**Software Requirements Specification**

**for**

**Mobile/Tablet/Phablet Recommendation System**

**Version 1.0**

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**Table of Contents**

**Table of Contents ii**

**Revision History ii**

**1. Introduction 3**

1.1 Purpose 3

1.2 Scope of the Project 3

1.3 Overview 4

**2. External Interface Requirements 5**

2.1 User Interfaces 5

2.2 Software Interfaces 5

**3. Nonfunctional Requirements 6**

**4. Functional Requirements…....………………………….....………….......…………7**

**5. References ................................................................................................................... 7**

**Revision History**

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| **Name** | **Date** | **Reason For Changes** | **Version** |
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**1. Introduction**

* Purpose

The purpose of this document is to develop a model for Mobile/Tablet/Phablet Recommendation System based on rule based Expert System. As the name suggests , the Mobile/Tablet/Phablet Recommendation System helps the user in chosing a Mobile/Tablet/Phablet that is best suited for his/her budget . The expert system will ask various questions to the user and according to the answers received , the system will give the output i.e. the name of the Mobile/Tablet/Phablet along with its price . The document will explain the purpose and features of the system. It also explains the interfaces of the system, what the system will do, and how the system will react to external user.

* Scope of the Project

With new brands entering every fortnight, there is a flood of smartphones in the market. As a result the users are perplexed and they have no expert solution to help them out. This expert system will help them to choose a smartphone that is best for his/her budget. The system also helps those users who do not have a sound knowledge of the gadgets and generally gets fooled by the local shopkeepers who convince them to buy a smartphone providing them with higher profits.

The project involves Mobile/Tablet/Phablet Recommendation System based on rule based Expert System. It recommends in the domain of interest based on company preference and pricing.

For a given set of input, recommendation system recommends the gadget based on rules and facts in knowledge base. By improving the knowledge base recommendation can be further refined.

* Overview of document

This document gives an overview of the functionality of the product. It describes the informal requirements and is used to establish a context for the technical requirements specification in the next chapter.

The third chapter, Requirements Specification section, of this document is written primarily for the developers and describes in technical terms the details of the functionality of the product.

**2. External Interface Requirements**

2.1 User Interface

The user interface will be a CLIPS console where user selects gadget type, brand and pricing and the expert system recommends the preferred gadget.

2.2 Software Interface

Software requirements are CLIPS for programming of the rule based expert system.

**3. Nonfunctional Requirements**

Nonfunctional requirements that are to be fulfilled primarily involves an easy to use user interface. The user interface plays a major role, hence software shall be such that people with minimal knowledge about computers can also operate without haste.

Maintainability is an important aspect that also should be considered. The software shall be such that the user doesn’t have to take a lot of pain in maintaining, and updating to new versions or troubleshoot glitches.

The software should be flexible enough to accommodate new constraints and functionalities that can be delivered to the end user in subsequent versions. It should meet the performance requirement of the user and the software should be compatible with changing platform. Because a user may have several resource constraint, the software should not violate those.

**4. Functional Requirements**

* User should have a basic knowledge of various gadget types
* Gadget type required - The user should know which gadget he/she needs.
* Budget of user - If not exact, the user should have an estimate of the budget.
* Preferred brand - If the user has any brand preference, it should be conveyed to the system. This will help in getting accurate result.

5. **References**

* Russell, Stuart; Norvig, Peter.- Artificial Intelligence: A Modern Approach
* "What is a rule-based expert system?". j-paine.org.
* Clips tutorial - https://www.csee.umbc.edu/portal/clips/tutorial/