# DEDICATION

ACKNOWLEDGEMENT

SUMMARY

LIST OF TABLES

GLOSSARY

ABSTRACT

RESUME

GENERAL INTRODUCTION

PART I

INSERTION PHASE

Preface

This Phase involves the discovery and integration into our working environment. This part presents our welcoming and integration into the enterprise and introduces us to the enterprise where our internship was carried out. It also considers the presentation of the administrative and functional organisation, its missions, geographical location, and company resources, a brief presentation of the project, and a conclusion.

Contents

INTRODUCTION

1. WELCOME AND INTEGRATION INTO REALIZE
2. GENERAL PRESENTATION OF REALIZE
3. ADMINISTRATIVE AND FUNCTIONAL ORGANISATION OF REALIZE
4. HARDWARE AND SOFTWARE RESOURCES OF THE COMPANY
5. BRIEF PRESENTATION OF THE PROJECT THEME

CONCLUSION

INTRODUCTION

At the early stage of an internship, interns are filled with excitement and anxiety trying to feel, connect and know well their environment and the people in it. This is the moment were interns get to know other interns, get in touch with other employees in or out of their department and so on. This experience is very unique to each intern, and we express ours in this part.

1. WELCOMING AND INTEGRATION INTO REALIZE

The short period where a student gains knowledge and the opportunity to acquire working experience concerning a particular field in a specific enterprise is very crucial in the life of a student. REALIZE been the enterprise, granted us the privilege to access the opportunity to experience a line of work for our career paths.

Upon arrival at REALIZE on Monday, 1st July 2024 at 8:00 am, we were warmly welcomed by the Frontend Developer, Mr Tanue Monette Bukwati, who gave us an overview of the company's programming languages, work hours, and guidelines, presented all the departments that constitute the company and their functions and finally introduced us to our workspace.

A few hours later, we had an orientation session where each of us was invited to discuss our potential internship themes, and those without a theme were encouraged to research to identify suitable internship or project themes. It all ended with the enterprise's rules and regulations being emphasized audibly.

1. GENERAL PRESENTATION OF REALIZE
2. History

Realize is a Cameroon-based private tech start-up institute founded by Ndelogakeh Daniel in 2022. This institute specializes in providing IT solutions and promoting the adoption of new technologies in Cameroon

1. Mission

The mission of REALIZE mainly relates to the empowerment and the perpetuation of Technology use.

They are dedicated to empowering and advancing technology through their missions:

* Designing and developing mobile-oriented software for companies and individuals.
* Supporting start-ups for rapid growth using computer sciences.
* Providing training and certifications to enhance skilled human resources across various fields of study.
* Contributing actively to global sustainable development through innovative solutions and virtual reality.

1. Vision

Realize envisions unlocking the true potential of every organization and individual through the seamless integration of analysis, development, realization, and data analytics. This vision propels Realize to make a significant impact on the digital landscape, shaping a future where innovation knows no bounds

1. Activities

The activities of Realize span across computer sciences, engineering, and training, which encompass a group of interconnected activities such as:

* Conception realization, and hosting of websites.
* Software development and maintenance.
* Training in Software related fields.
* Conception and realization of multimedia.
* IT consulting and innovation.
* IT support.

1. GEOGRAPHICAL LOCATION

REALIZE is located in the Centre Region Yaoundé at Vallée Ahmadou, just a few miles from Carrefour Ahmadou. It can be easily located with a Red Marker on the localization plan below.



Figure 1: Geo Localisation of REALIZE

1. ADMINISTRATIVE AND FUNCTIONAL ORGANIZATION OF REALIZE
2. Administrative Organization of REALIZE

Understanding how each department within an enterprise works and what they contribute to its success can help expand both enterprise integration and knowledge. REALIZE is organised as follows:

a. General Management

It is in charge of managing the day-to-day operations of the enterprise. It has as mission:

* To draft the comprehensive work plan, summary, and report documents;
* To comprehensively coordinate the daily administrative affairs management and the various departments of the enterprise;
* Managing the enterprise infrastructure;

b. Communication Department

They have as responsibilities:

* Multimedia communication and marketing;
* Management of cultural affairs;

c. HR Department

This department is responsible for

* They are in charge of managing employees according to the employee attendance policy;
* Recruitments;

d. Software Engineering Department

This is the department to which all the interns were assigned.

