PROJECT INCEPTION REPORT

” DEVELOPMENT OF THE INFORMAL DOMESTIC TRADE REGISTRATION SYSTEM - MINISTRY OF FINANCE”

1. INTRODUCTION

Zambia is no exception to the global community utilizing Information and Communications Technologies (ICTs) to better the lives of its citizenry. As a developing country going through a rapid period of economic growth, there are growing concerns of the country’s limited adaptive capacity to capture all economic activities. In particular, increased domestic trade and the failure to capture all economic activities thereof has raised concerns in the corridors of power.

Domestic trade largely made up of the informal sector-street vending, sale at regular and occasional markets as well as homestead stalls is not captured through any system so as to contribute to the Gross Domestic Product (GDP) and no comprehensive database exists either at district or national level to provide employment statistics. To a larger extent, failure to capture this sector has accounted for what we can easily describe as a false GDP.

Against this background, Ministry of Finance through the IT Specialist advised the Minister to invest in developing a simplified registration system to formalize domestic trade. Due to the non-existence of such a system, it is evident that the informal sector’s contribution to the Gross Domestic Product (GDP) is not captured.

2. OBJECTIVES

It is hoped that the simplified registration system will meet all or most of the following objectives:

a) Facilitate the formalization of the informal domestic trade;
b) Make it easy for street based traders, homestead stall owners and marketeers to register their businesses;
c) Establish a database for street and market based traders and homestead stall owners showing the following:
    - Name of the business or business owner

- Business activities to be classified using the International Standard Industrial Classification of All Economic Activities (ISIC) Rev. 4.
- Business type for the use of identifying vending, homestead stalls, and other types of businesses which will be captured using this system.
- Identity card number of the assistant employed by the business owner and mobile phone number if any;
- Business hours; and
- The site of business, i.e. the market, residential area, street of vending zones.

3. METHODOLOGY

A software development methodology is a collection of procedures, techniques, tools, and documentation aids which will help the systems developers in their efforts to implement a new information system.

There are a number of software development methodology each of which are adopted based on a number of factors relating to the project e.g. Time, cost, incorporation of requirement changes during the development process, system complexity, communication between customers and developers, software criticality, size of the development team. These generic models are not definitive descriptions of software processes. Rather, they are abstractions of the process that can be used to explain different approaches to software development. You can think of them as process frameworks that may be extended and adapted to create more specific software engineering processes. Below are a selected number of models:

3.1 The Waterfall Model:

The waterfall model is a sequential design process, often used in software development processes. It takes the fundamental process activities of specification, development, validation, and evolution and represents them as separate process phases such as requirements specification, software design, implementation, testing, and so on.

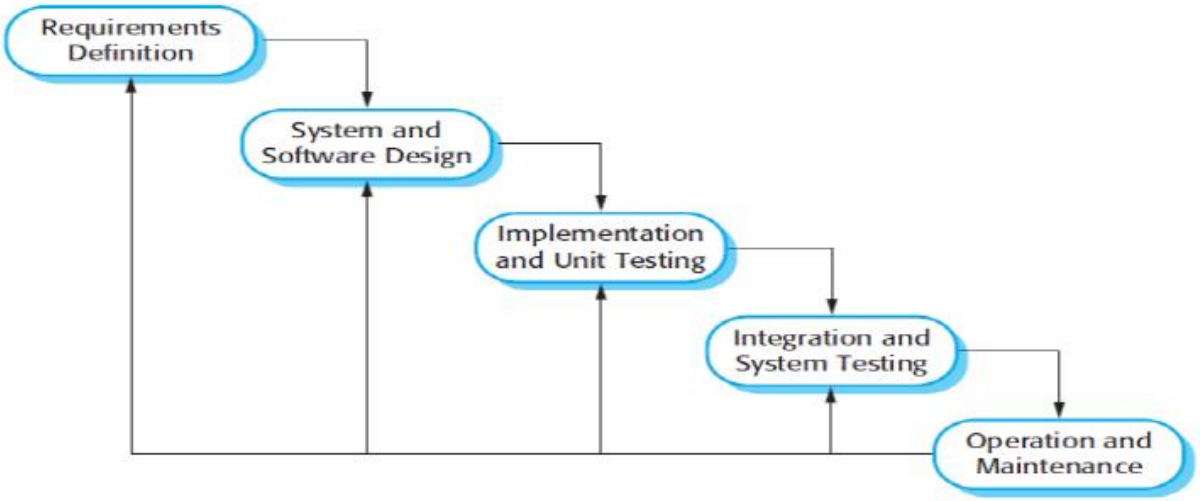

Figure 3.1 Waterfall Model

3.2 Incremental Model:

This approach interleaves the activities of specification, development, and validation. The system is developed as a series of versions (increments), with each version adding functionality to the previous version.

