

Faculty Name: Information Technology

Module Code: ITPJA3-34 Module Name: Project

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Project Title	Project Proposal: VAHSA
Submission Date	16 August 2024

1.1 Introduction

The Name of the Client

The client's name is Dr. Xolani Osborne Mnyandu.

Where Client is Based

The client is based in the Precincts of Midrand.

Client Background

The client has qualifications in medical and surgical specialties with 15 years of experience in the corporate healthcare industry. The client further has experience in operational management and back-office systems. His knowledge is not limited to trackable ambits and spans into economics. medicolegal and business operations, and lastly, he is the Managing Director of a company called (VAHSA), Value Added Healthcare South Africa (Pty) Ltd.

Motivation for the Project

The client's experience in the corporate sector has highlighted significant issues faced by doctors and healthcare professionals in private business regarding billing, particularly with payment of claims relating to their services. These challenges often result in healthcare practitioners not receiving payments or being partially paid for services rendered at their practices and in hospital facilities. The bulk of their payment is generated from medical aid schemes. Additionally, there are medico-legal concerns where healthcare practitioners are accused of fraud, abuse, and suspicion of wasteful use of services (providing services deemed unnecessary).

Definitions and Acronyms

VAHSA	Value Added Healthcare South Africa (Pty) Ltd
Clinical Codes	Clinical codes are used by healthcare providers to claim money for services they have rendered.
Medico-Legal payments	The combination of medicine and law in the healthcare sector entails medical events that warrant legal attention and may result in healthcare professionals being subjected to legal processes.
WCAG	Web Content Accessibility Standards

Project Overview

Client Needs

Value Added Healthcare South Africa (Pty) Ltd needs a web application that:

- Allows the automation of clinical code transactions, medicolegal payments, and training courses.
- Allow Value Added Healthcare South Africa (Pty) Ltd. to have a national reach
- Modernize administration functions from manual to automatic
- Improve operating efficiency and reduce costs of labor

Scope

This project aims to create a comprehensive web platform for VAHSA. The scope encompasses developing a functional, user-friendly website designed to optimize VAHSA's operations, enhance visibility, and expand its reach on a national level. Key objectives include:

- Automating clinical code fees, medicolegal payments, and training courses;
- Creating a training course listing with course details and price;
- Ensuring secure login and administrative functions;
- Implementing reports and analytics capabilities for transactions and training.

Project Value

The project aims to create a comprehensive web application for Value Added Health South Africa (Pty) Ltd. The scope covers the development of an efficient, user-friendly website that is made to improve operations and visibility to allow VAHSA to accrue more clients through expansion on a national scale. The Website will:

- Improve VAHSA's business operations;
- Allow VASHA to be accessed by more clients throughout South Africa;
- Improve profits and engagement with clients;
- Lastly, improve data security and compliance with regulatory rules.

Intended Use

The Website will Have functions based on the role of its users, including:

- Healthcare professionals (doctors, radiographers, physiotherapists, and others in private practice): will have access to training dates, and courses, lodge medical billing and clinical coding queries, request medico-legal appointments, and make services & consultation payments and tracking of transactions.
- Administrators: manage training course listings, bookings, price management and increment or decrement, and processing of payments.
- Clients: Will book training courses, Clinical Codes Query, and Make Medicolegal Payments.

The Website will have a modern, simple-to-navigate User Interface that is compatible with all devices, the website will have robust security such as secure registration, secure logging, and modernized Data handling capabilities that have been automated.

1.2 Needs/Problems

Opportunity: The opportunity lies in creating a comprehensive web platform for VAHSA that automates payments and bookings, improves visibility, streamlines administrative functions, and enhances overall operational efficiency. This platform aims to address several key operational challenges faced by VAHSA, ultimately increasing profitability and client engagement while ensuring compliance with regulatory requirements and robust data security.

Needs/Problems to be Addressed:

Problem 1: Lack of a Convenient Payment System

VAHSA doesn't have an efficient payment system that allows the payment process and rendering of services to be efficient. This results in:

- Services not being rendered until payment is received;
- Customers must make time to visit offices which becomes an inconvenience in their day-today activities;
- Manual payment processing requires a lot of effort from staff which results in high operational costs.

