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GLOSSARY

* 2TUP: Two Track Unified Process
* AICS : AFRICAN Institute of computer sciences
* APK: Android Package Kit.
* MVC: Model View Controller.
* UML: Unified Modelling Language
* DBMS : Database Management System
* GUI: Graphical User Interface
* IDE: Integrated Development environment
* IPA: iOS App Store Package.
* JSON: JavaScript Object Notation

ABSTRACT

In the digital age, eCommerce has become a critical component of business strategy, enabling companies to reach a global audience and provide customers with convenient access to products and services. This report details the conception and realization of an eCommerce website designed to offer a seamless online shopping experience. The project began with a comprehensive market analysis to identify target audiences, competitors, and key features that would differentiate our platform from others.

The development process involved the selection of a robust technology stack, including a content management system (CMS), secure payment gateways, and responsive design techniques to ensure accessibility across various devices. The website's architecture was carefully planned to support scalability, security, and ease of navigation, with particular attention paid to user interface (UI) and user experience (UX) design.

Throughout the development, emphasis was placed on security measures to protect user data and ensure safe transactions. Rigorous testing was conducted to guarantee the website's functionality, performance, and reliability before deployment. The result is a fully functional eCommerce platform that meets modern standards of online retail, providing both customers and administrators with an efficient and user-friendly environment.

This report outlines the methodologies used, challenges encountered, and solutions implemented during the project, offering insights into the successful development of an eCommerce website capable of competing in today's dynamic online marketplace.

**KEYWORDS**

* ecommerce
* Online Shopping
* User Experience (UX)
* User Interface (UI)
* Web Development
* Payment Gateway
* Market Analysis
* Security

RESUME

À l'ère numérique, le commerce électronique est devenu un élément essentiel de la stratégie commerciale, permettant aux entreprises d'atteindre un public mondial et d'offrir aux clients un accès pratique aux produits et services. Ce rapport détaille la conception et la réalisation d'un site web de commerce électronique conçu pour offrir une expérience d'achat en ligne fluide. Le projet a débuté par une analyse de marché approfondie visant à identifier les publics cibles, les concurrents, et les fonctionnalités clés qui différencieraient notre plateforme des autres.

Le processus de développement a impliqué la sélection d'une pile technologique robuste, incluant un système de gestion de contenu (CMS), des passerelles de paiement sécurisées, et des techniques de conception responsive pour garantir l'accessibilité sur divers appareils. L'architecture du site a été soigneusement planifiée pour soutenir l'évolutivité, la sécurité, et la facilité de navigation, avec une attention particulière portée à la conception de l'interface utilisateur (UI) et de l'expérience utilisateur (UX).

Tout au long du développement, l'accent a été mis sur les mesures de sécurité pour protéger les données des utilisateurs et assurer des transactions sûres. Des tests rigoureux ont été effectués pour garantir la fonctionnalité, la performance, et la fiabilité du site avant son déploiement. Le résultat est une plateforme de commerce électronique entièrement fonctionnelle répondant aux normes modernes du commerce en ligne, offrant aux clients et aux administrateurs un environnement efficace et convivial.

Ce rapport décrit les méthodologies utilisées, les défis rencontrés, et les solutions mises en œuvre au cours du projet, offrant des perspectives sur le développement réussi d'un site web de commerce électronique capable de concurrencer dans le marché en ligne dynamique d'aujourd'hui.

### Mots-clés

* **Commerce électronique**
* **Achat en ligne**
* **Expérience utilisateur (UX)**
* **Interface utilisateur (UI)**
* **Développement web**
* **Passerelle de paiement**

GENERAL INTRODUCTION

Technology is advancing at an incredible rate, spanning almost every sector from business to agriculture and other sectors. Due to the huge technological advancement, we now live in a fast-paced society where everything is gradually being digitalized making life easier. As a developing country, most businesses in Cameroon strive to make advantage of the digital economy to grow their businesses thereby boosting the economy as well. To achieve such a goal enterprise, need qualified personnel having skills in computer sciences and related fields. Second year students in AICS Cameroon, are required to carry out a three (3) months’ academic internship at an enterprise to put into practice the knowledge gotten from school in the professional milieu. For this reason, we applied for an internship at MickMaq, which specializes in providing IT solutions. While there, we were attributed the theme “CONCEPTION AND REALIZATION OF AN ECCOMERCE PLATEFORME”. We divided this report into eight (8) parts which are as follows:

1. **Insertion Document:** In this book, we shall present the company in which we spent our internship period and the integration of interns.
2. **Existing System:** Here, we shall present the already present system in place, that is the one used for consultation and follow-up purposes.
3. **Specification Book:** In this book, we specify the needs of the user taking into considerations the time and cost of the project.
4. **Analysis Document:** Here, we shall present the analysis method chosen together with the presentation of all the diagrams used for the analysis of this project.
5. **Conception phase:** This presents the generic and detailed conception of the project to bring out real world constituents.
6. **The Realisation phase:** This phase will permit us to visualize the implementation process of the solution.
7. **Test of functionalities:** In this phase, we shall present to you the different functionalities or modules of our application and how they work.
8. **The User Guide:** This elaborates on all conditions necessary to use the application and how to use it.

**PART I**

**INSERTION PHASE**

# Preamble

This section of the report will cover details of how we were welcomed in the host company, presentation, organization and brief introduction to our project.

# Content

INTRODUCTION

I.

II.

WELCOME AND INSERTION

GENERAL

COMPANY

PRESENTATION

OF

THE

1. ORGANIZATION OF THE COMPANY
2. GEOGRAPHICAL LOCATION
3. BRIEF PRESENTATION OF THE PROJECT THEME

CONCLUSION

INTRODUCTION

The insertion phase in a company is a period during which we discover our working environment, the staff of the company and other interns. Here, we will begin by discussing our first two weeks in the company, how we were welcomed and how we began adapting to our internship environment, we will proceed by exploring the history of the company, discovering its missions, learning what its major activities are, and witnessing some of its key realisations. We will also get to understand how the company is structured administratively and functionally so that it operates effectively and accomplishes its goals. Furthermore, we will look at the hardware equipment used by the company, and the software resources used in its daily operations. We will then introduce our chosen theme for the internship period, briefly elaborate on it.

# WELCOME AND INSERTION

We arrived at MickMaq on Monday 01 July 2024, at 09:00 a.m. we were received by the director of the IT department, Mr. HASSAN, who introduced me to our workspace, gave us an official welcome to the enterprise, its activities and its different rules and regulations. Also, we discussed on the enterprise’s preferred languages and frameworks, our professional supervisor encouraged us through his past working experiences in different enterprises.

The first week we did verification of concept with basic HTML and CSS to ensure that everybody was at the same level before kicking off. There was a talk on project ideas, we were advised to propose project ideas and we were assigned the tasks to carry out research on these ideas. The objective was that the enterprise did not want to impose some themes on us.

The second week we proceeded with verification of JavaScript concepts with some exercises, to test our reasoning and understanding faculties. We also discussed about the specification book with our professional supervisor and its different components, with him explaining what was required from us in each component. We discussed further on our different project ideas to give it shape.

# GENERAL PRESENTATION OF MICKMAQ

### Background:

Mickmaq is a Cameroon based non-governmental tech company institute founded by Ndelogakeh Daniel in 2022 which proposes IT solutions and empowers the use of new technologies in Cameroon.

### Missions

The mission of Mickmaq mainly relates to the empowerment and the perpetuation of Technology use. These include:

* + Design and Mickmaq mobile-oriented software for companies and individuals.
  + Assist newborn companies for quick growth using computer sciences.
  + Provide training and certifications to improve qualified human resources in many fields of study.
  + Take an active part in the sustainable development of the world through innovative solutions and virtual reality.

### Vision :

At Mickmaq, we believe that the true potential of every organization and individual can be unlocked through the harmonious fusion of analysis, development, realization, and data analytics. Our vision propels us forward, guiding us to make a lasting impact on the digital landscape and shape a future where innovation knows no bounds."