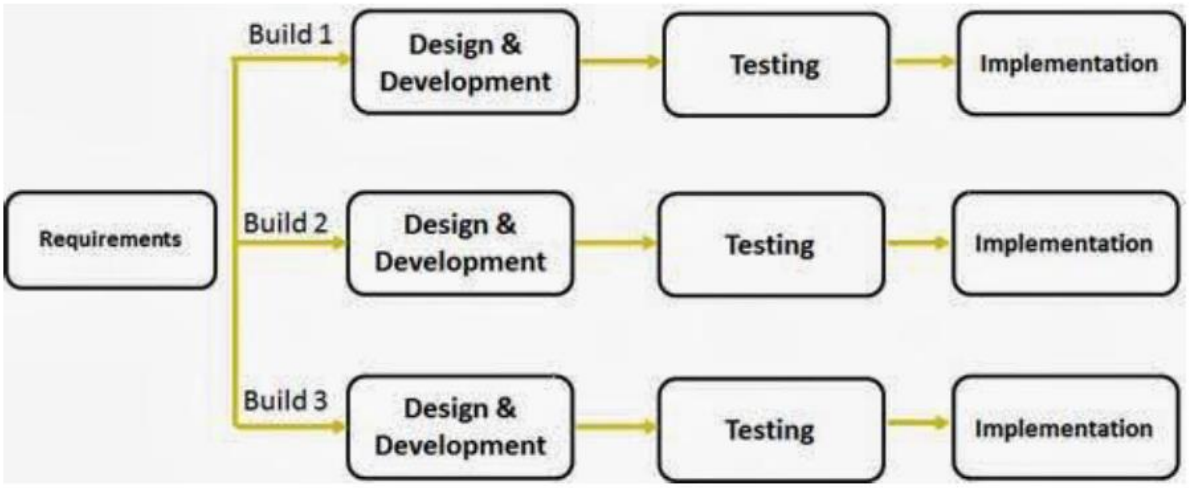

Figure 3.2 Simplified Incremental Model

3.3 Reuse-oriented methodology:

This approach is based on the existence of a significant number of reusable components. The system development process focuses on integrating these components into a system rather than developing them from scratch.

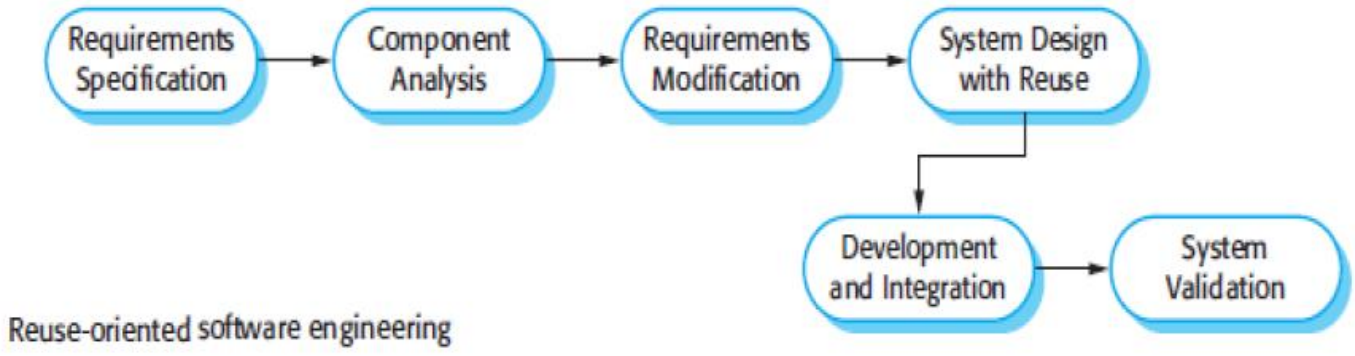

Figure 3.3 Reuse-Oriented Model

4. METHODOLOGY OF CHOICE

Having briefly discussed a few software development methodologies above, the incremental method is favored and will be adopted in this project for the following reasons:

- It allows for development of high-risk or major functions first
- Each release delivers an operational product
- Customer can respond to each build
- Uses “divide and conquer” breakdown of tasks
- Lowers initial delivery cost
- Initial product delivery is faster
- Customers get important functionality early
- Risk of changing requirements is reduced