Problem 2: Manual Administration

Currently, VAHSA uses manual processing for user registration, service booking, and payment tracking. VAHSA uses many platforms like WhatsApp, Gmail, email, and Messenger to cater to customers resulting in data being scattered. This results in an increased risk of data loss or theft, inconsistent communication, and an administrative burden in terms of record keeping.

Problem 3: Lack of Visibility

VAHSA uses the traditional approach to advertise and look for customers by placing pamphlets in hospitals; This approach limits the visibility of VAHSA due to not having an online presence. Healthcare professionals are geographically restricted to the hospitals they work in, This limits their ability to access VAHSA and query their problems. VAHSA does not have an online presence which results in not reaching doctors outside VAHSA's Immediate geographic area.

Problem 4: Medicolegal Payments and Accusations

Health care practitioners often face accusations of fraud, abuses of resources, and wasteful services, these accusations originate from discrepancies in billing practices of claims and clinical codes (fraudulent codes) misunderstandings of related medical codes, and lack of advanced knowledge in the medico-legal aspects in the Health care Sector. This results in healthcare professionals facing:

- Reputational Damage
- Unemployment
- and unable to defend themselves even if they are guilty or not guilty.

Problem 5: Lack of training on the use of clinical codes

Clinical codes are codes used by the doctor after they have treated their patient. These codes are used to make claims by doctors for the services they have rendered to patients. Healthcare professionals lack the necessary training to use clinical codes, specifically those that are start-up healthcare professionals. This results in the following problems:

- Doctors may use wrong codes or wrong applications of codes to patients leading to errors in the documentation of the care they have provided.
- Medical aids and insurance Companies deny payments due to incorrect clinical codes or codes that are incomplete.

Medical aid and insurance companies denying payment to doctors for their services despite the care they have provided to the patients results in losses that many doctors face as they do not use the clinical code

Target Population:

- Doctors and Healthcare Professionals: Need access to efficient training, claims management, and transaction tracking.
- **Administrators:** Require streamlined tools for managing service listings, bookings, pricing, and payment processing.
- Clients: Seek convenient booking, payment options, and interaction capabilities for training courses and queries.

1.3 Goals and Objectives

- The purpose of the platform is to mostly improve VAHSA's (Value Added Healthcare South Africa (Pty) Ltd)efficiency and improve its expansion health sector.
- With the use of automation and a safe online payment gateway, the aim is to reduce inperson transactions, which should lower the chance of financial mix-ups.

- The system within the platform will administratively make tasks easier by developing a system that will cohesively bring together customer registrations, service bookings, and payment tracking.
- Thus, making sure that the manual workload is decreased, accuracy is enhanced, and service delivery. Their reputation and practice will be preserved with the usage of this strategy.
- Lastly, the platform will place a great deal of importance on data protection and compliance.

User data will be protected and managed in compliance with stringent legal requirements. This dedication to security preserves the confidentiality of sensitive data and fosters confidence among all parties involved. It further strengthens VAHSA's standing as a trustworthy and creative company.

1.4 Procedures and Scope of Work

Procedures

The following procedures will take place in the development of the VAHSA's (Value-added Health South Africa (Pty) Ltd.) web application, this will use the System Development Life Cycle

1. Planning & Analysis

o **Gathering requirements:** through communication and meetings, collaborate with the Client and stakeholders to gather requirements, and data for the project to start.

2. Design:

- System design: create comprehensive designs that outline the system architecture, user interface, and database design, further Diagrams will be made according to the Template requirements such as the extended entity relationship diagram.
- User interface / User experience design: Create wireframes and prototypes for the design of the user interface. Ensure that the design is modern, intuitive, and friendly to the users.

3. Development, (Documentation and Implementation)

- Back-end Development: Develop functionalities such as payment processing, booking, admin controls and authentication, and other functionalities that work in the background.
- Front-end Development: integrate the backend functionality and create the user interface, making sure the design is white-blue Modern Design.
- o **Security:** Ensure that a robust authentication is achieved with stringent.