### Activities

The activities of Mickmaq range from computer sciences, engineering, and training. We can outline the following:

* 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

# ORGANIZATION OF MICKMAQ

### A. Administrative organization

Mickmaq is administratively organized as follows:

* 1. The General management

This is the highest level of the company, which takes care of the following:

* + - Proper functioning of each department.
    - Define project strategies.
    - Provide leadership and guidance to the company’s employees.
    - Makes critical decision that could affect the company’s operations or reputation
    - Severe as a point of contact for key stakeholders such as investors etc.
  1. Human resource department

This department is in charge of the following:

* + - Recruitment and Hiring.
    - Acts as a liaison between employees and management;
    - Manages employee compensation and benefits programs;
    - Develops and implements company policies and procedures, ensuring compliance with employment laws and regulations.
    - Manages administrative tasks related to employee records, data management, and HR systems.
  1. Communication Department

This department is in charge of the following:

* + - Handles public relations activities, which involve managing the company’s reputation and image.
    - Responsible for crafting and delivering messages to external stakeholders such as customers etc.
    - It fosters effective communication within the company.
    - They create and manage content across different platforms and channels.
  1. Department of Financial Affairs

This department is in charge of the following:

* + - Responsible for developing and managing the company’s financial plans and budgets.
    - Prepare and present accurate and timely financial reports to management, stakeholders, and regulatory authorities.
    - Responsible for managing costs and expenses within the organization.
    - Ensures compliance with tax laws and regulations. Etc.
  1. Technical department

This department is in charge of the following:

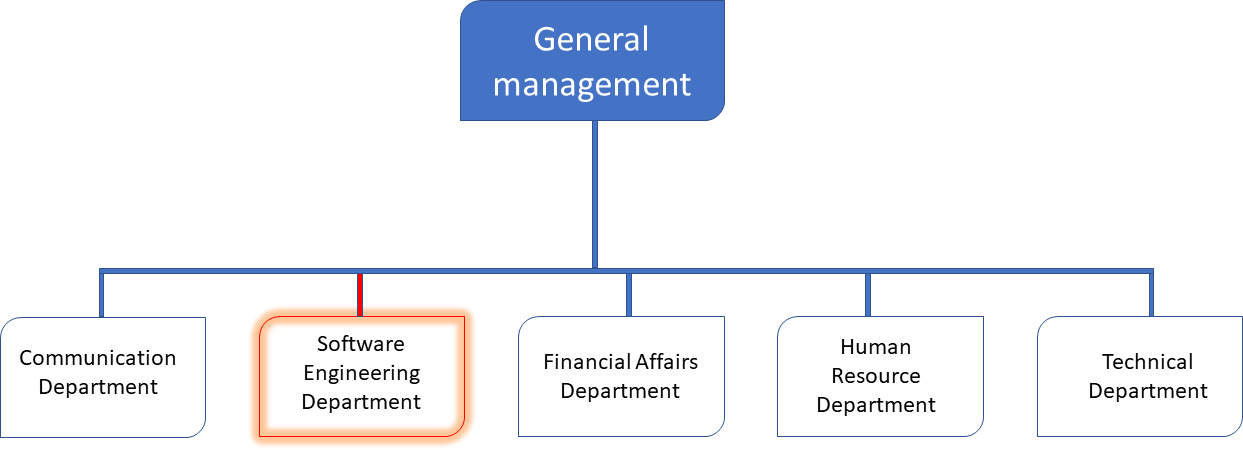
* + - Managing the company’s technological infrastructure, including networks and hardware.
    - Play a role in managing and maintaining the company’s data.
    - Implementing and maintaining cybersecurity measures to protect the company’s digital assets from potential threats.
    - Interacts with technology vendors and manages relationships with external service providers. Etc.
  1. Software Engineering Department

This department is in charge of the following:

* + - Primarily responsible for developing software applications and systems.
    - Responsible for maintaining and supporting software applications throughout their lifecycle.
    - Evaluation and realization of projects etc.

