user
- The **stakeholders** (would) agree with the **Acceptance criteria and value**.
- Hypothesis/experiment, expected outcome, metrics and measurement period is defined.
- Return of Investment: Stakeholders and PO know how much they will obtain with this Application.

## Estimated

- Planning regular meeting session with the team.
- Estimated in Application size.
- All applications have similar size.

## Small

- It can be done in One Sprint.
- Refined to obtain 80% of its value using 20% of its effort: The minimum size that can reach value was achieved.

## Testable

- The team understands how the Application can be tested.
- Acceptance tests and examples are defined.
- Scenario-oriented Acceptance criteria Given-When-Then.

### **Signatures:**



**SANELISO LEHLOHLA:**



**LIAM ABRAHAM:**



**HAMZAH BALLIM:**

### **Work Agreement**

Between Jisedai (hereinafter referred to as "Developer")  
Shadow of His Wings (hereinafter referred to as "NPO")

#### **Scope of Work:**

Developer agrees to design, develop, and deploy a website and a mobile application for NPO as per the specifications provided by NPO.

The website and mobile application will include features such as (Website; Information and contact, App; Scheduling, reminders, support, overall; Comprehensive support for recovery).

Developer will provide regular updates and progress reports to NPO throughout the development process.

#### **Payment Terms:**

The Developer has agreed to work for the NPO, free of charge, in order to gain experience, and complete a module as part of their degree.

**Intellectual Property Rights:**

Upon full payment of all fees, all rights to the website and mobile application, including but not limited to code, design, and content, shall transfer to NPO.

Developer retains the right to showcase the project in their portfolio unless otherwise agreed upon in writing by both parties.

**Confidentiality:**

Both parties agree to keep all project-related information and materials confidential.  
Termination:

Either party may terminate this agreement in writing if the other party breaches any material term of this agreement.

Governing Law:

This agreement shall be governed by and construed in accordance with the laws of South Africa.

Signatures:

In witness whereof, the parties hereto have executed this agreement as of the date first written above.

**Signatures:**



**SANELISO LEHLOHLA:**



**LIAM ABRAHAM:**



**HAMZAH BALLIM:**

## PROJECT CHARTER

### **Project Name:**

WIL Group 19 (Shadow of His Wings Recovery Centre Website Development)

### **Project Group:**

Jisedai (WIL Group 19)

### **Project Start Date:**

September 30, 2024

### **Project Completion Date:**

November 13, 2024

### **Project Overview**

The Shadow of His Wings Recovery Centre offers comprehensive addiction recovery services. To enhance its outreach, improve engagement, and streamline administrative tasks, the Centre has tasked Jisedai with designing and developing a user-friendly, modern, and responsive website. This platform will serve as an essential tool for providing accessible information, fostering community engagement, encouraging donations, and managing administrative processes.

The website will cater to both patients seeking recovery support and the broader community, including donors and volunteers. Features like patient registration, event management, donation systems, and educational resources will ensure the Centre's operations run smoothly and its services reach those in need.

### **Project Objectives**

- Improved Accessibility:** Build a fully responsive, mobile-friendly website that adapts to users across desktops, tablets, and smartphones.
- Increased Awareness & Engagement:** Highlight the Centre's mission, services, and values, while also encouraging community involvement, support, and donations.

3. **Resource Sharing:** Develop a comprehensive resource library for addiction recovery, wellness, and mental health education.
4. **Enhanced User Interaction & Support:** Integrate online community features that allow patients and their families to connect, share experiences, and support each other.
5. **Streamlined Administration:** Create a system for managing users, donations, events, and content, allowing staff to focus more on patient care and outreach.

## Project Scope

This project will include the development of the following website features:

- **Homepage:** A welcoming page introducing the Centre's mission, vision, and available services.
- **User Registration & Login System:** A secure system for both patients and community members to create accounts and access resources.
- **Patient & Community Profiles:** Personal profiles for patients and community members, tracking recovery progress and providing access to individualized resources.
- **Resource Library:** An online collection of educational materials on addiction recovery and mental health.
- **Event Management System:** Functionality to schedule and manage events like therapy sessions, workshops, and community outreach activities.
- **Donation System:** A secure, easy-to-use platform for making online donations.
- **Testimonial Sharing:** A feature for patients and community members to share their recovery stories and read others' testimonials.
- **Administrative Dashboard:** A backend panel for staff to manage content, track donations, organize events, and update resources.
- **Contact and Emergency Support:** A contact page for urgent inquiries or requests for immediate support.
- **Multilingual Support:** The ability to cater to a broader audience with multiple language options.

## Deliverables

- **Resource Library:** A fully integrated resource library accessible to all users.
- **Event Scheduling & Management:** A system to manage and update upcoming events, including group therapy sessions, support group meetings, and fundraisers.
- **Donation System:** A platform for secure donation processing, with integration to track and display total donations and funding goals.

- Community Support Forum:** An interactive, moderated space for patients to interact, support each other, and share recovery experiences.
- Administrative Dashboard:** A user-friendly content management system to handle all administrative needs, from content updates to tracking donations.
- Responsive Design:** The website must be fully responsive and accessible on all devices and screen sizes.
- Mobile Compatibility:** Ensuring seamless user experience on smartphones and tablets for on-the-go access.

## Key Milestones and Timeline

Milestone	Start Date	End Date	Description
Project Planning & Requirements	Sep 30, 2024	Oct 7, 2024	Defining the project scope, gathering requirements, and finalizing website features and functionality.
Design Phase	Oct 8, 2024	Oct 15, 2024	Designing wireframes and mockups for the website and receiving stakeholder feedback.
Development Phase 1	Oct 16, 2024	Oct 25, 2024	Building core functionality such as user registration, profile management, and the event system.
Development Phase 2	Oct 26, 2024	Nov 2, 2024	Integration of resource library, donation systems, and testimonials section.
Development Phase 3	Nov 3, 2024	Nov 7, 2024	Adding community support features, administrative dashboard, and CMS tools.
Testing Phase	Nov 8, 2024	Nov 10, 2024	Conducting extensive testing for usability, performance, and security.
Deployment & Staff Training	Nov 11, 2024	Nov 13, 2024	Deploying the website and providing staff training on website management and content updates.

## Roles and Responsibilities

- Project Manager:** Oversees project timelines, resource allocation, and client communication. Ensures project goals are met within the scope and timeline.
- Lead Developer:** Develops back-end functionalities and database management. Manages code repositories and integrations.
- Front-End Developer:** Responsible for website design and ensuring a responsive user interface across all devices.
- Content Manager:** Assists with content population, ensuring educational and support resources are accurate and up to date.

- **Quality Assurance Specialist:** Conducts testing on website functionalities, usability, and security.
- **Stakeholders:** Shadow of His Wings Recovery Centre's staff, including management and medical professionals, who will provide input on functionality and ensure the website meets the Centre's needs.

## Scrum Board and Project Management Tools

### **Teamfu (Scrum Board Management):**

To ensure the agile process is adhered to, we will use Teamfu as our Scrum board tool. This tool will help us manage tasks, user stories, sprints, and backlogs efficiently. Each sprint will have tasks broken down into user stories with clear priorities and timelines.

### **GitHub & Git:**

GitHub will be the main repository for source code management. Git will be used for version control, ensuring that multiple developers can collaborate seamlessly. Regular commits will be made to maintain code integrity and pull requests will be reviewed to maintain quality standards.

### **CircleCI:**

CircleCI will be used to automate the build, test, and deployment processes. It will ensure that the codebase is continuously integrated and that the website's deployment process is smooth. CircleCI will help us catch any integration issues early in the development cycle.

## **Risk Management**

### **1. Technical Risks:**

- **Code Integration Issues:** With multiple developers working on different parts of the site, integration conflicts could arise. To mitigate this, we will use **Git** for version control and have regular code reviews. Automated build and test processes through **CircleCI** will catch integration issues early.
- **Security Risks:** Ensuring the security of patient data is paramount. We will implement SSL encryption for secure data transmission, and strong password protocols for login systems. Regular security audits and testing will be performed to ensure compliance with data privacy laws (such as GDPR).

### **2. Resource Availability:**

- **Staff Availability:** If key developers or designers become unavailable, project delays may occur. To mitigate this, we will maintain a buffer in timelines and cross-train team members in critical tasks to ensure continuity.

### 3. Budget Constraints:

- **Unforeseen Costs:** Hosting, domain registration, and ongoing maintenance costs could exceed the allocated budget. To mitigate this risk, we will regularly track expenses against the budget. We will also look for affordable, yet reliable hosting services, like Absolut Hosting, and negotiate long-term contracts for better rates.

### 4. Scope Creep:

- **Uncontrolled Changes:** New feature requests could emerge during the project, leading to delays. To prevent this, we will ensure all features are agreed upon during the requirements phase and that any new additions are handled through formal change requests.

### 5. Testing Delays:

- **Inadequate Testing:** Insufficient testing could lead to bugs in the final product. We will mitigate this risk by allocating enough time for each testing phase and ensuring that the QA Specialist performs detailed testing, using automated tests when possible.

## Assumptions, Dependencies, and Constraints for NPO Website Development

### Assumptions:

**Stakeholder Engagement:** It is assumed that stakeholders, including NPO staff, volunteers, and beneficiaries, will actively participate in the website development process by providing feedback, content, and other necessary inputs.

**Resource Availability:** It is assumed that sufficient resources, including funding, human resources, and technology infrastructure, will be available to support the website development project.

**Technical Expertise:** It is assumed that the project team possesses the necessary technical expertise and skills required for website development, including web design, development, content creation, and digital marketing.

**Regulatory Compliance:** It is assumed that the website development project will comply with relevant regulations and legal requirements, including data protection laws, copyright laws, accessibility standards, and any other applicable regulations.

**Timely Completion:** It is assumed that the project will be completed within the agreed-upon timeline, taking into account any potential delays or obstacles that may arise during the development process.

**Dependencies:**

**Content Creation:** The website development process is dependent on the timely creation of high-quality content, including text, images, videos, and other multimedia elements, which may require coordination with internal stakeholders or external content creators.

**Graphic Design:** The design and layout of the website are dependent on the availability of graphic design resources, including graphic designers and design software, to create visually appealing and user-friendly interfaces.

**Technology Infrastructure:** The website development process is dependent on the availability and functionality of technology infrastructure, including web hosting services, domain registration, and internet connectivity, to support website hosting and maintenance.

**Testing and Quality Assurance:** The website development process is dependent on thorough testing and quality assurance procedures to identify and address any bugs, errors, or usability issues before the website is launched to ensure a smooth user experience.

**User Feedback:** The website development process may depend on ongoing user feedback and iteration to improve website functionality, usability, and content relevance based on user preferences and behaviour.

### **Constraints:**

**Budget Constraints:** The project may be constrained by budget limitations, requiring careful resource allocation and prioritization of website features and functionalities to stay within budget constraints.

**Time Constraints:** The project may be constrained by time limitations, requiring efficient project management and task prioritization to ensure timely completion of project milestones and deliverables.

**Technical Constraints:** The project may be constrained by technical limitations, including compatibility issues, platform constraints, or limitations of available technology solutions, requiring creative problem-solving and adaptation of technical solutions.

**Resource Constraints:** The project may be constrained by resource limitations, including human resources, expertise, or access to external vendors or partners, requiring efficient resource management and coordination to overcome resource constraints.

**Scope Constraints:** The project may be constrained by scope limitations, requiring clear definition and prioritization of project scope to ensure that key objectives and deliverables are met within the available resources and constraints.

These assumptions, dependencies, and constraints should be considered and managed throughout the website development project to mitigate risks and ensure successful project outcomes.

(itToolkit.com, 2021)

# NON-FUNCTIONAL REQUIREMENTS

## Group 19

### WIL

#### **Security**

##### Overview:

Security is critical for an NPO website to protect sensitive data and ensure trust among users, donors, and volunteers. It encompasses measures to prevent unauthorized access, data breaches, and other malicious activities.

##### Requirements:

**Data Encryption:** All data transmitted between the client and server should be encrypted using SSL/TLS protocols to prevent interception by unauthorized parties.

