



UbuntuServices



by Emmanuel Caleb Chibuzor



ESTAM FORMATION UNIVERSITY

Declaration Page

Table of Contents

Chapter 1: Introduction 5

Document Scope and Purpose 5

Target Audience 5

Acronyms/Abbreviations 5

System Environment 6

Design Approach / Methodology 6

Architecture Design 6

UI Design 6

System Architecture 7

Components 7

Design Patterns 7

Screenshots 8

Chapter 2: System Design Considerations 7

Website Directories

Exception Handling

Chapter 3: Activity Diagram 20

CHAPTER 1

Introduction

This introduction provides an overview of the System Architecture Documentation for UbuntuServices.com. It includes the purpose, scope, target audience, design approach , main component design and high level system design consideration of the System.

Document Scope and Purpose

This document provides a description of the technical design for UbuntuServices.com. This document's primary purpose is to describe the technical vision for how business requirements will be realized. This document provides an architectural overview of the system to depict different aspect of the system.

Target Audience

UbuntuServices is targeted (but not limited) to business owners:

- Individuals who need the services we proffer
- Business in need of technical innovations

This document makes no assumption about the reader and as such, will highlight the following abbreviations and acronyms now.

Acronyms/Abbreviations

Acronym	Meaning
HTML	Hyper Text Markup Language
CSS	Cascading Style Sheet
PHP	Hypertext Preprocessor
SEO	Search Engine Optimisation
MySQL	My Structured Query Language

UI	User Interface

System Environment

- Development: Visual Studio Code
- Server: Wampp Server
- Database Management: MySQL
- Database: MySQL 5
- Graphics: Unsplash Media

Design Approach / Methodology

The design methodology used here is the **Waterfall (Linear-Sequential Life Cycle) Model**. Each phase of the design was completed before the next feature was added, and each phase subjected to heavy testing before continuing to the next phase.