4. Testing

- o **Component testing:** throughout the project, the functions of all components will be tested and improved.
- Integrated component testing: ensure that all functionalities work together and are efficient.

 User Testing: communicate with the client to test out the system in a real-world environment and gather feedback, this will allow data to be gathered for improvements. This will be done after the project is deployed.

5. Implementation

- Hosting: Deploy the website using a paid Host with proper SSL Encryption to secure the Website.
- User manuals: Create User manuals on how the website is used and actions of what to do and what not to do.

6. Maintenance:

- NB this section is for the future if the client will need or hire other Professionals to Patch the website
- Patching: Provide updates, improve security, to System Health Check-ups to improve the website.

1.4.1 System Requirements and Functional Requirements System Requirement

The Web application must fulfill the following systems requirements:

- **User Authentication:** Secure Registration process with stringent Password and email requirements, Secure login with email Two-factor Authentication through the utilization of back-end PHP.
- Password recovery: admin and client pages must have password recovery functions
- Payment processing: This is achieved by automating various payment types such as Clinical Codes Query fees, Medicolegal Payments, and training fees.
- Administration management: Functions for managing service listing and payment processing for the training courses.
- Regulatory Compliance: adherence to regulatory compliance is required, this will also include data privacy policies and rules to prevent breaches from occurring to the Web Application.
- **Compatibility:** The Web Application should be compatible and have a modern and easy-to-navigate user interface.
- Analytics and reporting: there should be analytics and report functionalities that will show
 the number of website visitors, bar charts, and other charts of the number of users, profits,
 and losses that will allow the admin to make further Adjustments to courses where
 Necessary.

Further pages and functionalities can be added once the main requirements are achieved, these functionalities can include:

 Chat Bot ● Gamification ● And any functions we may add to further perfect the web application

Functional Requirements

If/Then Behaviours

• If a User Fails to log in, **THEN** the user must proceed with password recovery by clicking forgot password.

- If Payment is successful THEN an email notification containing invoice and payment information will be sent to the user.
- If the Appointment is successful **THEN** an email notification containing the appointment date, venue, times, cost, and details is given. (Medico-Legal Payment)

Logic of Data Handling

- Data will be stored in a database and it will be hashed, for example, User data, Booking data, and Transaction details data.
- The processing, recording, and retrieving (downloading) payment transaction data for logs to audit them. This means that transactions and any processes in the database, such as booking, can be retrieved and downloaded by the admin for auditing processes.

System Work-Flows

- Registration of users: the user will create an account, which is stored in the database. Upon
 successful registration, the user is taken to a log-in page where they will log in, and the
 system will verify the authenticity of the login details. Upon successful verification, the user
 is taken to the home page.
- Booking a training course: The user will select the course, do the payment process, and upon successful payment, the user will receive booking details.
- Clinical Codes Query: the users (doctors) can pay their Clinical Codes Query fee, and receive an invoice of successful payment.
- Medicolegal Payments: payments are to be made based on conditions such as the type of doctor and other conditions. Further information will be provided once the client provides information.
- Administration: default login, update login details, manage training courses, manage clinical code Query, manage Medicolegal payments, manage bookings, and write a blog.
- **Chat Bot:** A bot that will assist frequent issues that occur with specified questionnaires and answers that a user may want to ask (can be added if main functionalities are achieved).

Handling of Transactions

- Handling the Clinical Codes Query fee of R500.00 per code.
- Handling the medicolegal payments; the fee of these payments is affected by the conditions the user specifies.
- Handling the processing of the training course fee with a price of R3 850,00 based on the Consumer Price Index.

Administrative Functionalities

- Administrators can update training listings, prices of Clinical Codes Query, and medicolegal payments.
- Administrations can track transactions and retrieve transactions from the database for auditing purposes.

• Web Analytics that will provide visual reports for the number of visitors, number of payments made, profits made, and recent activities.

Compliance and Privacy Policies

- The system should be used with strict rules and regulations to ensure data safety.
- Privacy policies will be put in place to ensure that no data breaches are made due to Social engineering.
- Maintaining an audit trail for all users so that it can be accessed and used where necessary in terms of legal issues.