**Authentication and Authorization:** Implement robust user authentication mechanisms, including multi-factor authentication (MFA) for sensitive operations. Define clear user roles and permissions to control access to different sections of the website.

**Data Protection:** Personal and financial data should be stored securely using encryption methods. Regularly update and patch all software to mitigate vulnerabilities.

**Regular Security Audits:** Conduct periodic security assessments and penetration testing to identify and fix security vulnerabilities.

**Incident Response Plan:** Develop and maintain an incident response plan to quickly address any security breaches or incidents.

**Compliance:** Ensure compliance with relevant security standards and regulations, such as GDPR, CCPA, and PCI DSS for handling payment information.

#### **Usability**

##### Overview:

Usability focuses on the ease with which users can navigate and interact with the website. An NPO website should be user-friendly to ensure that visitors can find information and complete tasks efficiently.

##### Requirements:

**Intuitive Navigation:** Design a clear and intuitive navigation structure that allows users to easily find information and complete tasks with minimal effort.

**Accessible Design:** Ensure the website complies with WCAG (Web Content Accessibility Guidelines) to make it accessible to users with disabilities.

**Responsive Design:** Implement a responsive design that provides an optimal viewing experience across a wide range of devices, including desktops, tablets, and smartphones.

**Consistent User Interface:** Maintain a consistent look and feel across all pages and sections of the website to enhance user familiarity and ease of use.

**Feedback Mechanisms:** Include features such as tooltips, error messages, and confirmations to guide users and provide feedback on their actions.

**User Testing:** Conduct usability testing with a diverse group of users to gather feedback and make iterative improvements to the website.

## Maintainability

### Overview:

Maintainability refers to the ease with which the website can be updated, modified, and extended over time. This ensures the website remains functional and relevant as needs evolve.

### Requirements:

**Modular Architecture:** Use a modular and component-based architecture to allow for easier updates and extensions of individual components without affecting the entire system.

**Code Quality:** Follow best practices in coding standards, including proper documentation, code comments, and consistent naming conventions to enhance readability and maintainability.

**Version Control:** Implement version control systems such as Git to manage changes to the website's codebase and facilitate collaboration among developers.

**Automated Testing:** Integrate automated testing frameworks to quickly identify and fix bugs during development and after deployment.

**Documentation:** Provide comprehensive documentation for the website's architecture, design, and codebase to assist current and future developers in understanding and maintaining the system.

**Regular Maintenance Schedule:** Establish a regular maintenance schedule for updating software dependencies, applying security patches, and performing system health checks.

## Reliability

### Overview:

Reliability ensures that the website operates correctly and consistently under expected conditions, providing a stable and dependable service to its users.

#### **Requirements:**

**Redundancy:** Implement redundant systems for critical components such as databases and servers to ensure continuous operation in case of hardware or software failure.

**Backup and Recovery:** Establish regular backup procedures and a disaster recovery plan to restore data and functionality quickly in case of a failure. **Monitoring and Alerts:** Deploy monitoring tools to track system performance and uptime and set up alerts for any unusual activity or potential issues.

**Error Handling:** Develop robust error handling mechanisms to gracefully manage and log errors without disrupting the user experience.

**Load Testing:** Perform load testing to ensure the website can handle expected traffic levels without degradation in performance or reliability.

**Service Level Agreements (SLAs):** Define and adhere to SLAs for uptime and response times to ensure a reliable user experience.

## **Scalability**

#### **Overview:**

Scalability is the capability of the website to handle increased load, whether due to a rise in user traffic, data volume, or functionality requirements, without compromising performance.

#### **Requirements:**

**Scalable Architecture:** Design the website with a scalable architecture, such as microservices or cloud-based solutions, to allow for easy scaling of individual components.

**Load Balancing:** Implement load balancers to distribute incoming traffic evenly across multiple servers, enhancing performance and reliability during high traffic periods.

**Database Scaling:** Use scalable database solutions that support sharding, replication, and clustering to handle increased data volume and query load.

**Elastic Resources:** Utilize cloud services that offer elastic resource allocation, allowing the website to scale resources up or down based on demand.

**Performance Monitoring:** Continuously monitor performance metrics to identify and address bottlenecks that could impede scalability.

**Efficient Code Practices:** Write efficient, optimized code that can handle increased load without significant performance degradation.

## Interoperability

### Overview:

Interoperability refers to the ability of the website to work seamlessly with other systems and platforms, facilitating data exchange and integration.

### Requirements:

**API Integration:** Develop and expose RESTful or GraphQL APIs to enable integration with external systems and third-party services, such as payment gateways, CRM systems, and social media platforms.

**Standard Protocols:** Use standard communication protocols (e.g., HTTP, HTTPS, FTP) and data formats (e.g., JSON, XML) to ensure compatibility with other systems.

**Data Exchange:** Implement mechanisms for secure and efficient data exchange, including data import/export functionalities and synchronization with external databases.

**Third-Party Services:** Ensure compatibility with common third-party services such as Google Analytics, social media APIs, and email marketing platforms.

**Modular Integration:** Design the website's architecture to support easy addition or replacement of third-party modules or plugins without significant rework.

**Testing Interoperability:** Regularly test integrations with other systems to ensure they function correctly and efficiently after updates or changes.

## Localization

### Overview:

Localization ensures that the website can serve users from different regions and cultures by supporting multiple languages and adapting to local preferences.

### Requirements:

**Multilingual Support:** Implement functionality to display content in multiple languages, including right-to-left (RTL) language support. Allow users to switch languages easily.

**Content Translation:** Provide mechanisms for translating content, either through integration with translation services or by enabling manual translation.

**Date and Time Formats:** Adapt date, time, and number formats to match local conventions and preferences for different regions.

**Currency and Payment Methods:** Support multiple currencies and local payment methods to accommodate international donors and users.

**Cultural Sensitivity:** Ensure that content is culturally appropriate and sensitive to the norms and values of different regions.

**Regional Settings:** Allow customization of regional settings such as time zones, address formats, and phone number formats to match local standards.

**Legal Compliance:** Ensure compliance with local laws and regulations, including data protection and privacy laws specific to different regions. These detailed non-functional requirements ensure the NPO website is secure, user-friendly, maintainable, reliable, scalable, interoperable, and localized, providing a robust foundation for serving the organization's goals and its stakeholders' needs

## **Software Engineering**

### **Software Requirements Specification**

#### **(SRS) Document**

**< WIL PROJECT >**

**<7 March 2024>**

**<Version>**

**<By: Jisedai>**

#### **Revision**

Version	Primary Author(s)	Description of Version	Date Completed
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### Review & Approval

Approving Party	Version Approved	Signature	Date

Reviewer	Version Reviewed	Signature	Date

### Purpose

This project's main objective is to create a comprehensive website for the Shadow of His Wings Recovery Centre with the intention of building a solid online presence and improving accessibility for a wide range of users. As an educational tool, the website will give visitors insightful information about the goals, offerings, and activities of the recovery centre. The goal is to promote support via features like donation functionality, simplify smooth transactions, and increase engagement through a simple user experience. This project is in line with the larger corporate goal of raising awareness of the rehabilitation centre's mission and enhancing its community effect.

**Goal:** Develop a user-friendly website for the Shadow of His Wings Recovery Centre.

**Objectives:** Ensure accessibility, provide relevant information, and facilitate online engagement.

**1.2 Document Conventions:** Standard typographical conventions will be followed; no specific abbreviations or font changes.

**1.3 Intended Audience:**

**1.4 Scope:** Align software goals with the overall business goal of promoting the recovery center. Benefits: Increased online presence, improved communication, and enhanced support for the recovery center's mission.

### **1.5 References:**

SRS template document

## **2. General Description:**

**2.1 Product Perspective:** The website is a standalone project initiated to meet the online presence needs of the recovery centre.

**2.2 Product Features:** Information pages, contact forms, donation functionality, events calendar.

**2.3 User Class and Characteristics:** Visitors seeking information, potential donors, and recovery center staff for content management.

**2.4 Operating Environment:** Web application hosted on a reliable server with compatibility across major browsers.

**2.5 Constraints:** Limited budget and time constraints for development and maintenance.

**2.6 Assumptions and Dependencies:** Assuming availability of necessary content from the recovery center. Dependency on external APIs for certain features.

## **3. System Requirements**

### **3.1 Functional Requirements:**

- Design requirements: Intuitive navigation, mobile responsiveness.
- Graphics requirements: Optimized images for quick page loading.
- Operating system requirements: Compatible with major browsers (Chrome, Firefox, Safari).
- Constraints: Budget constraints may limit the inclusion of advanced features

### **4. User Interfaces:**

- Sample Screen Layout: Clean and intuitive design with a prominent header for easy navigation.
- Buttons and Functions: Clear buttons for key actions like submitting forms and donating.
- Messages: Informative messages for successful actions and guidance for errors.
- Style Guides: Utilize a modern, calming colour palette and readable fonts for a user-friendly experience.

#### **4.2 Hardware Interfaces:**

- Supported Devices: Compatible with common devices like desktops, laptops, tablets, and smartphones.
- Network Requirements: Stable internet connection for seamless user experience.
- Communication Protocols: Utilize HTTPS for secure data transmission.

#### **4.3 Communications Interfaces:**

- Communication Standards: Follow industry-standard communication protocols such as RESTful APIs for seamless integration.

#### **4.4 Software Interfaces:**

- Frontend Framework: Use a responsive frontend framework for consistent user experience across devices.
- Backend Framework: Employ a robust backend framework to handle data processing and server-side logic.
- Database Management System: Utilize a relational database system for efficient data storage and retrieval.
- Libraries: Employ relevant libraries for enhanced functionality, such as payment processing and form validation.

### **5. Non-Functional Requirements:**

#### **5.1 Performance Requirements:**

- Pages should load within 3 seconds for optimal user experience.
- Scalability to handle a potential increase in traffic during events.

#### **5.2 Safety Requirements:**

- Implement user authentication to ensure sensitive information is protected.
- Regular data backups to prevent loss.

#### **5.3 Security Requirements:**

- Follow the GDPR and other privacy regulations.
- Encrypt sensitive user data during transmission.

#### **5.4 Software Quality Attributes:**

- Maintainability: Code should be well-documented for future updates.
- Usability: Conduct usability testing to ensure an intuitive interface.

#### **5.5 Other Requirements:**

- Legal Requirements: Comply with local laws regarding online donations and data protection.
- Resource Utilizations: Optimize code for efficient resource utilization.
- Future Updates: Design with modularity to facilitate easy updates and enhancements.

## DevOps

At Jisedai, we're dedicated to utilizing the latest DevOps technologies to guarantee a smooth, effective, and superior development procedure for our project. Our team will use GitHub and CircleCI to improve teamwork, expedite processes, and create a solid and user-friendly website for the NGO/NPO that focuses on drug rehabilitation and recovery. (Ironhack.com, 2023)

### **Introduction to DevOps in the Project**

The "Shadow of His Wings" recovery NPO center is committed to supporting individuals in need, and a robust, accessible website is essential for providing information, resources, and outreach. Jisedai, a software company specializing in digital solutions, took on this project to create a reliable and user-friendly site. DevOps practices were central to ensuring smooth development, frequent updates, and efficient collaboration across teams. (Ironhack.com, 2023)

This document outlines the DevOps tools and practices used by Jisedai, including:

- **TeamFu** for project management and streamlined team communication
- **Git and GitHub** for version control and collaborative development
- **CircleCI** for Continuous Integration and Continuous Deployment (CI/CD)

### **TeamFu: Project Management and Collaboration**

#### **Why TeamFu?**

For this project, Jisedai chose TeamFu as the primary project management tool to facilitate agile project planning, monitor project milestones, and maintain efficient communication among team members.

#### **Features and Benefits in the Project:**

- **Agile Methodology Support:** TeamFu's agile-friendly features enabled Jisedai to plan sprints, manage backlogs, and prioritize work based on deadlines and dependencies.
- **Task Tracking and Assignment:** Each task was assigned to a team member, with real-time tracking to ensure all activities aligned with project milestones.

