**2.1 Introduction:**

**2.1.1 Purpose:**

The purpose of this Software Requirement Specification document is to provide a detailed overview of our software product, its parameters and goals. This document describes the project's target audience and its user interface, hardware and software requirements. It defines how our client, team and audience see the product and its functionality.

**2.1.2 Definition, Acronym's, Abbreviations:**

1- user: the person who interact with the system.

2- E-marker: the name of the application.

3- Result answer sheet: the answer sheet with all the correct answers.

4- Student answer sheet: the student's answer paper.

5-Adminstrator: Is the person who is going to administrate the system.

**2.2 Overall Description:**

**2.2.1 System Perspective:**

E-marker is a java application which is developed for marking exam sheets by scanning the result sheet and student answer sheet. The application will compare two sheets according to the shaded options then it will calculate the total mark. Basically comparison function will be used to compare between the two retrieved images.

In case of reference all student details will be stored in the database.

**2.2.2 System features:**

1- The system will automatically scan the result sheet and store in the database by clicking a button.

2- The user can add many exams wanted.

3- The system should allow the user to choose specific exam by selecting Exam Id for correction.

4- The system will automatically generate unique exam id for the scanned result sheet to be stored in the database.

5- The system will generate pdf file to retrieve the student details from the database in case of printing or saving documents.

6- The user must log in to the system using his user name and password.

7-The system will turn off when the user enters the user name or password wrongly three times.

8- The student can take more than one exam for the specific subject.

**2.2.3 Operating environment:**

This program will operate in different types of operating systems such as: Windows, Apple Mac OSX, Linux and Solaris. As long as the have the Java Virtual Machine(JVM) on the system. They will be able to run the application.

**2.2.4 Hardware Requirement**:

1- Scanner.

2-

**2.2.5 Software Requirement:**

1- Netbeans and Eclipse: This two programs will be used to do the interface and all the coding for the application.

2- Microsoft access: Will be used as a database for the application.

3- Java Development Kit: used to run the application.

4- Java Virtual Machine: used to run the application.

**2.2.6 Design/ Implementation Constraint:**

1- The system must be connected to the scanner to scan the sheets.

2- The system must be connected to the database to store the result

**2.2.7 Assumption and dependencies:**

1- The system will not be able to scan student answer sheet unless there is at least one scanned result sheet.

**2.3 Specification Requirement:**

**2.3.1 Functional Requirement**:

1- User should be able to log in by user name and password.

2- E-marker should be able to:

2.1 Allow the user to access the database.

2.2 Allow the user to choose particular exam sheet for the correction/

2.3 Scan result sheet.

2.4 Compare two sheets and calculate the total mark based on the shaded option.

2.5 Provide the user with guidance.

2.6 Retrieve student details from student table.

3- User should be able to view student mark.