# B.FUNCTIONAL ORGANISATION OF MICKMAQ

The functional branch of Mickmaq is organized as follows,



*Figure 1: Functional Organization of Mickmaq*

# GEOGRAPHICAL LOCATION



*Figure 2:* *GEOGRAPHICAL LOCATION OF MickMaq*

# BRIEF PRESENTATION OF THE PROJECT THEME

Following our arrival at MickMaq, we were encouraged to suggest innovative project ideas for our internship. Following the mission of MICKMAQ that demonstrate the company’s willingness to take active part in the sustainable development of the world through innovative solutions, we saw the room for creativity in our project idea and proposed the theme “**CONCEPTION AND REALIZATION OF AN ECOMMERCE PLATEFORM**”. This system that we named Calex optic is made up of an admin dashboard, ,Patient’s dashboard.

Calex optic’s patient’s dashboard provide the patients with a list of available hospitals from which he/she can get a list of trained medical personnels in various fields where they can book for an appointment for consultation or in cases of emergency locate the closest hospital or free health professional, a chat section for discussions with these medical professionals on light or less serious cases, a geolocalisation section where they can locate the different pharmacies that are opened at that particular time, that have the required drugs they are looking for and most importantly that are not far from their current position. Consultations are also made through video calls.

# CONCLUSION

Our insertion phase at MICKMAQ lasted for two (2) weeks. We discovered the amazing environment where we found ourselves in. This environment gives room for hard work, perseverance and collaboration, what most students are looking for. We learned about the missions of the company, its activities. We met and got acquainted with the staff and other interns at MICKMAQ. Finally, we chose our theme “**DEVELOPMENT OF A PATIENTS’ CONSULTATION AND FOLLOW-UP PLATFORM FOR CAMEROON GOVERNMENT HOSPITALS**”.

PART II

EXISTING SYSTEM

Preamble

The existing system is a document that provides a view of the system currently in place, that is how it carries out its different activities, also it provides a deep understanding of this system associated to the various limitations, the problems that result from these and the solution we propose.

Content

INTRODUCTION

1. PRESENTATION OF THE THEME
2. STUDY OF THE EXISTING SYSTEM
3. CRITICISMS OF THE EXISTING SYSTEM
4. PROBLEMATICS
5. PROPOSED SOLUTIONS

INTRODUCTION

Every system undergoes changes over time, and positive changes often require an improved system.This can be achieved by either enhancing the existing system or developing a new one .In either case, it is necessary to analyse the existing system .In this phase we will thoroughly study and comprehend the functionality of the current system .Once we have a complete understanding of the system , We will identify any existing problems.These identified problems will then be followed by the proposed solutions .The main objective of our proposed system is to enhance the management of essential activities across various sectors of an E-commerce system .Specifically ,the application will focus on facilitating online purchasing of goods.STUDY OF THE EXISTING SYSTEM.

1. Delimitation of the field of study

E-commerce stands for electronic mean which has to do with the buying and selling of products or goods online .We are going to implement an ecommerce plateform permiting :

* The Administrator(Owner) to add available products in his store and manage them(I.e,he can view products in his store remove it and make a statistic of the sale done)in his database.
* The client or individual can view the different products corresponding to their category and can buy a product.

1. Presentation of the existing system

The study of the existing system can be briefly explained in the few steps below for easy and quick understanding.

* Client are given a small receipt to enter their information manually
* Bought and sold Product list are made to view the sale statistics manually.
* Client Registration are still done on paper and at times it is not.
* Seller walk around it table to attract client to buy goods

1. LIMITATIONS OF THE EXISTING SYSTEM

For us to put in place our proposed system, it is important to point out the possible limitations of the existing system .After all possible studies carried out the on the existing system ,We identified the following limitations of the existing system ;

* Manual registration on the forms can lead to loss of information.
* It may lead to data reducdancy, time wastage and data destruction by environmental hazards or by the Public community Authority council.
* The fact that the product are been expose to heat and rain can damage them.
* The seller can easily fall sick
* Safety concerns:Street vendors may be at risk of theft ,violence , or harassment while selling their product.

1. PROPOSED SOLUTIONS

The aim of proposed solution is to develop a system

**PART III**

**SPECIFICATION BOOK**

# Preamble

The Specification book is a document which is been established by the customer needing a particular product and the producer (engineer) who is to create the product, which is to be respected to its fullness during the realization of the product. From this, we obtain the major importance of the specification book.