- **Centralized Collaboration:** With TeamFu, all resources, discussions, and documentation were centralized, making it easy for team members to access project details, communicate updates, and share feedback.

**How TeamFu Improved Workflow:** TeamFu allowed Jisedai to maintain an organized view of the project's progress, reducing bottlenecks and ensuring clear communication with stakeholders at Shadow of His Wings. Through weekly check-ins and clear task assignments, TeamFu facilitated a smooth project lifecycle from initial requirements to final deployment

The screenshot shows the 'Project Planning' section of the TeamFu interface. The sidebar lists projects like 'WIL Group 19' and 'Example Project'. The main area displays three tasks under the '#Project Planning' board:

- #13-Devops: Due 13 Nov 2024 (past due), status 100%, assigned to 3 people, marked as Done.
- #11-Plan Design: Due 01 Oct 2024 (past due), status 100%, assigned to 3 people, marked as Done.
- #10-Meet Will NGO: Due 30 Sep 2024 (past due), status 100%, assigned to 3 people, marked as Done.

The screenshot shows the 'Tests' section of the TeamFu interface. The sidebar lists projects like 'WIL Group 19' and 'Example Project'. The main area displays one task under the '#Tests' board:

- #9-Test Project: Due 09 Nov 2024 (past due), status 100%, assigned to 2 people, marked as Done.

The screenshot shows the 'Create Presentation' section of the TeamFu interface. The sidebar lists projects like 'WIL Group 19' and 'Example Project'. The main area displays one task under the '#Create Presentation' board:

- #12-Presentation DESIGN: Due 07 Nov 2024 (past due), status 100%, assigned to 1 person, marked as Done.

The screenshot shows the 'Deployment' section of the WIL Group 19 project portfolio. The sidebar includes options like Project Planning, Tests, Create Presentation, Deployment (which is selected), Web Development, Documentation, team\_wiki, and Example Project. The main area displays tasks under the 'Deployment' category:

- #5 Finding Domain (Due: 11 Nov 2024, post due, 100%, Done)
- #6 Deploy Website (Due: 16 Nov 2024, in 7 days, 100%, Done)

The screenshot shows the 'Web Development' section of the WIL Group 19 project portfolio. The sidebar includes options like Project Planning, Tests, Create Presentation, Deployment, Web Development (selected), Documentation, team\_wiki, and Example Project. The main area displays tasks under the 'Web Development' category:

- #3-Fix errors (Due: 26 Sep 2024, post due, 100%, Done)
- #4-Add Links and Icon links (Due: 07 Oct 2024, post due, 100%, Done)
- #7 Backend Designs (Due: 04 Oct 2024, post due, 100%, Done)
- #8 Backend Improvements (Due: 10 Aug 2024, post due, 100%, Done)

The screenshot shows the 'Documentation' section of the WIL Group 19 project portfolio. The sidebar includes options like Project Planning, Tests, Create Presentation, Deployment, Web Development, Documentation (selected), team\_wiki, and Example Project. The main area displays tasks under the 'Documentation' category:

- #2-Finish Adding Links (Due: 26 Oct 2024, post due, 100%, Done)
- #1-Review Documentations (Due: 23 Oct 2024, post due, 100%, Done)

(TeamFu, 2024)

## Git and GitHub: Version Control and Collaborative Development

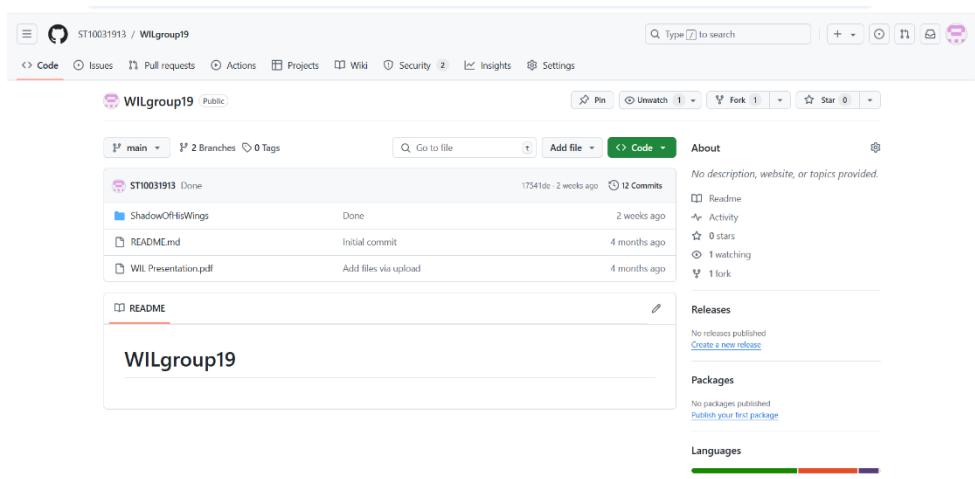
### Why Git and GitHub?

Jisedai utilized Git and GitHub as essential tools for managing the source code, tracking changes, and maintaining a collaborative development environment.

## Key Practices in Version Control:

- **Branching Strategy:** Jisedai followed a structured branching approach, using separate branches for main, development, and specific feature branches. This setup allowed team members to work independently on new features or fixes without impacting the main codebase.
- **Frequent Commits and Clear Messaging:** Developers made frequent commits with descriptive messages, which made it easy to track project progress and troubleshoot issues.
- **Pull Requests and Code Reviews:** Pull requests in GitHub were used to manage and review code before merging, which ensured adherence to quality standards and minimized potential issues.

**Benefits of Git and GitHub for the Project:** By using Git and GitHub, Jisedai maintained an organized and traceable code history, reducing conflicts and enabling simultaneous development of different website features. Code reviews and a structured branching strategy ensured that only verified code made it into the main branch, enhancing overall project stability.



Commits

main

Commits on Nov 8, 2024

- Done ST10031913 committed 2 weeks ago 17541de
- Done ST10031913 committed 2 weeks ago d1b49e4
- Done ST10031913 committed 2 weeks ago 41fb840
- Done ST10031913 committed 2 weeks ago 3c82b8d
- Done ST10031913 committed 2 weeks ago 55322ee

Commits on Oct 24, 2024

- Done ST10031913 committed last month da45987

circleci-project-setup

2 Branches 0 Tags

This branch is 14 commits ahead of ST10031913:circleci-project-setup.

liam-007 Merge branch 'ST10031913:circleci-project-setup' into circleci-project... 17624a7 · 9 minutes ago 16 Commits

.circleci CircleCI Commit 12 minutes ago

ShadowOfHisWings update 1 hour ago

README.md Initial commit 4 months ago

WIL Presentation.pdf Add files via upload 4 months ago

**README**

WILgroup19

**Readme**  
Activity  
0 stars  
0 watching  
0 forks

**Releases**  
No releases published  
Create a new release

**Packages**  
No packages published  
Publish your first package

**Languages**  
C# 43.2% HTML 35.1%  
CSS 19.2% JavaScript 15%

**Suggested workflows**  
Based on your tech stack

(Github 2024)

## CircleCI: Continuous Integration and Continuous Deployment (CI/CD)

### Why CircleCI?

Jisedai selected CircleCI for its ability to automate build, test, and deployment processes, significantly speeding up the delivery cycle and reducing manual errors. (CircleCI.com, 2024)

### CI/CD Workflow in CircleCI:

- Automated Builds:** Every time code was pushed to GitHub, CircleCI automatically built the website to verify that the new code integrated smoothly.
- Automated Testing:** CircleCI ran automated tests to catch bugs early and ensure adherence to the coding standards required by the project.

**3. Deployment to Staging and Production:** Upon successful testing, CircleCI deployed the code to a staging environment, where it could be reviewed by both Jisedai and the Shadow of His Wings stakeholders before final production deployment.

**Pipeline Configuration:** The CircleCI configuration file (.circleci/config.yml) defined the steps for each CI/CD stage:

- **Build:** Set up the environment, install dependencies, and compile the code.
- **Test:** Run unit and integration tests to validate code integrity.
- **Deploy:** Deploy to the staging environment for review, with an option to push to production upon approval.

### Benefits of CI/CD in the Project:

- **Faster Iteration Cycles:** CircleCI allowed Jisedai to quickly deploy updates and new features to the website, enabling Shadow of His Wings to receive frequent enhancements.
- **Reliability and Stability:** The automated testing process ensured that only quality-tested code was deployed to the production environment, reducing the likelihood of issues affecting end-users.
- **Improved Developer Productivity:** With automated builds and tests, developers could focus more on feature development, as CircleCI handled much of the repetitive work.

Project	Status	Workflow	Trigger Event	Start	Duration	Actions
sohw 3	✓ Success	say-hello-workflow	circleci-project-setup 17624a7 Merge branch 'ST10031913:circleci-project-setup' into circleci-project-setup	7m ago	8s	<a href="#">View</a> <a href="#">Logs</a> <a href="#">Edit</a> <a href="#">...</a>
sohw 2	✓ Success	say-hello-workflow	circleci-project-setup bee1c8 CircleCI Commit	10m ago	9s	<a href="#">View</a> <a href="#">Logs</a> <a href="#">Edit</a> <a href="#">...</a>
sohw 1	✓ Success	generate-config	main ba8828d update	13m ago	20s	<a href="#">View</a> <a href="#">Logs</a> <a href="#">Edit</a> <a href="#">...</a>

The screenshot shows the CircleCI web interface under the 'All Pipelines' tab. The sidebar on the left includes links for Organization Home, Pipelines, Projects, Releases (NEW), Insights, Self-Hosted Runners, Organization Settings, and Plan (UPGRADE). The main area displays a table of pipelines:

Project	Status	Workflow	Trigger Event	Start	Duration	Actions
sohw 4	<span style="color: green;">✓ Success</span>	say-hello-workflow	circleci-project-setup 494a419 Merge pull request #1 from liam-007/circleci-project-setup CircleCI project setup	27s ago	16s ↑	<a href="#">G</a> <a href="#">Q</a> <a href="#">X</a> <a href="#">...</a>
sohw 3	<span style="color: green;">✓ Success</span>	say-hello-workflow	circleci-project-setup 17624a7 Merge branch 'ST10031913:circleci-project-setup' into circleci-project-setup	29m ago	9s ↑	<a href="#">G</a> <a href="#">Q</a> <a href="#">X</a> <a href="#">...</a>
sohw 2	<span style="color: green;">✓ Success</span>	say-hello-workflow	circleci-project-setup beea1c8 CircleCI Commit	32m ago	9s ↑	<a href="#">G</a> <a href="#">Q</a> <a href="#">X</a> <a href="#">...</a>
sohw 1	<span style="color: green;">✓ Success</span>	generate-config	main ba8828d update	34m ago	20s	<a href="#">G</a> <a href="#">Q</a> <a href="#">X</a> <a href="#">...</a>

No more pipelines to load

The screenshot shows a GitHub commit history for the repository 'liam-007 / WILgroup19'. The commit 'WILgroup19 / .circleci / config.yml' is selected, showing the commit details and the contents of the 'config.yml' file. The commit message is 'CircleCI Commit' and it was made by 'bewatd8' 11 minutes ago.

```

version: 2.1

jobs:
  say-hello:
    docker:
      # Specify the version you desire here
      # See: https://circleci.com/docs/executor-intro/ & https://circleci.com/docs/configuration-reference/#executor-job
      - image: cimg/base:current

    steps:
      # Add steps to the job
      # See: https://circleci.com/docs/jobs-steps/#steps-overview & https://circleci.com/docs/configuration-reference/#steps
      - checkout
      - run:
          name: "Say hello"
          command: "echo Hello, World!"

```

(CircleCI, 2024)

## Benefits of DevOps for the Shadow of His Wings Project

The DevOps approach provided significant benefits to Jisedai's project for the Shadow of His Wings center:

- Enhanced Collaboration:** By using TeamFu for project management and GitHub for version control, Jisedai ensured that all team members were aligned, reducing communication gaps and improving overall efficiency.
- Accelerated Delivery:** The CI/CD pipeline in CircleCI allowed Jisedai to deploy updates quickly and safely, which ensured that Shadow of His Wings always had access to the latest version of the website.
- Increased Code Quality:** Automated tests in the CI/CD pipeline caught errors early, maintaining a high standard of code quality and reducing technical debt.