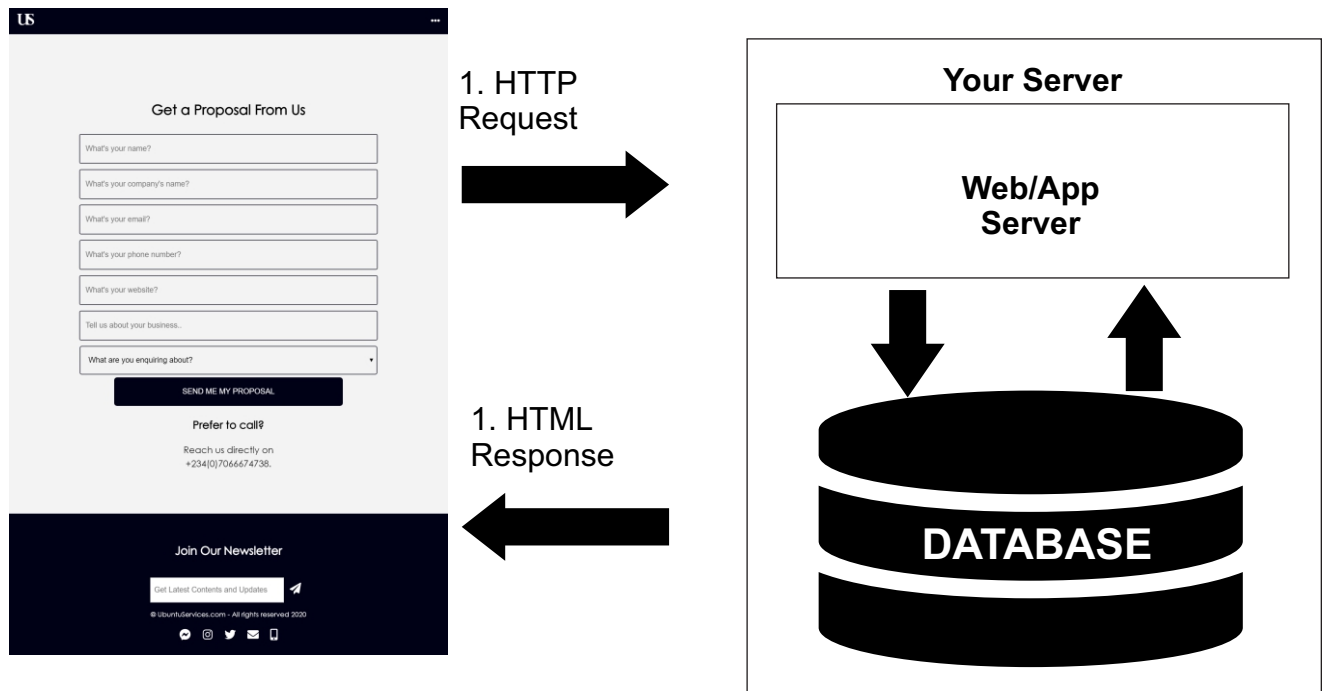
Data Flow Design

The data flow of the system is internet based. All data used on the system is generated by the user.

Architecture Design

The system will follow a Four Layer Architecture so that the objects in the system as a whole can be organized. A principal advantage to this, is the relative ease in development of the components. Implementations may change considerably to enhance the performance or in response to changes in the architecture. These changes are less likely to cause major impact to the applications' program.

System Architecture



Components

- HTML
- API: FontAwesome Icon Pack (SVG, SCSS, CSS, JavaScript, Sprites, Webfonts)
- SQL

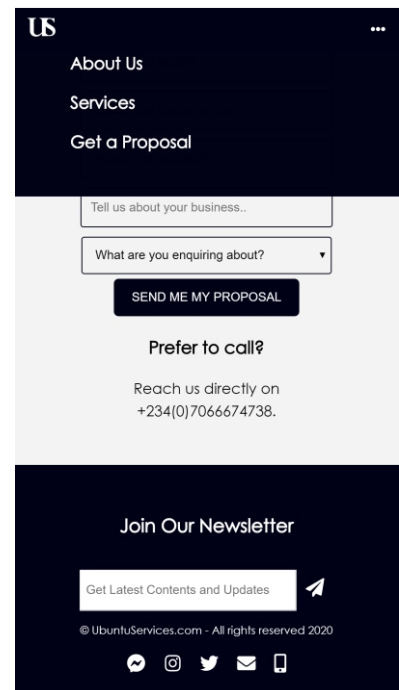
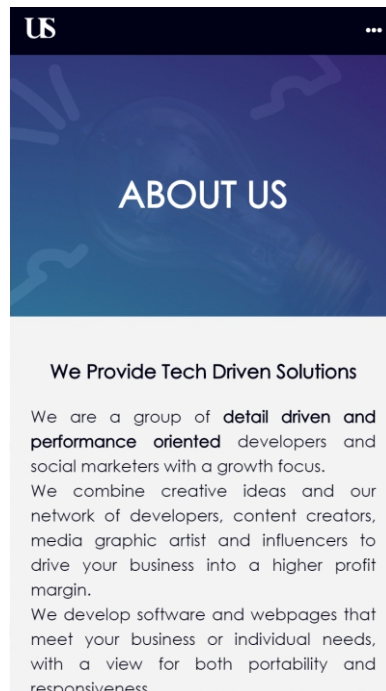
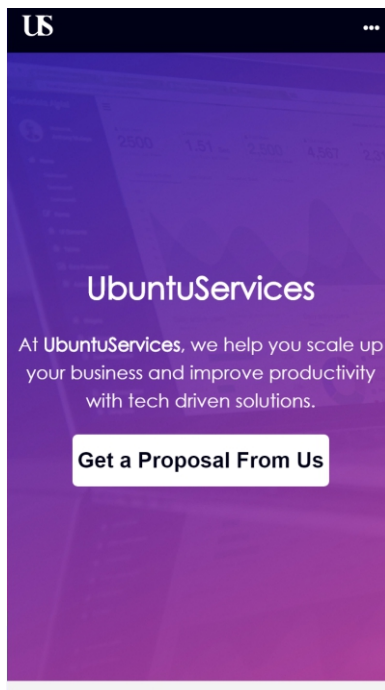
Design Patterns

This application is designed using four-layer architecture.