Performance

- The web application must be able to handle multiple log-ins from multiple users without crashing or resulting in a self-made distributed denial of service attack.
- Processes such as payments and booking should be done quickly and efficiently with proper responses based on specific.

Operations conducted on every page/screen

- User Authentication: This operation includes pages and functionalities such as registration, login, logout, and password recovery (this will include email verification, reset codes, and changing passwords).
- **Home Page:** A home page with links and a basic summary of services, bookings, payments, contacts, about info on VAHSA, Header, and Footer is a must, and lastly the Profile Page
- **Training Courses:** This will provide a list of available courses, applying for the course, and paying for the course.
- Clinical Codes Query payment, this operation includes input claims details which will be
 used in the process of paying a Clinical Codes Query fee, it will further display the
 confirmation of payment and an Invoice received by email.
- Medicolegal Payment Page: This page will have the required input fields, a calculation function based on provided conditions, process payment, confirmation of payment, and email invoice.
- Chat Bot page: The operations include automated responses to issues that users face and automated remedies to common issues with the web application. (this depends if we have time to implement a chatbot)
- Privacy Policy Page, terms and conditions pages: these pages will provide information on the use of the Web Applications so that it is used effectively and securely
- Administration Panel, manage training courses and prices, Clinical Codes Query history, medicolegal payment history, download and retrieve statements from the database for auditing, Web Analytics with graphs that provide visual information on payments, website visitors, profits, and visual information that we may add if we deem them necessary.

1.4.2 External Interface Requirements

User Interfaces

- Content Presentation: A modern, detailed, and easy-to-navigate user interface with a color scheme of blue and white.
- Application Navigation: Intuitive navigation that guides users through registration, login, booking, and payment processes.
- User Assistance: Embedded user assistance features, such as tooltips, FAQs, and a support section to help users (Chat Bot).

Hardware Interfaces

- Supported Device Types: The web application will be compatible with Windows 11 and any devices that have internet access, including laptops, tablets, and smartphones.
- Communication Protocols: The application will utilize standard internet communication protocols (HTTP/HTTPS) to ensure seamless interaction between devices and servers.
- Operating Systems: The web application will be compatible with major operating systems, including Windows, macOS, iOS, and Android.

Software Interfaces

- Databases: Integration with a robust database system to store and retrieve user information, transaction details, and audit logs.
- Libraries: Utilization of secure and efficient libraries for handling payments, user authentication, and data encryption.
- Operating Systems: The web application will be compatible with major operating systems, including Windows, macOS, iOS, and Android.

Communication Interfaces

- Email Notifications: Automated email notifications for users registered in the database, covering events such as registration, booking confirmations, payment receipts, and training reminders.
- Embedded Forms: Secure and user-friendly forms for logging in, registering, booking services, and processing payments.

Embedded Systems

- Screen Layouts: Consistent and responsive screen layouts that adapt to different device sizes and orientations.
- Button Functions: Clear and functional button designs that guide users through various tasks, such as submitting forms, making payments, and navigating the site.
- Dependency on Other Systems: The web application will depend on external payment gateways for processing transactions and third-party email services for sending notifications

1.4.3 Non-Functional requirements

Proposed security measures for VAHSA to safeguard user information include:

1. Two-Factor Authentication (2FA): The VAHSA platform will make use of email-based two-factor authentication that is intended to enhance and strengthen security during the user login

processes; hence, it requires users to verify their identity by entering a unique, time-sensitive code that is sent to their registered email address after entering their password.

- This added layer of security will significantly reduce the risk of unauthorized access, making sure that user accounts and sensitive information are both protected, and it ensures that requests made are genuinely coming from the correct person who initiated them.
- to ensure efficient performance The 2FA code must be delivered to the user's email within seconds of the login attempt, and it will only be valid for three minutes.
- **2. Password recovery:** if the user forgets their password The VAHSA platform will securely allow users to reset their passwords. Users will first initiate password recovery by providing their registered email address.
 - The platform will send a unique, time-sensitive recovery link to the registered email address that must be used within 15 minutes.
 - After clicking on the recovery link, the users will be directed to a page where they can create a new password.
 - This stage ensures that only authorized users can access their accounts, therefore maintaining user data integrity.
- **3. encryption:** we will use SSL/TLS protocols to encrypt all data transmitted between the VAHSA platform and users. This makes sure that sensitive information like login credentials, two-factor authentication codes, and password recovery links are protected from unauthorized access during transmission.