## Challenges and Solutions in Implementing DevOps

Implementing DevOps for this project presented a few challenges, which the team addressed effectively:

- **Initial Pipeline Configuration:** Setting up the CI/CD pipeline in CircleCI required some initial time investment. Jisedai's team researched best practices and referred to CircleCI's documentation to set up an optimized pipeline.
- **Managing Code Conflicts:** With multiple developers working simultaneously, conflicts occasionally occurred. The structured Git branching strategy, combined with regular code reviews, minimized and resolved conflicts promptly.
- **Coordinating Across Distributed Teams:** Jisedai's team had members working from different locations, which sometimes posed scheduling challenges. Using TeamFu for asynchronous updates and clear documentation helped bridge these gaps.

## Future Improvements and Recommendations

To further refine DevOps practices in future projects, Jisedai could consider:

- **Enhanced Test Coverage:** Expanding test automation to include UI and end-to-end testing could catch more bugs early.
- **Monitoring and Feedback Tools:** Using monitoring tools like Prometheus or Grafana for live production monitoring would provide insights into user behavior and identify potential issues.
- **CI/CD Pipeline Expansion:** Adding more stages to the CI/CD pipeline, such as blue-green deployments, could help ensure smooth transitions and minimal disruption for the Shadow of His Wings website users.

The adoption of DevOps by Jisedai for building the Shadow of His Wings website was instrumental in delivering a reliable, high-quality product efficiently. The use of TeamFu, Git and GitHub, and CircleCI created a streamlined, collaborative, and automated workflow that facilitated rapid development, thorough testing, and continuous delivery. As Jisedai looks to the future, further enhancements in testing and monitoring could improve DevOps practices and further benefit projects aimed at helping organizations like Shadow of His Wings achieve their missions.

## Agile Lifecycle for NGO Website Project: Shadow of His Wings

**Project Timeline:** Start Date - September 30, 2024

**Website Release Date:** November 13, 2024

The agile lifecycle for the “Shadow of His Wings” NGO website will be divided into structured phases to ensure that the project is completed efficiently and within the specified timeline. The phases will consist of detailed iterations, sprints, feature releases, and review processes, focusing on delivering a high-quality, user-friendly, and responsive website.

## 1. Project Initiation and Planning (September 30 - October 4, 2024)

- **Objective:** Establish project scope, objectives, and foundational requirements. Define key deliverables, assign roles, and create the initial Product Backlog.

### Activities

1. **Kickoff Meeting:** Outline project goals, introduce stakeholders, discuss high-level requirements, and understand NGO branding.
2. **Requirements Gathering:** Detailed discussions with the NGO stakeholders to determine specific needs for pages, functionalities, and user experience.
3. **Product Backlog Creation:** Create a comprehensive backlog based on requirements, categorized by priority and essential features.
4. **Team Assignments:** Assign roles and responsibilities to team members, including frontend, backend, UI/UX, and QA.
5. **Sprint Planning:** Define the first sprint scope with goals, tasks, and acceptance criteria.

## 2. Sprint Cycle 1 (October 7 - October 18, 2024)

- **Sprint Goal:** Establish the basic layout, homepage, and essential content pages. Focus on **frontend design and core structure**.

### Sprint Activities

1. **Homepage Design and Layout:** Develop a visually appealing homepage with the NGO's mission, images, and calls-to-action (CTAs).
2. **About Us Section:** Create a detailed "About Us" page with team profiles and NGO history.
3. **Responsive Design Implementation:** Begin implementing responsive design using CSS and media queries.
4. **Initial Testing:** Conduct early tests on various devices to validate responsive design.
5. **Daily Standups:** Monitor progress, discuss roadblocks, and adjust tasks as needed.

6. **Sprint Review:** Showcase the completed pages to stakeholders, gathering feedback to make iterative adjustments in Sprint 2.
7. **Retrospective:** Evaluate sprint performance and identify areas for improvement.

### 3. Sprint Cycle 2 (October 21 - November 1, 2024)

- **Sprint Goal:** Develop **functional and interactive pages**, focusing on donation, testimonial, and events functionality.

#### *Sprint Activities*

1. **Donation Page with Secure Form:** Develop and integrate a donation form with options for one-time and recurring donations.
2. **Testimonials and Success Stories:** Create a testimonials section featuring stories and quotes from previous donors or beneficiaries.
3. **Contact Page:** Develop a contact page with an interactive form and contact information, including validation for proper data entry.
4. **Data Schema for Donations and Events:** Design and implement a MySQL database schema to securely store donation records and event data.
5. **Testing and Refinement:** Conduct usability testing for forms, responsiveness, and user flow.
6. **Sprint Review:** Present completed sections to stakeholders, focusing on feedback for interactive and form-based features.
7. **Retrospective:** Identify lessons learned and improvements for the upcoming sprint.

### 4. Sprint Cycle 3 (November 4 - November 10, 2024)

- **Sprint Goal:** Finalize backend and admin functionality for dynamic content updates, security, and **complete user authentication for admin access**.

#### *Sprint Activities*

1. **Admin Dashboard Development:** Create a secure admin dashboard where authorized users can add or update events and testimonials.
2. **User Authentication Setup:** Implement and test login functionality with encrypted passwords for admin access.
3. **Mobile and Browser Testing:** Conduct final mobile, browser, and device compatibility testing to ensure the website functions seamlessly on various platforms.
4. **UI Enhancements:** Polish UI based on feedback, ensuring a modern, clean design.

5. **Sprint Review:** Demo completed features and allow stakeholders to interact with the final product for sign-off.
6. **Retrospective:** Reflect on the project cycle to identify improvements for future releases and finalize documentation.

## 5. Pre-Launch Phase (November 11 - November 12, 2024)

- **Objective:** Complete final touches, security checks, and launch preparations.

### Activities

1. **Final Quality Assurance:** Perform an end-to-end QA cycle to identify any last-minute bugs or inconsistencies.
2. **Security Testing:** Ensure that all pages are secure, especially the donation and admin sections, by testing against potential vulnerabilities.
3. **Database Backup and Final Checks:** Verify database connections, back up data, and confirm that forms and dashboards are functioning.
4. **Stakeholder Review and Sign-off:** Present the fully functional website to stakeholders for final approval.
5. **Launch Plan:** Outline the steps for the official release, including domain setup, hosting configurations, and going live.

## 6. Launch Date (November 13, 2024)

- **Goal:** Officially release the "Shadow of His Wings" website to the public.

### Launch Activities

1. **Go Live:** Set the website live by configuring the domain and server.
2. **Launch Communication:** Send out announcements via the NGO's social channels, newsletter, and press releases.
3. **Monitoring and Immediate Support:** Monitor the website post-launch for any issues, providing immediate support for critical bugs or downtime.
4. **User Feedback Collection:** Enable a feedback form for visitors to capture initial impressions and any issues faced by users.

## 7. Post-Launch Support and Maintenance (November 14 - November 27, 2024)

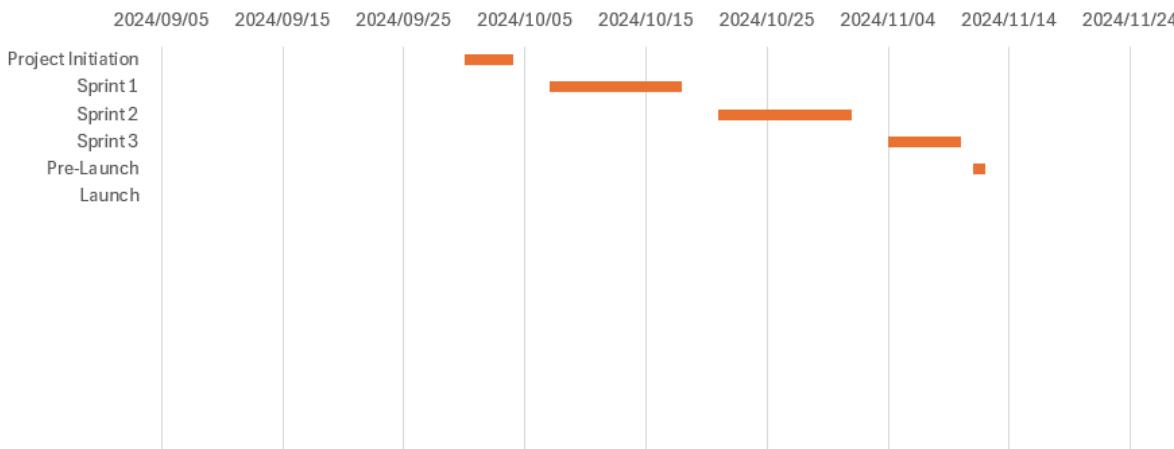
- **Objective:** Gather user feedback and optimize the site based on real-world usage data.

### **Post-Launch Activities**

- User Feedback Review:** Analyze feedback collected through the site and social channels, categorizing them by priority.
- Bug Fixes and Updates:** Address any minor bugs or UI/UX improvements.
- Documentation Finalization:** Complete technical documentation and user guides for the NGO's internal use, specifically for managing the admin dashboard.
- Feature Planning for Future Releases:** Identify new features or improvements for future releases based on user feedback and team discussions.

## **ROAD MAP - (HIGH LEVEL PLAN)**

Phase	Dates
Project Initiation	Sept 30 - Oct 4
Sprint 1	Oct 7 - Oct 18
Sprint 2	Oct 21 - Nov 1
Sprint 3	Nov 4 - Nov 10
Pre-Launch	Nov 11 - Nov 12
Launch	Nov 13
Post-Launch	Nov 14 - Nov 27



(Excel, 2024)

# Product Backlog for NGO Website Build: Shadow of His Wings

## Product Backlog

ID	User Story	Description	Priority	Estimated Time
001	<b>Homepage Landing</b>	As a visitor interested in learning about the NGO, I want to see a welcoming and visually appealing homepage that highlights the mission of Shadow of His Wings, along with clear calls-to-action (CTAs) for donations and volunteering, so that I am immediately engaged and understand the NGO's purpose upon landing on the site.	High	3 days
002	<b>About Us - Mission and History</b>	As a visitor looking to understand the organization's background, I want to read an in-depth "About Us" section that includes the NGO's mission, core values, and history, as well as brief profiles of key team members. This helps me gain trust in the organization and feel a connection to its cause.	High	2 days
003	<b>Donation Page with Secure Form</b>	As a donor, I want to access a user-friendly, secure donation form with options for various payment methods (credit card, PayPal, etc.) and customizable donation amounts. This feature should reassure me about data security, provide transaction confirmation, and enable recurring donations if desired.	High	4 days
004	<b>Testimonials and Success Stories</b>	As a prospective donor or volunteer, I want to read real testimonials and success stories from people who have been impacted by the NPO's work, so that I can trust the organization's impact and feel motivated to support or join its efforts. This section should include images and quotes to humanize the testimonials.	Medium	2 days
005	<b>Upcoming Events Page</b>	As a <b>community member or supporter</b> , I want to <b>see a list of upcoming events organized by the NGO</b> , including dates, locations, and descriptions. This page should allow me to register for events or contact event organizers directly.	Medium	3 days
006	<b>Contact Form and Information</b>	As a visitor or potential volunteer, I want to reach out to the NGO via a contact form where I can leave my details, inquiries, and comments,	High	2 days

		ensuring a timely response from the organization. I should also be able to see contact information (address, phone number, email) for alternative communication methods.		
007	<b>Mobile Responsiveness</b>	As a user on a mobile device, I want the website to load quickly and display seamlessly on all screen sizes, so I can navigate the website easily and comfortably whether I am on my phone, tablet, or desktop.	High	4 days
008	<b>Admin Dashboard for Event and Testimonial Management</b>	As an admin user, I need an admin dashboard to manage event information and <b>testimonials</b> (e.g., adding, updating, or removing events or testimonials) so that the website remains current and accurately reflects the organization's activities.	High	4 days
009	<b>Data Storage for Donations, Events, and Testimonials</b>	As a developer, I want to design and implement a secure database schema that ensures data integrity and allows for efficient storage and retrieval of data, such as donation records, event details, and testimonials. This should involve setting up MySQL tables with proper relationships and constraints.	High	5 days
010	<b>User Authentication for Admin</b>	As an admin, I need secure login and authentication functionality so that only authorized users can access the admin dashboard, ensuring the website's content and data remain secure.	High	3 days

## Sprint Backlog

Each sprint backlog contains selected stories from the product backlog, prioritized to deliver valuable features incrementally.