This department is in charge of the following:

* Conception and Realization of programming services;
* Evaluation and Realization of projects;

e. Department of Financial Affairs

This department is in charge of Financial Accounting and Taxation.

f. Certification and Training Department

This department is in charge of:

* managing the different Training programs and projects;
* Training and issuing certificates after training;

g. Technical Department

This department is in charge of:

* Innovation;
* Maintenance;
* Telecommunication and Networking;

1. Organisation Chart Of REALIZE

Below is the Organisational Chart of REALIZE

Figure 2:Organization Chart of REALIZE

IV. HARDWARE AND SOFTWARE RESOURCES OF REALIZE

1. HARDWARE RESOURCES

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
|  | Designation | Quantity | Characteristics | Observation |
| 1 | MacBook Pro | 1 | APPLE | Good |
| 2 | Modem | 1 | CAMTEL | Good |
| 3 | LCD Screen | 1 | HP | Excellent |
| 4 | Training equipment and office furniture | / | / | / |

Table 1:Hardware Resources found at REALIZE

1. SOFTWARE RESOURCES

Table 2: Software resources found at REALIZE

|  |  |
| --- | --- |
| Designation | Software |
| Operating system | Windows 10, Mac OS, parrot Linux |
| Design tools | Photoshop |
| Integrated Development Environment (IDE) | Visual studio code, |
| Text Editor | Sublime text, notepad++ |
| Database Management system (DBMS) | MongoDB, PostgreSQL, MySQL |
| Web browser | Google Chrome, Microsoft Edge |
| Document editor | Microsoft office word |
| Presentation | Microsoft Office PowerPoint |

7. BRIEF PRESENTATION OF PROJECT

Cameroon’s cooking gas market has recently undergone a significant transformation. Seven brands of domestic gas are now available, each vying for market share through persuasive ads in newspapers, on radio and TV, and billboards. Despite these changes, the market still faces several challenges, particularly affecting domestic vendors and clients.

To address these challenges, we propose a project titled: **"COMPUTERISED MANAGEMENT OF A GAS RETAIL BUSINESS."** This project aims to develop a Mobile Application. It aims to automate, streamline, and monitor the gas distribution process, ensuring robustness, security, efficiency, and integrity in the gas market sector, especially benefiting buyers and vendors of domestic gas.

CONCLUSION

In general, insertion plays a vital role in the internship life cycle of a student as it possesses the student with a spirit of collaboration. To us, it was fabulous, enthusiastic, and fluid with countless workers including our professional supervisor. Next, we have the Existing System.

PART II

EXISTING SYSTEM

Preface

This document provides a complete description of our project, covering what it should and should not do, how it should look, what it can and cannot handle, and how it will store data. This document serves as a guide for the development process.

Contents

INTRODUCTION

1. Presentation of the project theme
2. Study of the existing system
3. Criticism of the existing system
4. Problematics
5. Proposed solutions

CONCLUSION

INTRODUCTION

We initiate our exploration by delving deep into the existing system. This serves a dual purpose: recognizing its merits and equally importantly, identifying areas where it falls short. By casting a critical eye, we don’t just identify problems; we open doors to potential improvements and innovative solutions. This section will articulate challenges, discrepancies, and the gaps we aim to bridge.

CONCLUSION

In this phase we were to present the existing system and see their down fall and proposed a solution that helps to bridge the gap in the society that is faced by Cameroonian population and through these we are now going forth to the specification book.

PART III

SPECIFICATION BOOK

**PREAMBLE**

This document outlines the comprehensive specifications for our project, detailing functional and non-functional requirements, UI design, system limitation, and database structures serving as the development guide.

**CONTENT**

INTRODUCTION

1. CONTEXT AND JUSTIFICATION
2. OBJECTIVES
3. EXPRESSION OF NEEDS
4. PLANNING OF THE PROJECT
5. ESTIMATION OF THE PROJECT
6. CONSTRAINTS
7. DELIVERABLES

CONCLUSION

## INTRODUCTION

The specification book sets the foundation for understanding the software project at hand. It provides an overarching summary of the software’s purpose, the scope of its functionality and the specific objectives it aims to achieve. It also lays out the intended audience of the software, any assumptions or prerequisites for its use, and the strategic approach to its development. Following this, the specification book delves deeper into the intricate details of the software, covering aspects like functional and non-functional requirements, system limitations and constraints, preliminary user interface design, and data structures of database design. In this document, it will serve as a pivotal roadmap guiding the software development process. We will also include project details such as the team involved, constraints, the budget, deadlines, and deliverables.

CONCLUSION

This section was a great step in the accomplishment of the project, and we were expected to clarify the different stakeholders the effectiveness and the use of the application in the market and its necessities by giving a detail structure of how the application will behave and help Cameroonians and give the estimation of the project cost for its realization and date of accomplishment of the project.

PART IV

ANALYSIS PHASE

Preface

The Analysis phase includes the collection of the customer requirements to present a solution

fine-tuned to their needs. The main purpose of this phase is to capture the user’s needs and define processes and prominent methodologies used. This phase includes an Overview of prominent methodologies followed by Justification of methodology choice and finally modelling of the system.