Storage requirements: The platform will initially store and manage data using a relational database management system (RDBMS). Like MySQL with enough sufficient storage capacity, this database will be used to hold user data, transaction records, training session details, audit logs, and so on.

• The system will use indexing to improve query performance and allow fast retrieval of data.

Scalability: As the number of users increases, the architecture of the system will be designed to facilitate horizontal scaling of the database to accommodate increasing loads and data.

The system will be able to handle situations that involve high demand or peak usage, such as when many users access the system simultaneously while booking services and so on.

Data Integrity: The VAHSA system will routinely check for data accuracy as well as consistently keep records of any changes made. Backup systems will be put in place to prevent data loss, and for easy restoration of data, a secure storage for backups will be created.

Compatibility requirements: The website will be developed using responsive web design methods, ensuring compatibility across various devices, including computers, tablets, and smartphones.

The system will be evaluated/tested on major OS systems, including Windows, macOS, iOS, and Android, thereby ensuring consistency across all environments.

Reporting and Analytical Tools: The platform will track user interactions, traffic trends, and system performance by combining analytics tools such as Google Analytics or custom dashboard solutions.

These tools will produce detailed reports and visual graphs that provide information on system usage in general, engagement metrics, and user activity. A data-driven approach helps the platform remain continually scalable and adaptable depending on user needs and trends.

Maintainability: Modular Code Structure: The codebase will be made to be modular, hence allowing for easy updates and maintenance of individual components without really affecting the entire system.

Documentation and Training: Site administrators will receive thorough training, so they have the tools required to manage, update, and maintain the platform.

Comprehensive user manuals and access to support resources will be provided to make sure administrators can respond to constantly changing corporate needs, therefore keeping the platform up to date and in line with VAHSA's operational objectives.

Usability: The platform will have a simple, easy-to-use design with straightforward navigation paths and clear labeling, therefore reducing the learning curve for new users.

Accessibility: To ensure that all users, including those with disabilities, can make effective use of the platform, efforts will be made to conform to international accessibility standards like WCAG The platform will include key accessibility features like images for text. This reduces frustration and the need for support, enabling users to execute activities easily and independently, thereby enhancing user accessibility.

User satisfaction: The design will include industry-related imagery, suitable color schemes, iconography, and aspects that are relevant to healthcare professionals. The advantage is that it provides a professional and captivating experience catered to the target audience, building trust and encouraging ongoing usage of the platform, further enhancing user satisfaction.

Feedback Mechanisms: User Feedback: mechanisms that allow users to provide feedback will be part of the platform, therefore facilitating continuous improvement based on the user's needs and experiences.

1.4.4 Third Party Integrations

In this project, we will use the following third-party software and gateways:

Payfast

- A South African payment gateway that allows businesses to accept payments online. Payfast supports a lot of payment methods, such as debit cards, instant EFTS, and other payments, and supports most of the banks used in South Africa.
- Payfast is mostly used for e-commerce transactions and other transactions such as donations and subscriptions. Payfast has secure, real-time processing.

Ozow

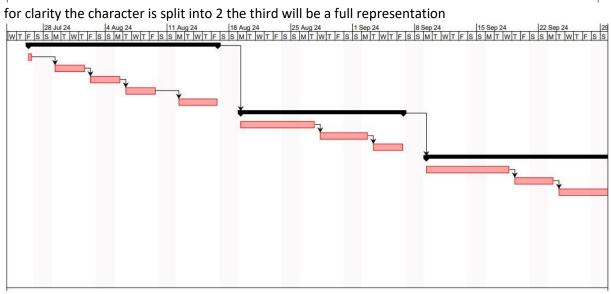
- Ozow is another South African payment gateway that allows:
 - **o** Instant EFTS; **o** Customers to directly from their banks using online banking details.
- Ozow supports all major South African banks and offers fast, secure, and seamless transactions.
- It is easier to integrate e-commerce and mobile apps.