### ***Sprint 1 (Weeks 1-2): Setting up Structure, Content, and Initial Frontend***

**Sprint Goal:** Complete the basic structure, styling, and initial core content of the website.

ID	User Story	Description
001	<b>Homepage Landing</b>	Create the homepage with a welcoming banner image, a brief mission statement, and prominent buttons that encourage users to donate or

		volunteer. The page should include high-quality images that resonate with the NGO's work and values.
002	<b>About Us - Mission and History</b>	Develop a dedicated "About Us" page featuring the NGO's mission, a section on core values, and a concise history of the organization. Include professional headshots and short bios for the primary team members.
004	<b>Testimonials and Success Stories</b>	Create a section on the homepage or a dedicated page where testimonials and stories from past donors or beneficiaries are highlighted. This section should include images and formatting to improve readability and engagement.
007	<b>Mobile Responsiveness</b>	Implement responsive design using media queries and flexible layouts, ensuring that all pages (Home, About Us, Testimonials) adapt smoothly to different screen sizes, especially mobile devices.

**Sprint Artifacts:** Sprint Backlog, Sprint Goals, Sprint Review

### ***Sprint 2 (Weeks 3-4): Form Functionality and Data Management***

**Sprint Goal:** Build donation and contact form functionality, as well as data storage for events and donations.

ID	User Story	Description
003	<b>Donation Page with Secure Form</b>	Develop the donation page with an embedded form, allowing users to select donation amounts, payment methods, and optionally choose recurring donations. Configure the form to redirect to a confirmation page and securely store transaction details.
006	<b>Contact Form and Information</b>	Add a contact page with a form for inquiries and messages. Include organization contact details and ensure form validation (required fields, valid email format).
009	<b>Data Storage for Donations, Events, and Testimonials</b>	Design and implement a MySQL database schema with tables for donations, events, and testimonials. Structure tables with primary keys, foreign keys (where applicable), and constraints.

**Sprint Artifacts:** Database Schema Documentation, Sprint Backlog, Sprint Review

### ***Sprint 3 (Weeks 5-6): Backend Development and Admin Features***

**Sprint Goal:** Develop backend features, implement an admin dashboard, and secure admin authentication.

ID	User Story	Description

005	<b>Upcoming Events Page</b>	Create an events page that lists all upcoming NGO events. Integrate it with the database so that event information is dynamically loaded and can be updated through the admin dashboard.
008	<b>Admin Dashboard for Event and Testimonial Management</b>	Design and implement a simple dashboard allowing the admin to log in and manage event and testimonial entries. This dashboard will be secured to ensure only the admin has access.
010	<b>User Authentication for Admin</b>	Implement a login feature with password encryption for admin access to the dashboard, ensuring secure access to the dashboard for event and testimonial management.

**Sprint Artifacts:** Backend Code, Admin Authentication Module, Sprint Backlog, Sprint Review

## SPRINT ATTENDANCE RECORD

**GROUP NAME:** Jisedai (WIL Group 19)

**SPRINT:** Setting up Structure, Content, and Initial Frontend

Attendees	Backlog Grooming	Sprint Planning	Sprint Review	Sprint Retrospective	Daily Scrums
Client			Attended		
WIL Coordinator					
Lecturer	n/a	n/a	n/a	n/a	n/a

## SPRINT ATTENDANCE RECORD

**GROUP NAME:** Jisedai (WIL Group 19)

**SPRINT:** Form Functionality and Data Management

Attendees	Backlog Grooming	Sprint Planning	Sprint Review	Sprint Retrospective	Daily Scrums
Client			Attended		
WIL Coordinator					
Lecturer	n/a	n/a	n/a	n/a	n/a

## SPRINT ATTENDANCE RECORD

**GROUP NAME:** Jisedai (WIL Group 19)

**SPRINT:** Backend Development and Admin Features

Attendees	Backlog Grooming	Sprint Planning	Sprint Review	Sprint Retrospective	Daily Scrums
Client			Attended		
WIL Coordinator					
Lecturer	n/a	n/a	n/a	n/a	n/a

## User Manual

### **Introduction**

Welcome to the Shadow of His Wings website. This platform is dedicated to supporting those in need through various events and initiatives. This user manual will guide you through the different sections of the website and how to use them effectively.

### **Home Page**

The Home Page provides an overview of our mission and upcoming activities. You can navigate to different sections of the website using the navigation bar at the top.

### **About Us**

The About Us page offers detailed information about our organization, our mission, and the team behind Shadow of His Wings.

To navigate to the About Us page:

- Click on the "About Us" tab in the navigation bar.

### **Contact Us**

The Contact Us page allows users to reach out to us with their questions, comments, or concerns.

To submit a contact form:

- Click on the "Contact" tab in the navigation bar.
- Fill out the form with your name, surname, email, and comment.
- Click the "Send" button to submit your message.
- You will receive a confirmation message if your submission is successful.

### **Donation**

The Donation page allows you to support our initiatives financially.

To make a donation:

- Click on the "Donation" tab in the navigation bar.
- Payment method (PayPal).
- Follow the instructions to complete your transaction.
- Account Beneficiary Details within the Web Page

## **Events**

The Events page lists all upcoming events organized by Shadow of His Wings.

To view events:

- Click on the "Events" tab in the navigation bar.
- Browse through the list of events. Each event is displayed in a card format with details such as title, description, location, and date.

## **Testimonial**

The Testimonial Page allows the users to go through all the past Patients experiences through the recovery processes by viewing their testimony messages and video's.

To view Testimonials:

- Click on the “Testimonial” tab in the navigation bar.
- Browse through all the lists of past Testimonies and view YouTube videos through the embedded links.

## **Media**

The Media Page displays all the NPO past event images/videos and facility image's view pages.

To view media:

- Click on the “Media” tab in the navigation bar.
- Then greeted by Videos and Gallery Options
- Browse through both options and user will filter through images/videos

## **Admin Login**

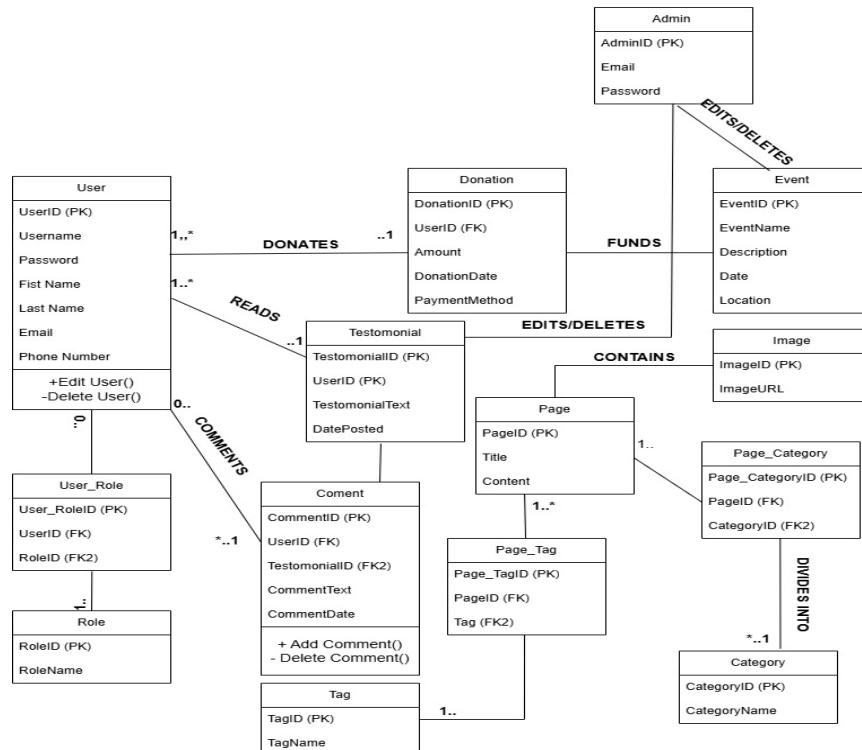
The Admin login is only for authorized personnel with the user logins given to them once accessed with the correct credentials:

Three New Tabs will open:

- Admin users will have full access to the Website
- **Manage Testimonials:** Admin users will be able to add, edit and delete past patients testimonies with the patients names and approve or disapprove the testimony.
- **Mange Events:** For Event management the Admin user will be able to add, edit and delete Events with images and descriptions
- **Manage Media:** Media management will be controlled by the Admin user as they are able to add videos and images with images separated by categories (Events and Facilities)

## DIAGRAMS AND DESIGNS

ERD:

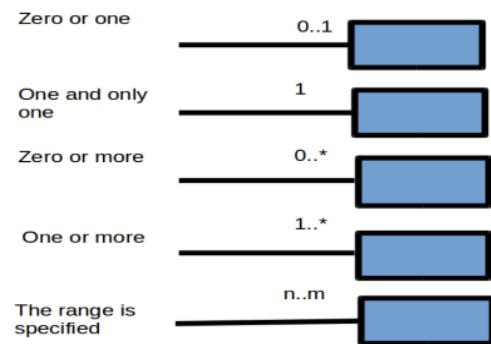


(Draw.io, 2024)

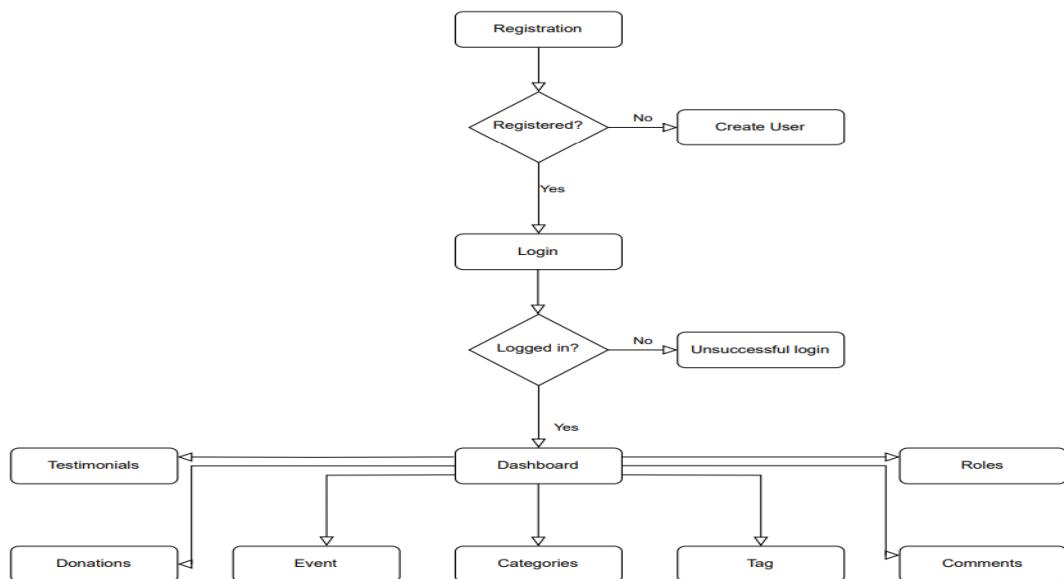
## KEY:

PK: Primary Key

FK: Foreign Key



## WIL Flow Diagram:



(Draw.io, 2024)

## WIL Web Design (Original Design):

The home page features a large white text box containing the quote "WHERE THERE'S BREATH THERE'S HOPE". Below the quote is a photograph of a person's arm reaching out, with a small green plus sign icon above it. To the right of the image is a block of text about the centre's mission. At the bottom left is a logo for "DONE BY JISEDAI" with a stylized circular icon. On the right is a "SHOW MORE" button and a WhatsApp icon.