Content

PLAN

INTRODUCTION

1. CONTEXT
2. PROBLEM DEFINITION
3. OBJECTIVES OF THE PROJECT
4. EXPRESSION OF NEEDS
5. PROJECT PLANNING
6. DELIVERABLES

CONCLUSION

INTRODUCTION

IN order to efficiently Mickmaq our project “CONCEPTION AND REALIZATION OF AN ECOMMERCR PLATEFORM” it is important to create a specification book . The specification book of our report helps us provide details about our theme to improve our understanding of it and increase the likelihood of it succeeding. To delimitate the scope of our project, we will specify the context of our theme. From the context, we will list the problems we have decided to address throughout the project. After presenting our solution, we will talk about the objective we have set for the project. Also, we will explore the needs to which our system will respond both at the functional and non-functional level. We will then look at the estimated financial requirements for our project and establish a plan we will follow to complete our project on time. From here, we will discuss what is expected of us by the end of the project under the project deliverables

1. CONTEXT

E-commerce , also known as electronic commerce , refers to the buying and selling of goods or services over the internet .In recent years ,the rapid growth of the internet has facilitated the widespread adoption of e-commerce ,enabling business of all sizes to effectively reach customers worldwide .the shift has been accompanied by many advantages .one prominent benefits of ecommerce is the ability to operate 24/7 ,eliminating the need for physical storefronts .As a result customers has the ability to shop at any time, providing them with enhance convenience . Moreover E-commerce enables businesses to access a global audience ,creating new avenues for market expansion and potential growth .

1. PROBLEM DEFINITION

Many customers still face difficulties in purchasing high-quality products online, primarily due to the rise of profit-driven businesses that prioritize financial gains over customer satisfaction. These businesses often flood the market with substandard goods, making it challenging for consumers to identify products that meet their expectations. This situation also puts small businesses, which are dedicated to offering superior quality products, at a disadvantage, as they struggle to compete with larger, resource-rich corporations. The need for a reliable e-commerce platform that prioritizes both product quality and customer satisfaction is evident, and addressing this issue is essential for fostering a more trustworthy and fulfilling online shopping experience.

1. OBJECTIVES OF THE PROJECT
2. General objective

The general objective of an ecommerce website is to create an online plateform that enables users to purchase products or services easily and conveniently.

1. Specific objectives

* **Design a User-Friendly Interface**: Create an intuitive and aesthetically pleasing user interface that enhances the shopping experience, making it easy for customers to browse, search, and purchase products.
* **Implement Secure Payment Systems**: Integrate secure and diverse payment gateways to ensure safe and convenient transactions for users, fostering trust in the platform.
* **Enhance Customer Support Services**: Establish comprehensive customer support, including live chat, FAQs, and user-friendly return and refund policies, to ensure customer satisfaction and resolve issues efficiently.
* **Enable Personalized Shopping Experiences**: Implement personalized recommendations and targeted marketing strategies based on customer preferences and behavior to improve user engagement and satisfaction.
* **Ensure Scalability and Performance**: Design the website architecture to handle high traffic volumes and a growing product catalog, ensuring fast load times and smooth performance.
* **Integrate Advanced Analytics**: Utilize analytics tools to monitor user behavior, sales trends, and website performance, enabling data-driven decisions to continually enhance the platform.
* **Promote Sustainability and Ethical Practices**: Incorporate features that encourage sustainable shopping practices, such as highlighting eco-friendly products and offering incentives for sustainable choices.

By achieving these objectives , An ecommerce website project can create an effective platform that enables the purchase goods or services ,an ultimately drive growth and profitability for the organization behind the project .

1. EXPRESSION OF NEEDS
2. FUNCTIONAL NEEDS

Base on the different actors that exist in our system we have as fuctional need:

1. Administrator
   * View the ecommerce website store i.e add ,delete,and view different products or categories of products available.
   * Manage his/her profile i.e ,can modify any relevant information concening him/her
   * Authebticate his/her self
   * View statistic of sales done
2. Client
   * Authenticate his/her-self.
   * Buy product
   * Add product to cart
   * View his/her profile
3. Visitor
   * View products and category of product
   * Add products to Wishlist Shopping cart
4. Non-Functional needs

The non functional needs essentially specify how the system behave and that it is a constraint upon the systems behavior .They could be the thought of as quality attributes of the system.