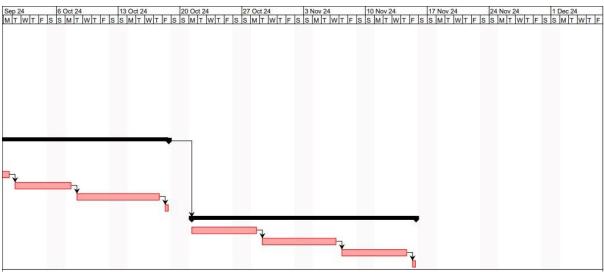
1.5 Time Table

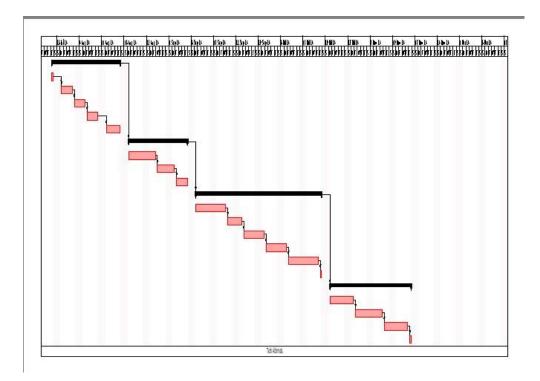
	Description of Work	Start and End Date	
Deliverable 1	Project Proposal	26 July – 16 August	
	Client Meeting	26 July – 26 July	
	Data gathering	27 July – 1 August	
	project proposal formulation	2 August – 5 August	
	Visual Representation	6 August – 10 August	
	Proposal submission	16 August 2024	
Deliverable 2	Documentation and Coding	17 August 2024 – 6 September 2024	
	Diagramming (design)	17 August 2024 - 27 August 2024	
	Prototyping the design	29 August 2024 - 2 September 2024	
	coding	3 September 2024 - 6 September 2024	
Deliverable 3	Presentation	6 September 2024- 18 October 2024	
	development and coding	9 September 2024 -16 September 2024	
	Deployment	19 September 2024-23 September 2024	
	User manual	24 September 2024-30 September 202	
	testing	1 October 2024 - 7 October 2024	
	Consolidation	8 October 2024 - 17 October 2024	
	Presentation Submission	18 October 2024	
Deliverable 4	Final Presentation	21 October 2024 - 15 November 2024	
	update deliverables 1 to 3	21 October 2024 - 28 October 2024	
	update user manual	29 October 2024 - 6 November 2024	
	Practice presenting	7 November 2024 - 14 November 202 4	
	Final Project Submission	15 November	