The services page has a large white text box with the heading "OUR SERVICES". To the right is a block of text explaining their unique approach to recovery. Below this are four service categories: "HOUSING", "DRUG RECOVERY", "FOOD & TOILETRIES", and "DAILY ROUTINES".

The about us page features a large white text box with the heading "ABOUT US". It includes a block of text about the centre's mission and values, followed by a quote from a client. To the right is a large white cross icon.

 SHADOW OF HIS WINGS

Home Service HOW TO HELP About Us TESTIMONIALS contact us

Name

Email  Phone Number

Message

**Contact Us**

For questions or collaboration opportunities via the contact information provided.

+83 233 8249  
+74 891 0714  
rita@blacol.co.za  
matthew@blacol.co.za  
123 Anywhere St., Any City, ST 12345

**Submit** **Donate**

 SHADOW OF HIS WINGS

Home Service **How to help** About Us TESTIMONIALS CONTACT US

## HOW TO HELP



Cash Donations



Clothing Donations



Food Donations



Volunteering

 SHADOW OF HIS WINGS

Home Service HOW TO HELP About Us Testimonials CONTACT US

## Testimonials



**Anonymous**

My time at shadow of his wings recovery centre was nothing short of life-changing. I came in feeling lost and hopeless, battling addiction and feeling distant from God. But the moment I walked through those doors, I knew I had found a place where there was a community that truly cared. The counselors and staff not only helped me overcome my struggles with substance abuse but also guided me on a journey of self-discovery and spiritual growth.

The 6-week program was exactly what I needed to dig deep, confront my demons, and rediscover my faith. Through prayer, counseling sessions, and meaningful discussions rooted in Christian teachings, I found the strength to break free from addiction and embrace a new way of life.



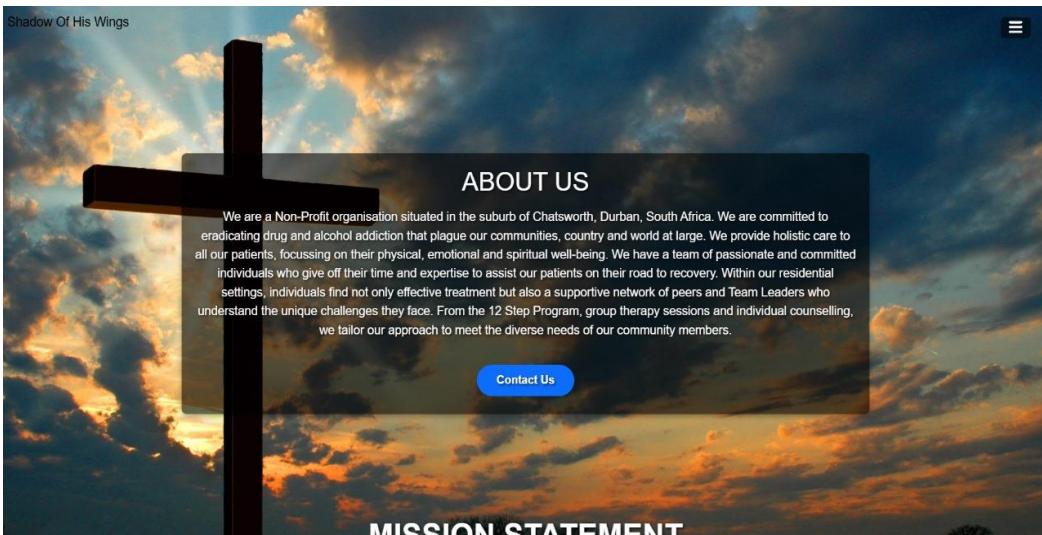
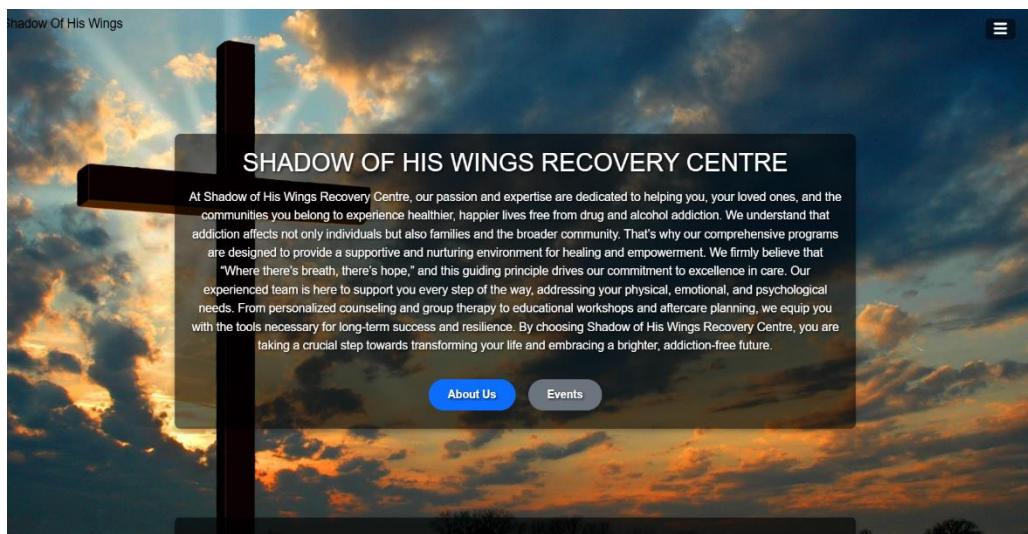
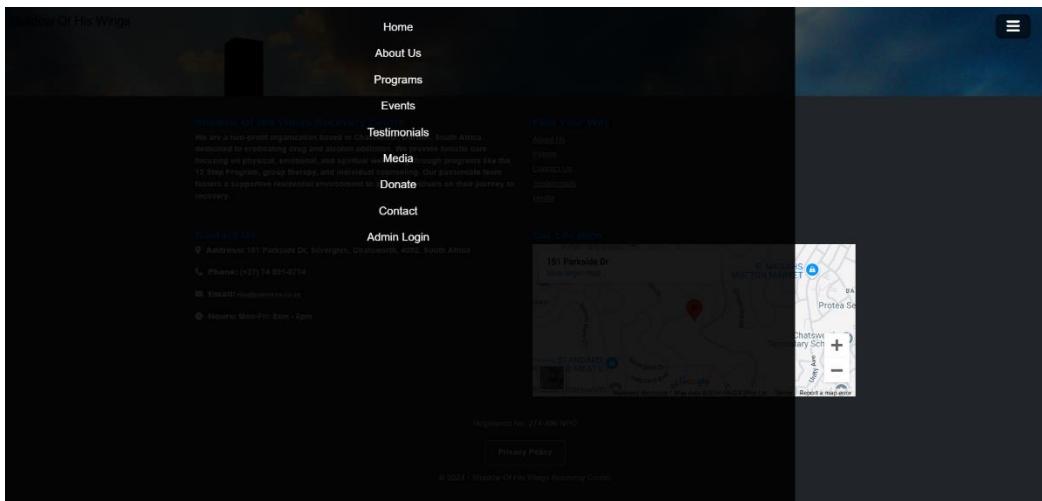
**Michael**

When I first arrived at shadow of his wings recovery centre, I was skeptical. I had tried other programs before and nothing seemed to stick. But from the moment I stepped into this place, I knew it was different. The atmosphere was peaceful and welcoming, and I could sense the genuine care from the staff. During my 4-week program, I was challenged in ways I never thought possible. Through group therapy, individual counseling, and daily devotions, I began to see myself and my addiction in a new light. The Christian principles woven into every aspect of the program provided a solid foundation for success. Today, I am proud to say that I am sober and walking hand in hand with God.

(Canva, 2024)

[https://www.canva.com/design/DAF9H8TlXc/F\\_F3jgitqrHQEMq9LilWA/edit?utm\\_content=DAF9H8TlXc&utm\\_campaign=designshare&utm\\_medium=link2&utm\\_source=sharebutton](https://www.canva.com/design/DAF9H8TlXc/F_F3jgitqrHQEMq9LilWA/edit?utm_content=DAF9H8TlXc&utm_campaign=designshare&utm_medium=link2&utm_source=sharebutton)

# Website Wireframe's



Shadow Of His Wings

## MISSION STATEMENT

Here at SHADOW OF HIS WINGS RECOVERY CENTRE, our mission is to provide affordable, personalised, supportive, and compassionate care to those who are suffering from an addiction. Our mission is also to treat each client's underlying core problems in order to help them heal mentally, physically, and spiritually.

## OUR VISION

SHADOW OF HIS WINGS RECOVERY CENTRE will continue to facilitate opportunities for the individuals we serve to fulfil their recovery goals and once again be re-integrated as valued community members. Our vision is based on the foundation of love, integrity, and trust, a respect for the dignity of life, and a spirit of building hope together.

Shadow Of His Wings

## OUR CORE VALUES

### Respect and Love

We respect and love ALL individuals regardless of race, gender, beliefs, and background.

### Holistic Approach

We believe that alcohol and drug addiction is a disease affecting the mind, body, and soul.

### Living by Attributes

We strive to live by attributes: love, joy, peace, patience, kindness, goodness, faithfulness, gentleness, self-control.

### 12-Step Recovery Program

We are committed to providing a recovery program based on the 12 steps of recovery.

### Prudent Stewardship

We show discipline in stewardship and ensure prudent financial practices at all times.

### Reflecting Our Values

Our actions reflect the values we believe in.

### Opportunity for Success

We ensure that every resident is given the opportunity to succeed in their recovery from their addiction(s).

### Priority on Residents and Staff

We always give priority to any matters related to our residents and staff.

Shadow Of His Wings

## HEAR FROM OUR TEAM

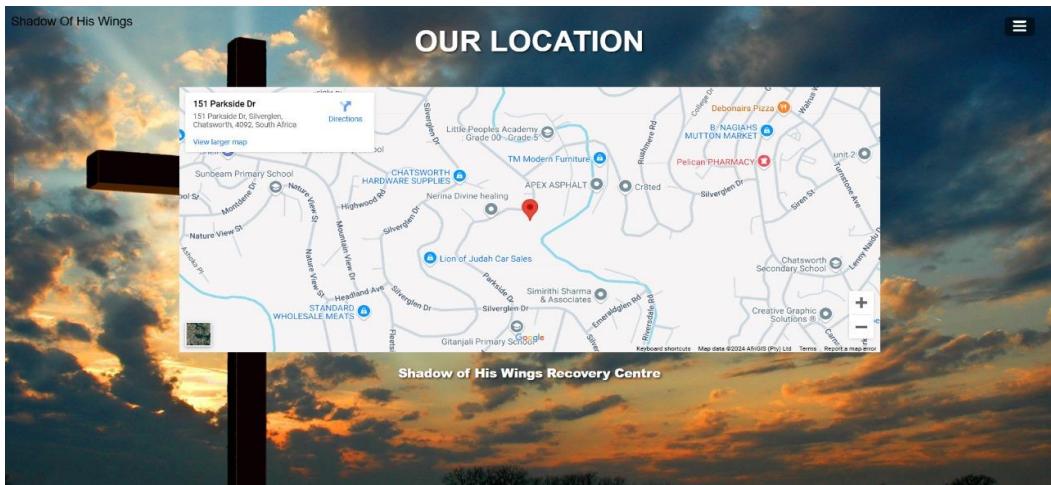
Rita Abraham - NPO Founder

Pst Barney Kistnasamy (Shadow Of ...