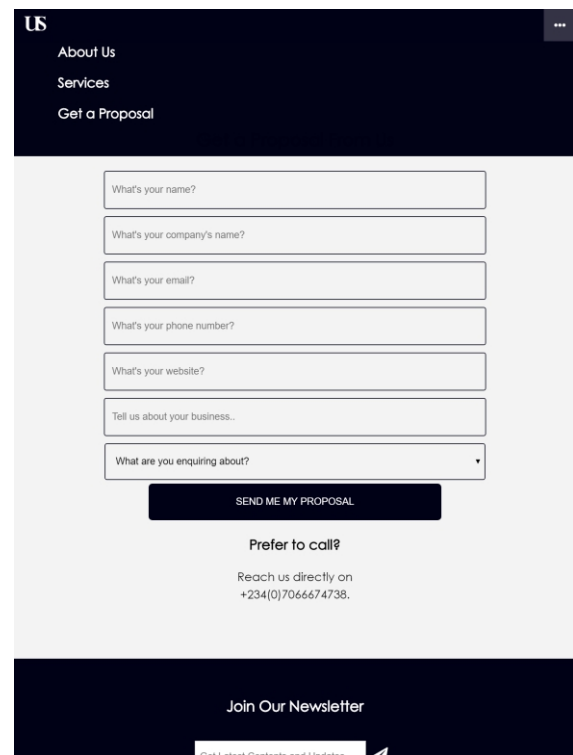
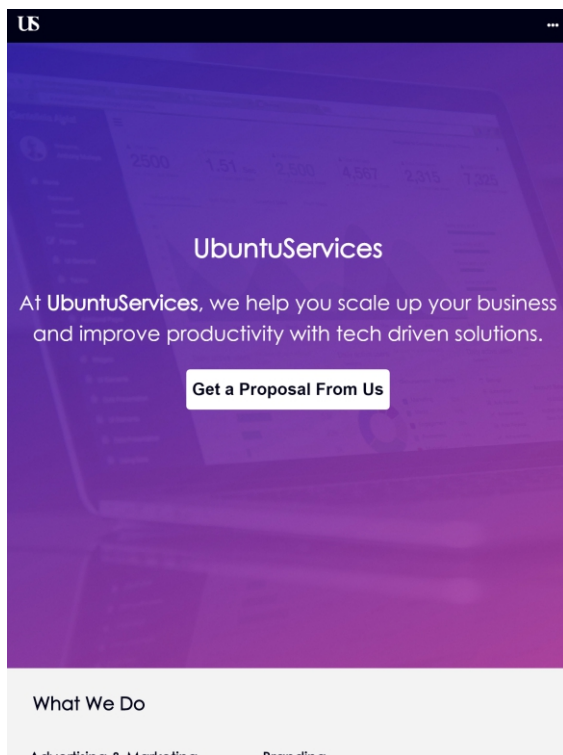
- **The Presentation Layer:** This is the layer where the physical window and icons live. Any new user interface icons developed for this application are put in this layer. This layer is completely developed using HTML.
- **The Domain Layer:** This include Application-independent objects.
- **The Network Layer:** This domain model controls how the front-end of the application communicates with the back-end. This layer is completely developed using PHP.
- **The Data Layer:** The data is managed by MySQL.