1. PERFORMANCE REQUIREMENTS

The system must perform what every user expects with no delay.Every action response of the system such as opening windows forms ,displaying error messages and saving the forms or session should be fluent .A machine with core i3 and a RAM of 4gb will be necessary for the good functioning of the system .

1. SOFTWARE REQUIREMENTS SPECIFICATIONS

Security:This programs uses object oriented mechanism to protect the data passed using methods.We can also add to it the presence of a very good login procedure (authentication system)together with the responsibility of students within the system.It also provides the following :

* + Check data integrity for critical variables
  + Restrict communication between some areas of the software
  + Assign certain functions to the different modules .

1. SOFTWARE QUALITY ATTRIBUTES

### 1. **Reliability**

* **Definition**: The ability of the software to perform its required functions under stated conditions for a specified period of time.
* **Resources**:
  + - * + **Automated Testing Tools**: Tools like Selenium, JUnit, and Postman help ensure the software behaves as expected.
        + **Error Monitoring Services**: Tools like Sentry or New Relic monitor errors and uptime in real-time.

### 2. **Usability**

* **Definition**: The ease with which users can learn, use, and interact with the software.
* **Resources**:
  + - * + **User Experience (UX) Design**: Following UX principles and using tools like Adobe XD, Figma, or Sketch can enhance usability.
        + **Usability Testing**: Conducting tests with actual users to gather feedback on ease of use.

### 3. **Performance**

* **Definition**: The ability of the software to perform its tasks quickly and efficiently under varying conditions.
* **Resources**:
  + - * + **Performance Testing Tools**: Tools like Apache JMeter, LoadRunner, and Google Lighthouse test the speed, responsiveness, and stability of the application.
        + **Optimization Techniques**: Caching strategies, code optimization, and database indexing.

### 4. **Security**

* **Definition**: The protection of software against unauthorized access, data breaches, and other vulnerabilities.
* **Resources**:
  + - * + **Security Best Practices**: OWASP Top 10 guidelines for web application security.
        + **Security Testing Tools**: Tools like OWASP ZAP, Burp Suite, and Nessus for penetration testing and vulnerability scanning.

### 5. **Maintainability**

* **Definition**: The ease with which software can be modified to correct faults, improve performance, or adapt to a changed environment.
* **Resources**:
  + - * + **Code Quality Tools**: Tools like SonarQube, ESLint, and Prettier for maintaining code quality and consistency.
        + **Version Control**: Using Git for tracking changes and facilitating collaboration among developers.

### 6. **Scalability**

* **Definition**: The ability of the software to handle increased loads and adapt to growth.
* **Resources**:
  + - * + **Cloud Services**: Platforms like AWS, Google Cloud, and Azure provide scalable infrastructure.
        + **Load Balancers**: Tools like NGINX or HAProxy distribute traffic efficiently across servers.

### 7. **Interoperability**

* **Definition**: The ability of the software to work with other systems and applications.
* **Resources**:
  + - * **API Standards**: RESTful APIs, GraphQL, and SOAP ensure that the system can communicate effectively with others.
      * **Integration Tools**: Tools like Zapier and MuleSoft facilitate seamless integration between different software systems.

### 8. **Portability**

* **Definition**: The ease with which software can be transferred from one environment to another.
* **Resources**:
  + - * **Containerization**: Using Docker or Kubernetes to package applications in a way that they can run in any environment.
      * **Cross-Platform Development**: Frameworks like React Native or Flutter for building applications that work across different platforms.

### 9. **Compliance**

* **Definition**: Adherence to laws, regulations, and guidelines relevant to the software's operation.
* **Resources**:
  + - * **GDPR Compliance**: Ensuring that data collection and processing meet European Union regulations.
      * **PCI DSS**: Standards for securing credit card transactions and sensitive data in e-commerce applications.

### 10. **Documentation**

### **Resources**:

* + - * **Documentation Tools**: Tools like Doxygen, Swagger, and ReadTheDocs for creating and managing documentation.
      * **API Documentation**: Properly documenting APIs so other developers can integrate them easily.