Contents

1. INTRODUCTION

2. PRESENTATION OF ANALYSIS METHOD

3. JUSTIFICATION OF ANALYSIS METHOD

4. SYSTEM MODELING

5. CONCLUSION

INTRODUCTION

Outstanding projects start with an outstanding breadth of view. Like any other multifaceted system, software development calls for dive-deep planning, groundwork, and management, especially, if you have to juggle several processes. Therefore, any good developer worth his salt should be well-versed in the methodologies and choose the one according to the project context and the business requirements.

CONCLUSION

The Analysis phase has enabled us to make an inventory of the functional needs. While sticking to the 2TUP method, we initially enumerate the various choices and needs necessary for our system study and finally describe the interaction between actors, and objects. Next is the Conception Phase where we present the 2 branches of the 2TUP with respect to our system.

PART IV

CONCEPTION PHASE

Preface

The Conception phase is the part which makes it possible to capture the technical needs and establish the design and architecture of our system. It links the realization phase with the analysis phase.

Contents

1. INTRODUCTION

2. TECHNICAL BRANCH

2.1 CAPTURE OF TECHNICAL NEEDS

2.2 GENERIC DESIGN

3. IMPLEMENTATION BRANCH

3.1 PRELIMINARY DESIGN

3.2 DETAILED DESIGN

INTRODUCTION

The capture of the technical needs can be carried out as soon as one knows which materials will be used. Materials include more precisely machines, networks, components etc. At this level, we will examine some diagrams such as class diagrams, package diagram, state machine diagrams etc.

CONCLUSION

We planned the structure and deployment of our system in this chapter. We considered the technical constraints, components, deployment targets, and interactions of our system. This gave us a clear overview of how our system will work and what are the main challenges and opportunities. In the next chapter, we will implement our system using various technologies, tools, and methods. We will also show some examples of the system’s functionalities and performance.

PART V

**REALISATION PHASE**

Preface

In this phase we will to straight forward in the implementation of our solution, we will base

ourselves on the analysis and conception phases.

Contents

1. INTRODUCTION

2. DEPLOYMENT DIAGRAM

3.COMPONENT DIAGRAM

4. PRESENTATION OF DEVELOPMENT TOOLS

5. PRESENTATION OF LANGUAGE USED

6.CONCLUSION

INTRODUCTION

In this project, we aim to develop a system that solves a specific problem or meets a certain need. To achieve this goal, we have followed a series of steps that include analysis, conception, and realization. In the analysis phase, we defined the problem and the requirements of the system. In the conception phase, we designed the architecture and the components of the system. In this report, we will focus on the realization phase, where we will implement our solution using various technologies. We will also explain how we used the entity relational diagram to model the relationship between the entities of our system. This phase is as critical as the previous ones, as it will determine the functionality and performance of our system.

CONCLUSION

Having arrived at the end of our project, we can say with absolute certainty that the internship was extremely beneficial to us. This is because in the course of the internship we faced many challenges hence pushing us to do researches which made us acquire knowledge.

PART VI

FUNCTIONALITY TEST

Preface

The functionality test phase is an important part of the software development life cycle. It aims to verify that the software meets the specified requirements and performs the expected functions. It also helps to identify and fix any functionality-based errors or defects that may affect the user experience or the quality of the software.

Contents

1. INTRODUCTION

2. PRESENTATION TESTING METHOD

3. SYSTEM TESTING

4.CONCLUSION

INTRODUCTION

In these phase we will look at the different testing methods and the System Testing.

PART VII

USER GUIDE

Preface

Once a solution is analysed, conceived, and deployed, it is now necessary to produce a guide for its users. This part of our document concerns the installation of the necessary tools to set up an environment for the platform in local and the user guide.

Contents

# INTRODUCTION

1. INSTALLATION GUIDE
2. USER GUIDE

CONCLUSION

INTRODUCTION

The user manual is the document created after the implementation of a software or platform or application. It answers the questions “how to use the software application or platform that is front of us?”. It is therefore crucial for us to offer the different users of our platform a guide allowing them to easily perform various operation on our platform. To achieve our goals, it will be necessary for us to use FIRE FOX web browser XAMPP SERVER all this will be done in windows 10 operating system.

CONCLUSION

Having put in place the platform, it was not sufficient for we had to produce a manual that will help its various users. That is why we presented the different tools to be installed and how they are to be installed in order to run this application without any problem and how the users will use this platform once the environment is set up.

GENERAL CONCLUSION

BIBLIOGRAPHY

WEBOGRAPHY

TABLE OF CONTENT