SOME SCREEN SHOTS

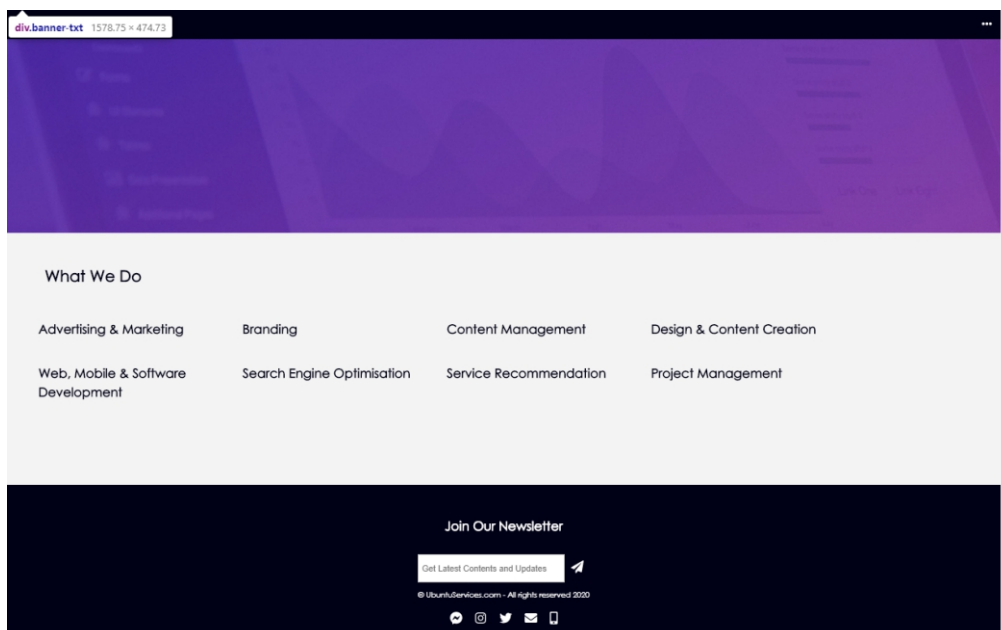
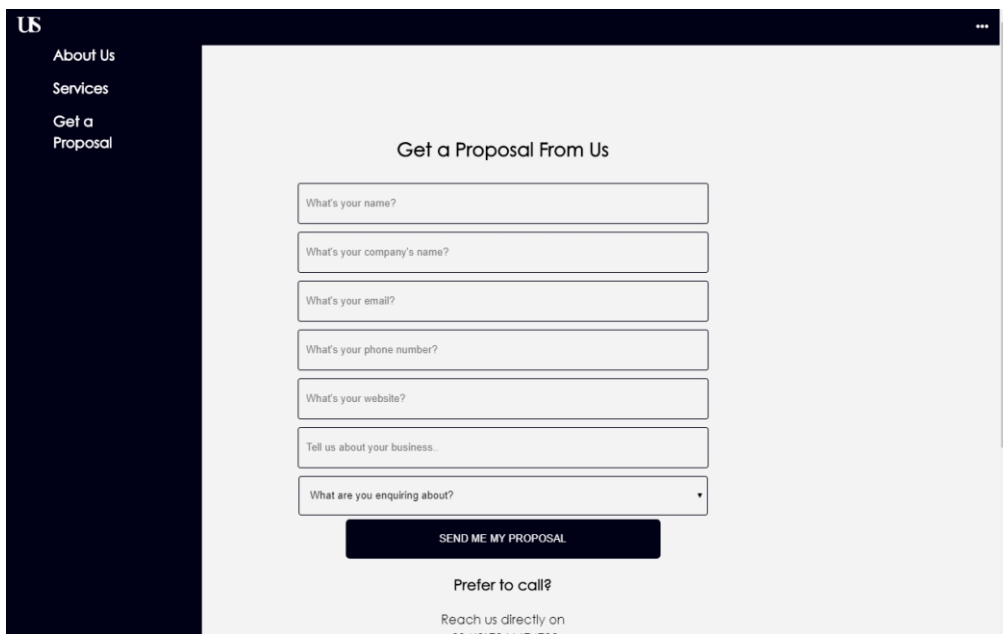
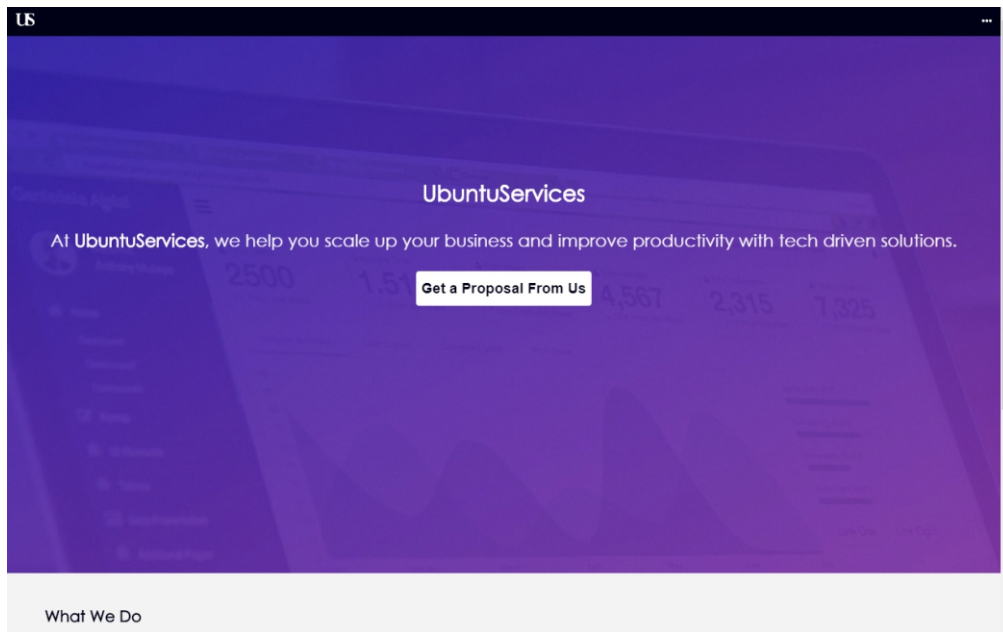
- **Mobile Display**