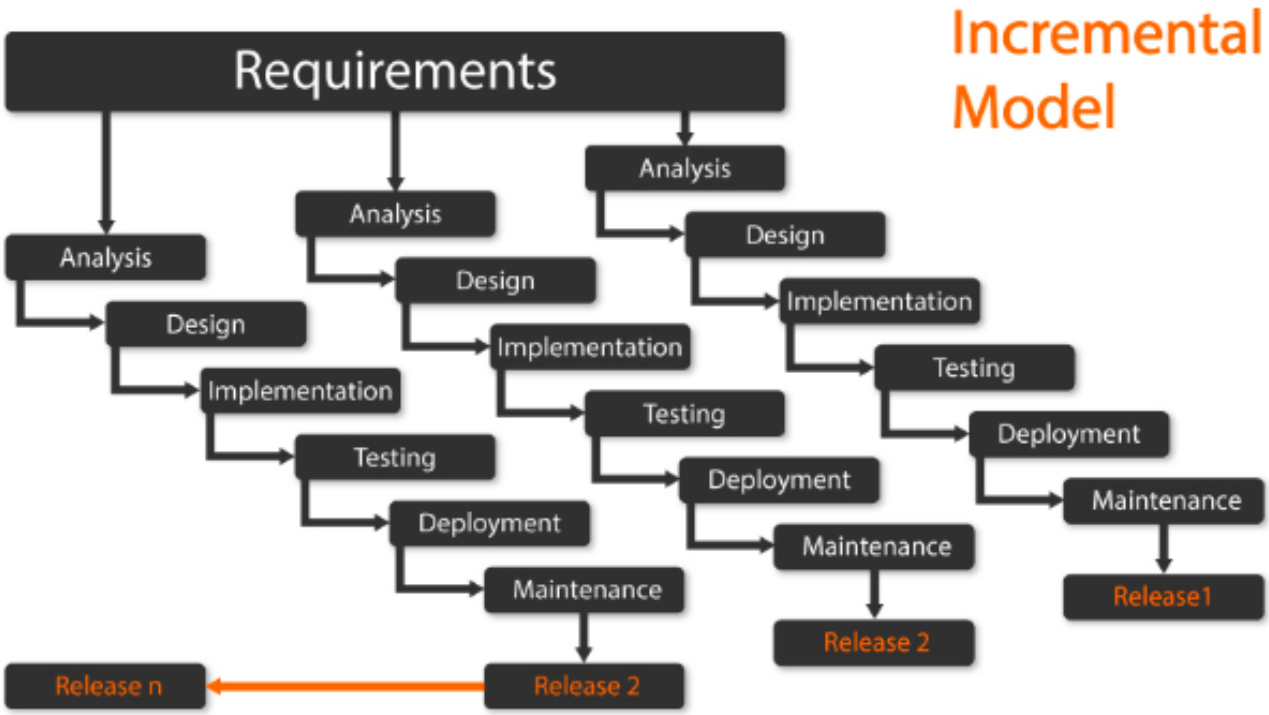

Figure 4.1 Detailed Incremental Model

5. DEVELOPMENT TOOLS

This section is an account of the technologies that will be used in the development of the system.

5.1 Front End Technologies:

Front end-is a term used to characterize program interfaces and services relative to the initial user of these interface and services. It usually refers to the client side of an application. A front end application is one that users interact with directly. Turban et al (2008, p45) defines front end as the portion of an e-seller's portal, electronic catalogs, a shopping cart, a search engine and a payment gateway.

5.1.1 HTML

Hypertext Markup Language (HTML) is a computer language devised to allow website creation. These websites can then be viewed by anyone else connected to the Internet. It is relatively easy to learn, with the basics being accessible to most people in one sitting; and quite powerful in what it allows you to create.

Having the basic knowledge of HTML will could help make or develop m-commerce websites and will also prove to be handy especially for editing and modifying web pages. Furthermore, it has some low cost benefits because of its many free online tutorials and advice support which is vital for m-commerce development.

5.1.2 CSS

CSS is a style sheet language used to describe presentation and layout of HTML tags. CSS is used to enable separation of document content from document presentation. This refers to the separation of document presentation aspects such as colors, layouts and fonts from the actual document content. CSS helps us achieve layout design and control much easier.

5.2 Front End Technologies:

5.2.1 PHP

PHP, abbreviated to Hypertext Preprocessor is a server side web programming language that can be embedded into HTML. PHP is free software i.e. it is open source code. It is used for creating dynamic web pages that interact with the user and can include functionalities such as getting user input, manipulation of the input and storage of this data in a suitable DBMS. PHP is also easy to integrate with web pages.

5.2.2 MySQL

MySQL stands for My Structured Query Language. It is the world's most popular open source relational DBMS. MySQL is available for free under the GNU General Public License for open source benefits/reasons related to development. Initially MySQL was free and some versions of it are still free though if you desire to use MySQL for commercial purposes you will need to purchase a license. It is non-proprietary, easily extensible and platform independent. Its downside is that it lacks a graphical user interface; therefore, you need to know how the database works to make the most efficient use of it.

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