1. ESTIMATION OF COST

It is of need to do the estimated cost of the project. The cost of the project is the sum of the costs: the human resources of the project, the hardware and the software resources of the project. The most important factor in the estimation of a project being the human resources been used.

1. Human Resources

*Table 5: Human Resources (source : Mercurial 2022)*

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| **ROLE** | **NUMBER OF DAYS** | **QUANTITY** | **COST PER DAY** | **TOTAL PRICE (FCFA)** |
| **Project Manager** | **90** | **01** | **30 000** | **2 700 000** |
| **Analyst** | **21** | **01** | **25 000** | **525 000** |
| **UI/UX**  **Designer** | **07** | **01** | **20 000** | **140 000** |
| **Programmer** | **30** | **01** | **15 000** | **450 000** |
| **Tester** | **14** | **02** | **10 000** | **140 000** |
| **Margin error** | **/** | **/** | **/** | **1,475,000** |
| **TOTAL 3** |  |  |  | **4 840 000** |

1. Hardware resources

*Table 4: Hardware resources (source: http*[*s://www*](http://www.scribd.com/document/561202966/mercuriale-2022))*.sc*[*rib*](http://www.scribd.com/document/561202966/mercuriale-2022))*d*[*.com/document/561202966/mercuriale-2022)*](http://www.scribd.com/document/561202966/mercuriale-2022))

|  |  |  |  |
| --- | --- | --- | --- |
| **RESOURCES** | **HARDWARE** | **Quantity** | **UNIT COST**  **(FCFA)** |
| **Computer** | *LAPTOP HP ELITEBOOK 8540P CORE I5, DISQUE DUR 500 GO, RAM 4 GO,*  *ECRAN LARGE 15" HD* | **1** | **402 500** |
| **Printer** | Printers | **1** | **546 250** |
| **Network** | Local network installation | **1** | **300 000** |
| **Removable Disk** | Removable Disk | **1** | **11 555** |
| **Smart phone** | Smart phone | **2** | **150 000** |
| **TOTAL 2** |  | **6** | **1 410 305** |

1. Software resources

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| **RESOURCES** | **DESIGNATION** | **USAGE** | **QUANTITY** | **UNIT COST**  **(FCFA)** |
| **Formatting** | Microsoft Office  365 | Writing of the  report | 1 | **47 998** |
| **Cloud**  **Storage** | Google Cloud | Saving our report | 1 | **Freemium** |
| **Web**  **browser** | Google Chrome | View web pages | 1 | **Freeware** |
| **Code Editor** | Visual Studio Code | For writing the code of the  application | 1 | **Freeware** |
| **Project**  **planning** | Gantt Project | For building a  Gantt chart | 1 | **Freemium** |
| **Illustrating tool** | Ichogram | For building a geographical location of the  enterprise | 1 | **Freemium** |
| **UML**  **Analysis** | Sybase  PowerAMC | For drawing  UML diagrams | 1 | **Freemium** |
| **Testing Mobile App** | Expo Go | For testing the mobile  application | 1 | **Freemium** |
| **TOTAL 1** |  |  | **8** | **47 998** |

1. Globalised estimation

*Table 6: Global Estimation*

|  |  |  |  |
| --- | --- | --- | --- |
| **TOTAL 1(FCFA)** | **TOTAL 2(FCFA)** | **TOTAL 3(FCFA)** | **OVERALL TOTAL (FCFA)** |
| **47 998** | **1 410 305** | **4 840 000** | **6 298 303** |
| **SIX MILLION TWO HUNDRED AND NINETY-EIGHT THOUSAND THREE HUNDRED AND THREE** | | | |

1. CONSTRAINTS
2. **Technical constraint**

For the development of our system, we have sufficiently robust tools to guarantee a minimum of security, extensibility and excellent scalability. Moreover, the programming phase will have to follow all the technical standards for a better performance in a reduced execution time, this is why the choice of the development technologies is crucial.

1. **Time Constraint**

The project will be realized in 13 weeks (3 months) starting from the beginning date, July 1, 2024.

1. **Cost constraint**

The realization of our project will require expenditures in human resources, material and software a total cost of 6 298 303 FCFA.