- **iPad Mini Display**



- Laptop with HiDPI Screen



CHAPTER 2

System Design Considerations

Website Directories

The following website directories will be used to organize the contents used in this website:

User-site Directories:

- Root Directory - All HTML web pages and necessary folder
- Includes Directory - All PHP Network connecting files
- Images Directory - Contains the images used by the system.
- Style Directory - Contains the CSS pages used for styling the system

CHAPTER 3

System Analysis and Design

This chapter deals with the system design in details. It entails the analysis of preexisting systems and how they functioned.

FEASIBILITY STUDY

- **Technical Feasibility:** Technical feasibility of any system depends solely on the availability of the technology needed to build the system. UbuntuServices.com is built from ground-up with **HTML, CSS, JAVASCRIPT** as the front-end technology and **PHP & MySQL** as the back-end technology. Thus, the Design and implementation of this system passed the Technical Feasibility stage.
- **Economical Feasibility:** Economic feasibility of any system is the method of evaluating the economic effectiveness of a new system, this is also known as **Cost/Benefit Analysis**. The technology needed to build this system is easily available and user-friendly.
- **Operational Feasibility:** Operational feasibility of any system tells ease of use of the system to customers. The UbuntuServices.com webpage is user friendly and can be operated with ease by non-technical people. Thus, it is operationally feasible.
- **Financial Feasibility:** A financially feasible system is one that's cost effective to build and manage. Since the technology needed to build UbuntuServices.com is available for free, this system passes the financial feasibility test.

REQUIREMENT ANALYSIS AND SPECIFICATION

- **Requirement Definition:** System design is concerned with the design of the proposed system based on the investigation and requirement made. This involves all pages that make UbuntuServices.com operable. This aspect is strongly by the programming language used to implement the proposed system.

- **Input Design:** Input design data for this paper involves all the data, which are collected manually to the service database. All the data stored on the database are stored in an input table.
- **Output Design:** The output design of the project will be all the processed information, which could be a daily, weekly or quarterly response to the mails listed in the mail subscription service.

CHAPTER 4

System Design, Testing and Implementation

This chapter deals with the system design in details. It entails the analysis of preexisting systems and how they functioned.

FEASIBILITY STUDY

- **Technical Feasibility:** Technical feasibility of any system depends solely on the availability of the technology needed to build the system. UbuntuServices.com is built from ground-up with **HTML, CSS, JAVASCRIPT** as the front-end technology and **PHP & MySQL** as the back-end technology. Thus, the Design and implementation of this system passed the Technical Feasibility stage.
- **Economical Feasibility:** Economic feasibility of any system is the method of evaluating the economic effectiveness of a new system, this is also known as **Cost/Benefit Analysis**. The technology needed to build this system is easily available and user-friendly.
- **Operational Feasibility:** Operational feasibility of any system tells ease of use of the system to customers. The UbuntuServices.com webpage is user friendly and can be operated with ease by non-technical people. Thus, it is operationally feasible.
- **Financial Feasibility:** A financially feasible system is one that's cost effective to build and manage. Since the technology needed to build UbuntuServices.com is available for free, this system passes the financial feasibility test.

REQUIREMENT ANALYSIS AND SPECIFICATION

- **Requirement Definition:** System design is concerned with the design of the proposed system based on the investigation and requirement made. This involves all pages that make UbuntuServices.com operable. This aspect is strongly by the programming language used to implement the proposed system.
- **Input Design:** Input design data for this paper involves all the data, which are collected manually to the service database. All the data stored on the database are stored in an input table.