Rita Abraham - Founder of Shadow of His Wings Recovery Centre

Pst Barney - Resident Pastor of Shadow of His Wings Recovery Centre

## OUR LOCATION



## OUR SERVICES

**Programs**  
Explore our structured programs that support recovery and spiritual growth.  
[Learn More](#)

**Counsellors**  
Meet our dedicated team of counsellors guiding individuals on their journey.  
[Learn More](#)

**Outreach Programs**  
Learn about our community outreach programs impacting lives.  
[Learn More](#)

**Contact Us**  
Address: 151 Parkside Dr, Silvergreen, Chatsworth, 4092, South Africa  
Phone: +27 71 74 881 0714

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[Media](#)

**Our Location**  
151 Parkside Dr  
Silvergreen, Chatsworth, 4092, South Africa  
B. NAGIAMS

## MEET OUR COUNSELLORS

**Pastor Sergei Samuel Chetty and Pastor Jesse James**  
Pastor  
Our role is to offer love and support, and being patient, expecting change as we teach on the following subjects. (1) Biblical Principles. (2) Emotions. Can we trust them? Grief, Anger etc. Interpretation of Impressions: Why you can't trust inner feelings. How to test feelings. (3) Suicide Prevention Awareness: Family Life. Short Term: Withdrawal, Aggression, Irritability, Rage. Long Term: Divorce, Social Isolation, Poor Relationships. (4) Counselling: Condemnation, Confidence, Depression, Positive Mind, Confessions, Suicidal Tendencies, well-Being etc. These lessons, from our

**Pastor Barney**  
Pastor  
I am the resident Pastor of Shadow of HHS Wings Recovery Centre I see persons from all occupations and backgrounds who enrol for treatment against substance abuse. In my counselling with them I have established mental disorders, history of trauma and possible environmental and social influences that have attributed to substance addiction, as a counsellor, use one on one and group therapy sessions where patients are encouraged to talk about their issues. Families are also afforded the opportunity to be part of the patient's recovery process. Finally, the main aim of the recovery Centre is to assist the

**Samuel Okoye**  
Christian counsellor  
It is common notice that our societies today are plagued by addiction and substance abuse. As many aspects of humanity collapses, people are searching for comfort. Unfortunately, many are taking to substance abuse and its destructive part. I started working with Shadow of HHS Wings in 2018. Having come out of a life of addiction and drug dealing, there was a burning desire to help others break free from the shackles of drug abuse. This was when I met Rita and Matthew Abrahams, a couple with a similar vision and passion for broken people. At shadow of HHS Wings, we believe addiction is a spiritual enslavement that

Shadow Of His Wings

# PROGRAMS

## What We Offer

12 Step Programme  
Lectures and written work  
Individual Counselling  
Support Groups facilitated by team leaders  
Daily Spiritual Programs

[Back to Services](#)

**Shadow Of His Wings Recovery Centre**  
We are a non-profit organization based in Chatsworth, Durban, South Africa, dedicated to eradicating drug and alcohol addiction. We provide holistic care focusing on physical, emotional, and spiritual well-being through programs like the 12 Step Program, group therapy, and individual counseling. Our passionate team fosters a supportive residential environment to assist individuals on their journey to recovery.

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[Contact Us](#)  
Address: 1610 Berkshires Dr, Chatsworth, Chatsworth, KZN, South Africa  
[Our Location](#)

Shadow Of His Wings

# OUTREACH PROGRAMS

## Our Outreach Programs

Visits to local communities and schools where patients share their stories and bring awareness about the detriments of substance abuse.

### Outreach Events



Shadow Of His Wings

# TESTIMONIALS

"I'm Denver Pillay from phoenix, married with two children. Been in addiction with drugs. It has been a blessing to my life coming out of a place of darkness over 12 years being blind poor and hungry spiritually, broken and physically challenged. I thank God for firstly showing himself to me through Shadow of His Wings Recovery Centre and the programme it carries out. It is a dramatic and internal change that I always longed and yearned for, looking and thinking what the world could provide, not knowing and seeing that it was right in front of me. Here in Shadow of His Wings, it has trained me not only by the word being applied in my life but also training me not to continue in my addiction. It also disciplined me to live a better life free and clean from Drugs. All Glory to God for giving me a new life."

Denver Pillay  
November 17, 2024

**Hear Their Stories**

Shadow Of His Wings

**Hear Their Stories**

Watch some of the personal journeys shared by those who have found hope and recovery with us.

Ryan's Testimony (Shadow Of His Wings Recovery Centre)

Bruce's Testimony (Shadow Of His Wings Recovery Centre)

Nathan Mahabeer Testimony (Shadow Of His Wings Recovery Centre)

Testimonial - Ryan Reddy

Testimonial - Bruce Sewparsad

Testimonial - Nathan Mahabeer

More

Shadow Of His Wings Recovery Centre

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# EVENTS

No events are currently scheduled.

**Shadow Of His Wings Recovery Centre**

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**Contact Us**

Address: 151 Parkside Dr, Silverlenn, Chatsworth, 4092, South Africa

Phone: (+27) 74 891-0714

Email: info@center.co.za

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Media

**Our Location**

Veterinary Clinic, Chatsworth, KwaZulu-Natal, South Africa

151 Parkside Dr

View larger map

B. NAGIAMS MUTTON MARKET

Shadow Of His Wings

# CONTACT US

Name

Email

Subject

Message

Send

Shadow Of His Wings

## MEDIA

Explore our collection of videos and photo gallery capturing our mission and journey.

[Videos](#) [Gallery](#)

**Shadow Of His Wings Recovery Centre**  
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## LOGIN

Email

Password

[Login](#)

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## MANAGE TESTIMONIALS

Add New Testimonial

Author	Content	Date Created	Approved	Actions
Denver Pillay	I'm Denver Pillay from phoenix, married with two children. Been in addiction with drugs. It has been a blessing to my life coming out of a place of darkness over 12 years being blind poor and hungry spiritually, broken and physically challenged. I thank God for firstly showing himself to me through Shadow Of His Wings Recovery Centre and the programme it carries out. It is a dramatic and internal change that I always longed and yearned for, looking and thinking what the world could provide, not knowing and seeing that it was right in front of me. Here in Shadow of His Wings, it has trained me not only by the word being applied in my life but also training me not to continue in my addiction. It also disciplined me to live a better life free and clean from Drugs. All Glory to God for giving me a new life."	November 17, 2024	<input checked="" type="checkbox"/>	<button>Edit</button> <button>Delete</button>

**Shadow Of His Wings Recovery Centre**  
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[Media](#)

Shadow Of His Wings

## MANAGE MEDIA

Add New Media

Title	Category	Type	Media	Date Uploaded	Actions
Testimony		Video	<a href="#">View Video</a>	November 16, 2024	<button>Edit</button> <button>Delete</button>
Testimony		Video	<a href="#">View Video</a>	November 16, 2024	<button>Edit</button> <button>Delete</button>
Testimony		Video	<a href="#">View Video</a>	November 16, 2024	<button>Edit</button> <button>Delete</button>
Testimony		Video	<a href="#">View Video</a>	November 16, 2024	<button>Edit</button> <button>Delete</button>
feeding scheme	Event	Image		November 16, 2024	<button>Edit</button> <button>Delete</button>
feeding scheme	Event	Image		November 16, 2024	<button>Edit</button> <button>Delete</button>
feeding scheme	Event	Image		November 16, 2024	<button>Edit</button> <button>Delete</button>

Shadow Of His Wings

## MANAGE EVENTS

Create New Event

Title	Date	Location	Description	Actions
No events found.				

**Shadow Of His Wings Recovery Centre**  
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**Contact Us**  
Address: 151 Parkside Dr, Silverglen, Chatsworth, 4032, South Africa  
Phone: (+27) 74 891-0714  
Email: [natalia@shwh.org.za](mailto:natalia@shwh.org.za)  
Hours: Mon-Fri: 8am - 6pm

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**Our Location**  
Veterinary Clinic  
151 Parkside Dr  
[View larger map](#)

Shadow Of His Wings

## CREATE EVENT

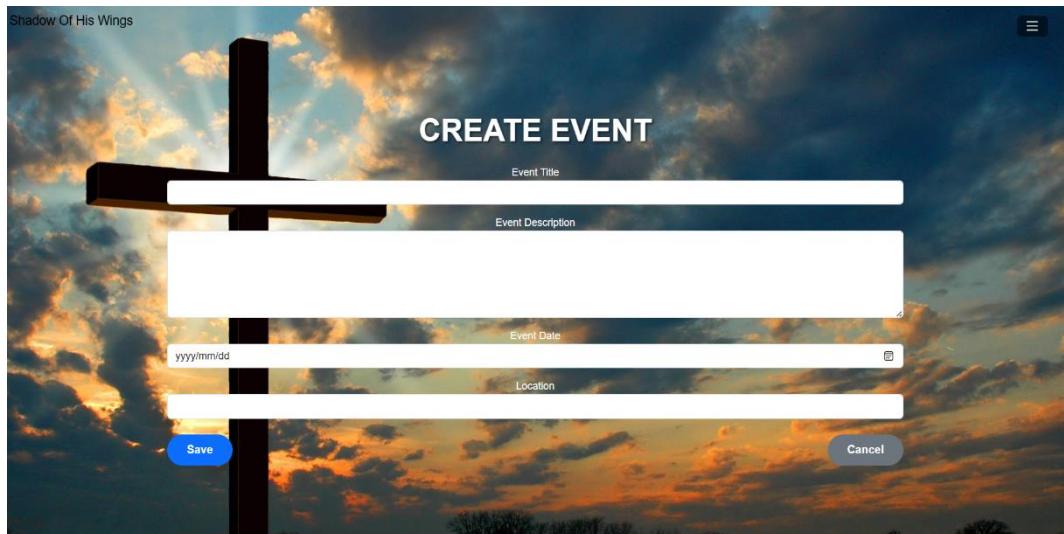
Event Title

Event Description

Event Date  
yyyy/mm/dd

Location

Save Cancel



Shadow Of His Wings

## ADD NEW TESTIMONIAL

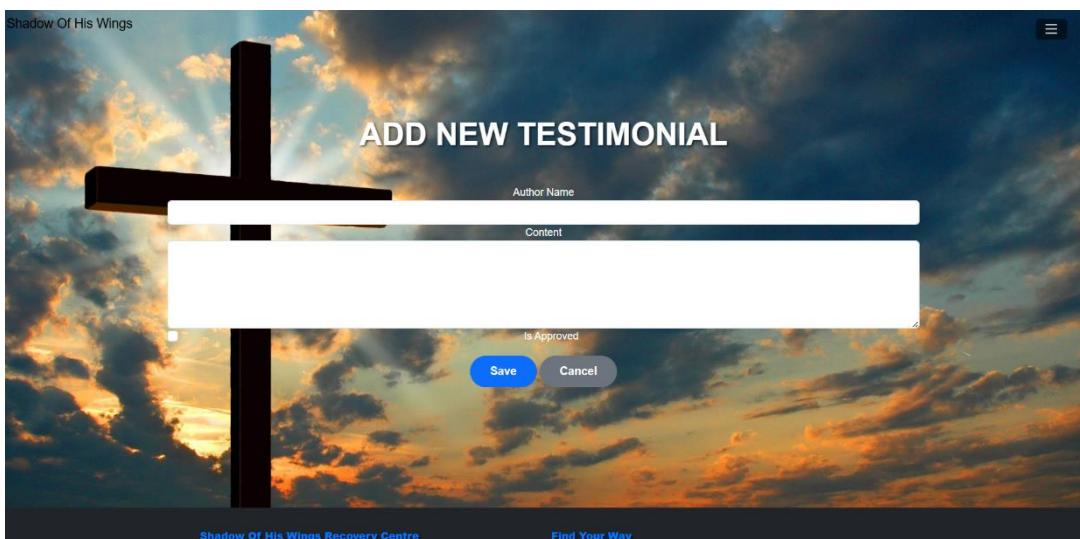
Author Name

Content

Is Approved

Save Cancel

Shadow Of His Wings Recovery Centre Find Your Way



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## ADD NEW MEDIA

Media Title

Media Type

Image

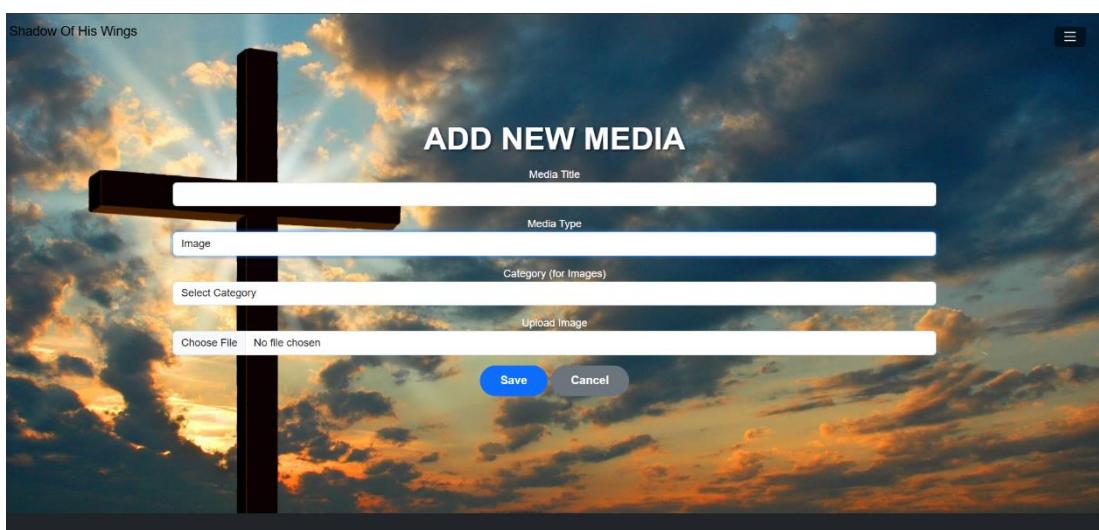
Category (for Images)