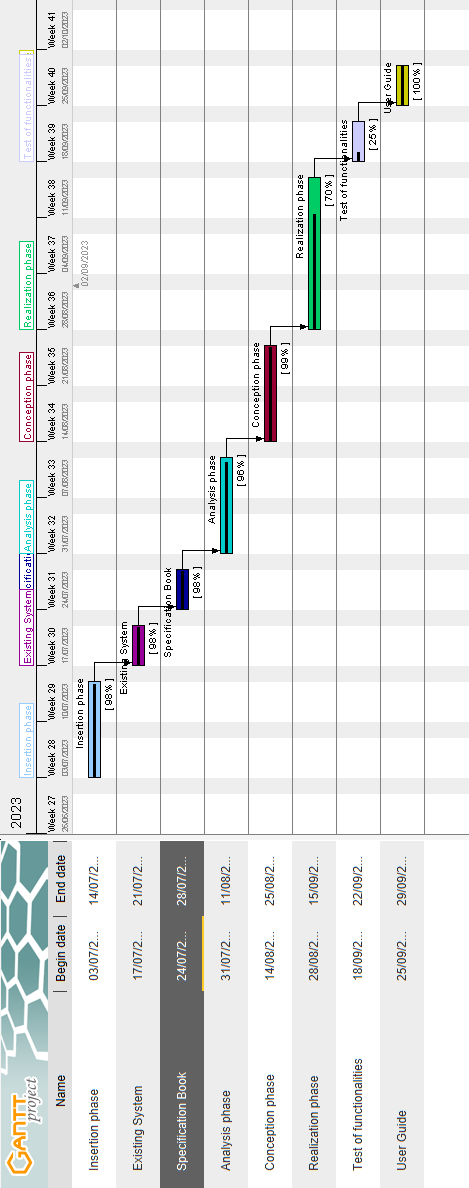
1. PROJECT PLANNING

### Chronogram of activities

*Table 6 chronogram of activities*

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| **PHASE** | **OBJECTIVE** | **OUTPUT** | **DURATION** | **PERIOD** |
| **INSERTION** | Collection of information on the enterprise | Insertion book | 2 weeks | 03rd July to 14th July |
| **EXISTING SYSTEM** | Study of the existing system | Existing System | 5 days | 17th July to 21st July |
| **SPECIFICATION BOOK** | Specification of the user needs | Specification Book | 5 days | 24th July to 28th July |
| **ANALYSIS** | Capture of needs Use case and textual description Modelling | Analysis Book | 2 weeks | 31st July to 11th August |
| **CONCEPTION** | Preliminary conception and Detailed conception | Conception book | 2 weeks | 14th August to 25th August |
| **REALIZATION** | Implementation Unitary test Integration Test Development, Deployment, Component diagrams | Realization book | 3 weeks | 28th August to 15th September |
| **TEST OF FUNCTIONALITIES** | Testing of the software and debugging | Test of functionalities | 5 days | 18th  September to 22nd September |
| **INSTALLATION AND USER GUIDE** | Documenting software | User Guide | 5 days | 25th  September to 29th September |

1. Grant project planning



1. LIST OF PARTICIPANTS AND DELIVERABLES
2. List of participants

|  |  |  |
| --- | --- | --- |
| **NAME** | **FUNCTION** | **ROLE** |
| **Mr. Hassan** | Follows up interns at the  company level | Professional supervisor |
| **Mrs.ONGUENE VANESSA** | Follows up student at the  academic level | Academic Supervisor |
| **NDONGO NGA MAXIME JOEL** | AICS Student Intern | Student at AICS |

1. DELIVRABLES
   1. In project management, any component materializing the result of a realization service is called a deliverable. In the case of our project, the deliverables are: A report composed of the following document
      1. The application.
      2. The user guide.
      3. The powerpoint.

CONCLUSION

Reaching the end of this part. The list of objectives to be achieved has been enumerated and made clear. The specification book permitted us to present the different actors associated with the project as well as the requirement and the provisional planning needed for the achievement of our project. We will move directly to the next part which is the analysis phase. In the analysis phase, we will model our system with a modelling language and a unified process, do a comparative study of uml and merise.