Gantt Chart

	0	Name	Duration	Start	Finish	Predecessors	Resource Names
1		Deliverable 1:Project Proposal	16 days?	2024/07/26 8:00 AM	2024/08/16 5:00 PM		
2		Client Meeting	1 day?	2024/07/26 8:00 AM	2024/07/26 5:00 PM		
3	8	Data Gathering	4 days?	2024/07/29 8:00 AM	2024/08/01 5:00 PM	2	
4	8	Project Proposal Furnaltion	2 days?	2024/08/02 8:00 AM	2024/08/05 5:00 PM	3	
5	6	Visual Representation	4 days?	2024/08/06 8:00 AM	2024/08/09 5:00 PM	4	
6	6	Proposal Submission	5 days?	2024/08/12 8:00 AM	2024/08/16 5:00 PM	5	
7	Ö	Deliverable 2: Documentation and	15 days?	2024/08/19 8:00 AM	2024/09/06 5:00 PM	1	
8	8	diagramming	7 days?	2024/08/19 8:00 AM	2024/08/27 5:00 PM		
9	6	prototyping	4 days?	2024/08/28 8:00 AM	2024/09/02 5:00 PM	8	
10	ö	coding (initial)	4 days?	2024/09/03 8:00 AM	2024/09/06 5:00 PM	9	
11	6	Deliverable 3: Presentation	30 days?	2024/09/09 8:00 AM	2024/10/18 5:00 PM	7	
12	N. S. S. S.	Development and coding	8 days?	2024/09/09 8:00 AM	2024/09/18 5:00 PM		
13	ö	deployment	3 days?	2024/09/19 8:00 AM	2024/09/23 5:00 PM	12	
14	Ö	User Manual	5 days?	2024/09/24 8:00 AM	2024/09/30 5:00 PM	13	
15	ö	Testing	5 days?	2024/10/01 8:00 AM	2024/10/07 5:00 PM	14	
16	Ö	Consolidation	8 days?	2024/10/08 8:00 AM	2024/10/17 5:00 PM	15	
17	Ö	Presentation Submission	1 day?	2024/10/18 8:00 AM	2024/10/18 5:00 PM	16	
18	8	Deliverable 4:Final Presentation	20 days?	2024/10/21 8:00 AM	2024/11/15 5:00 PM	11	
19		Deliverable Update (1-3)	6 days?	2024/10/21 8:00 AM	2024/10/28 5:00 PM		
20	Ö	update user manual	7 days?	2024/10/29 8:00 AM	2024/11/06 5:00 PM	19	
21	ö	Practice Presenting	6 days?	2024/11/07 8:00 AM	2024/11/14 5:00 PM	20	
22	6	Final project Submission	1 day?	2024/11/15 8:00 AM	2024/11/15 5:00 PM	21	







1.6 Budget

Description of Work	Estimated			
	Cost (R)			
Deliverable 1: Project Proposal				
Task 1.1:	R 0			
Client interview for data gathering				
Task 1.2: Requirements Analysis:	R400.00			
Research and analysis on needs and problems including functional requirements and non-functional requirements.				
Deliverable 2: Documentation and Coding				
Task 2.1: Design Phase (UI/UX Design Tools)	R400.00			
This requires subscription to premium services of prototyping tools, and diagramming tools like Microsoft Visio and Figma.				
Task 2.2: Coding Phase	R0 (Open			
	Source)			
Task 2.3: Web Hosting and Domain Registration	R300.00			
Task 2.4: SSL Certificate for Secure Transactions	R400.00			
Task 2.7: Payment Gateway integration (2 Gateways)	R450.00			
Other Expenses				
Microsoft Teams' subscription	R800.00			
Project Management Expense	R1500.00			
Project Management Tools (e.g., Trello, Asana)	R150.00			
Calls, Internet, etc.	R250.00			
UX Designers (1)	R1500.00			

Front End Developer (2)	R3000.00
Back End Developers (2)	R3000.00
Total Budget	R12,150.00

1.7 Key Personnel

Stakeholders	Name [and Company]	Contact Details		
Client	Doctor Xolani Osborne Mynandu	073 922 1860		
Sponsor	-	-		
Project Manager Kondwani Tshuma		061 483 7013		
Team				
Name	Surname	Contact Details		
Kondwani	Tshuma	061 483 7013		
Boitumelo	Tshoenyane	081 075 3808		
Aisha	Mohamed	081 077 8616		
Liezelle	Mmako	067 029 8179		
Bafokeng	Molisana	067 022 9410		

1.8 Conclusion

The key operational issues such as Manual Payment processes, limited Visibility, inefficient administration, and general operational efficiencies will be fixed by the Proposal of a Comprehensive web application for VAHSA. This Project Aims to automate VAHSA, increase operational efficiency, increase profits, and Allow VAHSA to be nationally exposed, this exposure will allow VAHSA to have more clients in the Health and Medicine Sector of the economy thereby having more Profits and help Doctors who face issues in terms of clinical coding fees, medicolegal payments and issues that they do not understand. The Web application will therefore be scalable, secure, and easy to use which will allow VAHSA to improve its performance and reach.

1.9 Sign-off Project Client Dr. Xolani Osborne Mnyandu Date 16 August 2024 Signature Signature Project Manager Kondwani Tshuma Date 16 August 2024 Signature Signature