Select Category

Upload Image

Choose File No file chosen

Save Cancel



# Curriculum Vitae's

## Saneliso Lehlohlala:

### SANELISO LEHLOHLALA

<https://saneliso.netlify.app/>

 082 098 2490

 sanelsolehlohlala@gmail.com

 19 Meller Crescent, Durban

#### About Me

As a driven and ambitious student pursuing a Bachelor of Computer and Information Sciences in Applied Development, I am dedicated to cultivating my skills and knowledge to become a proficient Software Engineer. With a keen interest in innovative technologies and a strong foundation in computer science principles, I am dedicated to seek opportunities for growth and learning. Through hands-on projects, research, problem-solving, collaborative learning, and real-world applications, I aim to develop expertise in software design, development, and deployment, poised to make a meaningful impact in the tech industry upon graduation.

#### Experience

##### Glenwood High School March 2018 - May 2018

Sports Event Co-ordinator

Worked at a School Sports Festival, which was a paid Part-time. In where I was tasked to organize sports equipment and the overall safeguarding of the event.

##### AEA July 2024 - September 2024

Bartender

Bartender at the Hollywood Bet's Sharks Rugby stadium, under AEA management. I was tasked to serve customer beverages and foods.

#### Education

##### 2017-2021

Glenwood High School  
Matric

Matriculated at Glenwood High School in Durban where I completed High with a Bachelor's Pass degree

##### 2022-Present

IIE Varsity College  
Bachelor of Computer and Information Sciences in Applied Development

Currently undergoing a Undergraduate degree at the IIE Varsity College institution, completing a Computer Sciences degree and Aspiring to become a future Software Engineer

#### Language

IsiZulu  
English  
Xhosa

#### Expertise

- C#
- Java
- JavaScript
- Kotlin
- Azure
- MySQL
- HTML
- CSS
- Team Work

#### Reference

Yusef Goga  
IIE Varsity College  
**Contact**  
064 459 139/  
yogoga@varsitycollege.co.za

David Foley  
AEA Manager  
**Contact**  
071 200 6906

## Liam Abraham:



**Liam Cole Abraham**

Software Developer

### Profile

I am an aspiring Software Developer currently pursuing the Bachelor of Computer and Information Sciences Degree at The IIE's Varsity College, Westville. I am avid to learn, grow and prosper in the field. I am enthusiastic and committed to resolving complex software challenges, in order to deliver results of exceptional quality. I am passionate about refining my craft and consistently improving, to ensure that every project I undertake is completed to the best of my ability.

### Employment History

#### Software Developer at Shadow of his wings NGO, Durban

January 2024 — Present

- Built a ASP.NET Web application.
- Developed a Android mobile app.
- Leverage SMS for data storage and retrieval to elevate web performance and bolster reliability.
- Utilize Firebase to store and retrieve data, resulting in improved app performance and reliability.

#### Hands-on Logistics Coordinator at Painterior CC, Durban

January 2022 — February 2023

- Decanting of paint primer and lacquer thinners.
- Stock check.
- Labelling and packaging products.
- Cleaning and organizing the work space within the business facility.
- Managing the loading and unloading of materials or products for outbound deliveries and incoming stock.

### Education

#### Bachelor of Computer and Information Sciences in Application Development, IIE Varsity College, Durban

February 2022 — Present

Obtained 4 distinctions - (2022)

Obtained 3 distinctions - (2023)

#### NSC - Bachelor pass, Kharwastan Secondary, Durban

January 2017 — November 2021

### Extra-curricular activities

#### Volunteer at Shadow of his wings rehabilitation centre, Durban(Chatsworth)

January 2020 — Present

### Details

South Africa  
(+27) 81 556 1094  
[liamcole070@gmail.com](mailto:liamcole070@gmail.com)

Nationality  
South Africa

### Links

[GitHub Portfolio](#)  
[LinkedIn Profile](#)

### Skills

HTML  
CSS  
Javascript  
Oracle SQL  
C#  
Java  
MongoDB  
Kotlin  
Firebase  
Communication  
Critical Thinking  
Team Work

### Languages

Afrikaans  
English

### Hobbies

Gaming  
Physical Training  
Programming  
Football

## Hamzah Ballim:

# HAMZAH BALLIM

Phone : 074 586 4207

E-mail : [hsballim@gmail.com](mailto:hsballim@gmail.com)

### Summary

Dedicated Bachelor of Computer and Information Sciences student specializing in Application Development, passionate about harnessing technology to create innovative solutions. Proficient in diverse programming languages and frameworks, driven by a relentless pursuit of mastering emerging technologies. Committed to applying theoretical knowledge and practical skills to contribute effectively to the ever-evolving landscape of software development. Well-versed in numerous programming languages including Python, JavaScript, C# and SQL.

### Personal Details

First Name : Hamzah

Last Name : Ballim

Gender : Male

Date of Birth : 25 November 2001

ID # : 0111255211083

Marital Status: Single

Address : 10 Woodlands Avenue, Westville, Durban, 3629

Nationality : South African; Indian

Languages : English, Afrikaans

Driver's License: Code 8

## **References:**

- Draw.io. (2019). Flowchart Maker & Online Diagram Software. [online] Available at: <http://draw.io>.
- Standford.edu. (2024). Software Ethical and Piracy. [online] Available at: <https://cs.stanford.edu/people/eroberts/cs181/projects/software-piracy/ethical.html>
- Newspersctivestudio.com. (2023). Ethical Website Practices. [online] Available at: <https://www.newperspectivestudio.co.za/Ethical-Web-Design-Practices/>
- Coucilofnonprofits.org. (2024) Ethics in financial transparency. [online] Available at: <https://www.councilofnonprofits.org/running-nonprofit/ethics-accountability/financial-transparency-and-public-disclosure-requirements>
- Softwareread.com. (2024) Risk Management. [online] Available at: [https://www.softwareag.com/en\\_corporate/resources/process-management/ar/risk-resilience-management.html?utm\\_source=google&utm\\_medium=cpc&utm\\_campaign=bt\\_aris&utm\\_region=hq&utm\\_subcampaign=stg-1&utm\\_content=stg-1\\_wp\\_360-visibility-risk-resilience-mgmt&gad\\_source=1&gclid=Cj0KCQiAi\\_G5BhDXARIsAN5SX7o633nCPSamx1rf2Y2pfj3obByU2SmbcnCHSLmGQBCA-nTNoz03PAaAoOdEALw\\_wcB](https://www.softwareag.com/en_corporate/resources/process-management/ar/risk-resilience-management.html?utm_source=google&utm_medium=cpc&utm_campaign=bt_aris&utm_region=hq&utm_subcampaign=stg-1&utm_content=stg-1_wp_360-visibility-risk-resilience-mgmt&gad_source=1&gclid=Cj0KCQiAi_G5BhDXARIsAN5SX7o633nCPSamx1rf2Y2pfj3obByU2SmbcnCHSLmGQBCA-nTNoz03PAaAoOdEALw_wcB)
- I.T.Toolkit.com. (2021) Assumptions, Dependencies, and Constraints for NPO Website Development. [online]. Available at: <https://www.ittoolkit.com/articles/project-assumptions>
- Atlassian.com. (2023) Agile Project management. [online]. Available at: <https://www.atlassian.com/agile/project-management/scrum-board>
- Perforce.com. (2024) SRS document requirements. [online]. Available at: <https://www.perforce.com/blog/alm/how-write-software-requirements-specification-srs-document>
- Ironhack.com. (2023) Role of Devops in Web development. [online] Available at: <https://www.ironhack.com/gb/blog/the-role-of-devops-in-web-development>
- CicleCi.com. (2024) Benefits of CircleCI.[online] Available at: <https://circleci.com/docs/benefits-of-circleci/>
- Codefinity.com. (2023) Introduction into version control Git and Github. [online] Available at: [https://codefinity.com/courses/v2/7533d91f-0a23-44a3-afc7-c84d5072e189/5aa6942a-dab9-4c0a-a3c4-4e21b6f8fd1b/71c9e8e7-0199-40d8-808c-b13538702193?utm\\_source=google&utm\\_medium=cpc&utm\\_campaign=21193856569&utm\\_content=&utm\\_term=&dki=&gad\\_source=1&gclid=Cj0KCQiAi\\_G5BhDXARIsAN5SX7p\\_gSRf8EMKjcjOfeUT5NPCDNsRPGVmT94w45DPrIMQ1-JtfUsMPWMaApKZEALw\\_wcB](https://codefinity.com/courses/v2/7533d91f-0a23-44a3-afc7-c84d5072e189/5aa6942a-dab9-4c0a-a3c4-4e21b6f8fd1b/71c9e8e7-0199-40d8-808c-b13538702193?utm_source=google&utm_medium=cpc&utm_campaign=21193856569&utm_content=&utm_term=&dki=&gad_source=1&gclid=Cj0KCQiAi_G5BhDXARIsAN5SX7p_gSRf8EMKjcjOfeUT5NPCDNsRPGVmT94w45DPrIMQ1-JtfUsMPWMaApKZEALw_wcB)

Web Design (Original):

[https://www.canva.com/design/DAF9H8TlLXc/F\\_F3jgitqrHQEMq9LilWA/edit?utm\\_content=DAF9H8TlLXc&utm\\_campaign=designshare&utm\\_medium=link2&utm\\_source=sharebutton](https://www.canva.com/design/DAF9H8TlLXc/F_F3jgitqrHQEMq9LilWA/edit?utm_content=DAF9H8TlLXc&utm_campaign=designshare&utm_medium=link2&utm_source=sharebutton)

Presentation

[https://www.canva.com/design/DAGUXcxL9K0/gxYD6sGim6zLWxTbCaVBSQ/edit?utm\\_content=DAGUXcxL9K0&utm\\_campaign=designshare&utm\\_medium=link2&utm\\_source=sharebutton](https://www.canva.com/design/DAGUXcxL9K0/gxYD6sGim6zLWxTbCaVBSQ/edit?utm_content=DAGUXcxL9K0&utm_campaign=designshare&utm_medium=link2&utm_source=sharebutton)

Pamphlets [https://www.canva.com/design/DAGWvdF9GtE/RDxjthH9GqgOyyQ-Y93C0A/edit?utm\\_content=DAGWvdF9GtE&utm\\_campaign=designshare&utm\\_medium=link2&utm\\_source=sharebutton](https://www.canva.com/design/DAGWvdF9GtE/RDxjthH9GqgOyyQ-Y93C0A/edit?utm_content=DAGWvdF9GtE&utm_campaign=designshare&utm_medium=link2&utm_source=sharebutton)