Voice Command Browsing (Extension for Google Chrome Browser)

MINI PROJECT REPORT

Submitted in partial fulfillment of the requirements for the award of degree

BACHELOR OF TECHNOLOGY

BY

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<u>BONAFIDE CERTIFICATE</u>

This is to certify that the mini project, titled "Voice Command Browsing (Extension for Google Chrome Browser)" by

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submitted in partial fulfilment of the requirement for the award of the degree of Bachelor of Technology, is a bonafide work carried under supervision, during the academic year 2015-2016.

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PROJECT GUIDE	**HEAD OF DEPARTMENT**

INTERNAL EXAMINER	**EXTERNAL EXAMINER**

Abstract

Put Abstract here.....

ACKOWLEDGEMENT

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Chapter 1

Introduction

1.1 OVERVIEW

1.2 PROBLEM ANALYSIS

Problem analysis is the process of understanding the actual problems, user needs and proposing solutions to meet those needs. The goal of problem analysis is to gain a better understanding of the problem being solved before development begins. It is the process of gathering and interpreting facts, diagnosing problems and using the information to recommend improvements on the system. Problem analysis is problem solving activities that require intensive communication between users and the system developers. A problem can be defined as the difference between things as perceived and things as desired. The system is studied and analyzed. The system is viewed as a whole and the input to the system are identified. The output from the system is given to various processes.

1.3 EXISTING SYSTEM

1.4 PROPOSED SYSTEM

1.5 FEASIBILITY STUDY

Feasibility study is a procedure that identifies, describes and evaluates candidate systems and selects the best system for the job. An estimate is made whether the identified users need may be satisfied using the current software and hardware technologies. The study will decide whether the proposed system will be cost effective from a business point of view and if it can be developed using the given existing budgetary constraints. The key considerations involved in the feasibility analysis are the following:

1. Economic feasibility

2. Technical feasibility

3. Operational feasibility

1.5.1 ECONOMIC FEASIBILITY

Economic study is the most frequently used method for evaluating the effectiveness of candidate system. More commonly known as cost/benefit analysis, the procedure is to determine the benefits and savings that are accepted from a candidate system and compares with costs. If benefit outweighs cost, then decisions are made to design and implement the system. Otherwise further alterations will have to be made if to have a chance of being approved. Less hardware is required and can also be mounted on the existing

wheelchair with reduced complexity.Hence this project is economically feasible and is cost effective because of its compatibility and effort saving nature.

1.5.2   TECHNICAL FEASIBILITY

Technical feasibility is a measure of how feasible the project is technically. The effort and technology included in the conventional system is not needed as the whole process is automated. The hierarchy of the new system is very easier than the existing system. The new system is very much easier and user friendly. Operational cost is very easy. The maintenance and modification of the new system needs very less human effort.

Chapter 2

DESIGN

2.1 BLOCK DIAGRAM

2.2 BLOCK DIAGRAM

2.2.1 CONTEXT LEVEL DFD
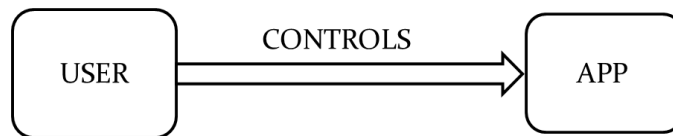
Figure 2.1: Context level DFD

1. Context level DFD is the most basic representation of the system.

2. This indicates the basic working of the system.

3. The user controls the application.

2.2.2 LEVEL 0 DFD

1. Level 0 DFD indicates the basic processes involved in the system.

2. This level indicates all the processes of our system.

2.2.3 LEVEL 1 DFD

1. Level 1 DFD represents the reading of the items by the rfid sensor and its processing.

2. User can add and remove item to/from the trolley.

2.2.4 LEVEL 2 DFD

1. Level 2 represents the processing in mobile app and total display.

2.3 TABLE

2.3.1 ITEMS

Chapter 3

IMPLEMENTATION

3.1 SYSTEM REQUIREMENTS

3.1.1 HARDWARE REQUIREMENTS

3.1.2 SOFTWARE REQUIREMENTS

3.2 PLATFORM AND IDE

3.2.1 ANDROID STUDIO

3.2.2 ARDUINO IDE

3.3 DETAILS OF IMPLEMENTATION

The main objective of our project is to design a wheelchair that will be controlled wirelessly and will be very easy to operate it with no physical efforts.Implementation is the stage of the project when the theoretical design is turned out into a working system. Thus it can be considered to be the most critical stage in achieving a successful new system and in giving the user, confidence that the new system will work and be effective. The implementation stage involves careful planning, investigation of the existing system and it's constraints on implementation, designing of methods to achieve changeover and evaluation of changeover methods.

3.3.1 FUNCTIONAL MODULES

The system is divided into 2 modules:

1. Hardware module

2. Application module

3.3.1.1 HARDWARE MODULE

APPLICATION MODULE:
Source code :

Chapter 4

TESTING

Testing is the most important activity in the development phase. Testing is the process of finding errors or bugs in the system. Testing ensuresthe satisfaction of the users. In other words it isprocess by which one detects the defects in the system. Software testing methods are traditionally divided into black box testing and white box testing. These two approaches are used to describe the point of view that a test engineer takes when designing test cases.

4.1   TEST PLANS

The implementation of a computer-based system requires that test data can be prepared and that the system and its elements be tested in a planned, structured manner. The computer program component is a major subsystem of the computer-based information system, and particular attention should be given to the testing of these system elements as it is developed. Testing is a process of executing a program with the interest of finding an error. A good test is one that has a high probability of finding the yet undiscovered errors. The primary objective for the test case design is to drive a set of tests that has the highest likelihood for systematically uncovering different classes of errors in the software. A series of testing are performed for this project before the system is ready for acceptance. Some of the testing strategies applied for the system are listed here.

Testing Strategies:

1. Black Box Testing

2. White Box Testing

4.1.1   Black Box Testing

Black Box testing also called functional testing, focuses on the functional requirements of the software. Knowing the specified function that a product designed to perform the test can be conducted to ensure that each function is fully operational. Black Box tests are carried out to test that input to function is properly accepted and output is correctly produced. It finds the errors in the following categories:

1. Interface errors.

2. Performance in data structures or external database access.

3. Performance errors.

4. Initialization and termination errors.

5. Incorrect or missing functions.

Black box testing is used to detect errors of type incorrect or missing functions, interface errors, errors in data structures or external database access, performance, initialization and termination errors.

4.1.2   White Box Testing

White box testing, sometimes called – Glass box testing, and is a test case design uses the control structure of the procedural design to check the errors. It involves following procedures:

1. All independent paths within module have been exercised at least once.

2. All logical decisions were checked for the true and false values.

3. All loops were executed to check their boundary values.

4. Internal data structure was tested for their validity.

4.1.3   TYPES OF TESTING

1. Unit Testing

2. Integration Testing

3. Validation Testing

4. Output Testing

5. User Acceptance Testing

6. Product transitions qualities

4.2   TESTCASE TABLES

Table 4.1: CONNECTION PAGE

SL NO.	TEST CASE	RESULT
1		
2		
3		

Chapter 5

RESULTS AND DISCUSSIONS

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5.2 SYSTEM ACHIEVEMENTS

Chapter 6

CONCLUSION AND FUTURE SCOPE