



SOFTWARE REQUIREMENT SPECIFICATIONS

Project Topic: Unit Converter

Submitted by:

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1. Introduction

a. Purpose

Aim: Create a user-friendly interface that allows users to transform any unit metric conversion.

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Objectives:

- ✓ To build a conversion app that is easy to use.
- ✓ Provide the user with a simple platform for unit conversion.
- ✓ To facilitate correct and effective conversions in the shortest time possible.

b. Scope

System Scope:

Unit converter is an android app which will include the following features:

Distance: Here it is for distance conversion, the user can enter a value to get their desired distance.

Volume: The user should enter a value and choose which volume transfer method they prefer.

Time: The user will enter a value/input and choose whatever time conversion they want.

Speed: In speed, the user will enter value and choose which type of speed they want the result to take.

Temperature: It is mostly used to validate temperature conversions, allowing the user to enter a value and choose either temperature conversion type.

Digital Storage: It is for testing the conversion of the storage that we have in our computing devices, so the user can insert a value and pick from a range of options to convert it to digital storage.

Area: Here the user can get the conversions of area.

Weight: Here the user can get the conversions of any forms of weight.

History: Here the user can view and even can delete the pervious activities done in this app

Feedback/rate us: Here, the user can have reviews and even rate the app

User Scope:

Unit converter is an android mobile application that targets the population of Bhutan.

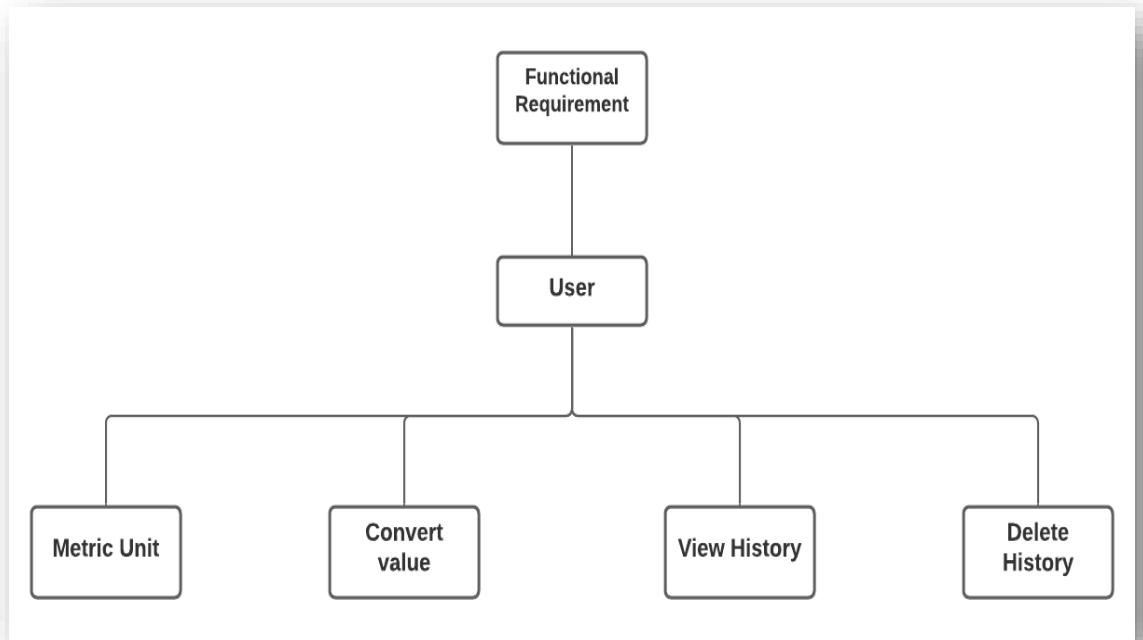
2. Requirements

a. Functional Requirements:

Unit Converter will include the following features:

User Feature:

1. **Metric unit:** To translate their necessary value, they may choose any metric unit such as volume, area, or distance.
2. **Convert value:** The user will input a value and then choose which kind of metric unit they want their value converted to.
3. **View history:** The user can see their previous activities in this section.
4. **Delete history:** Those previous operation records can also be removed by the user.



b. Non-functional Requirements

- Usability: The users will be given specific directions and naming conventions, along with icons for each function, so that they can quickly access the application.
- Portability: The application will run on various Android versions and will be unaffected by the scale of Android phones and tablets.
- The application will be in portrait orientation.

c. Software Requirements

For developer:

- Java SE JDK 8 and above: The Java development kit lays the foundation for the Android SDK.
- Android Studio version 4 and above
- Android SDK-25 and above: Included in Android Studio. Provides access to Android libraries and allows you to develop for Android.
- Operating System (OS): Windows and Ubuntu.
- SQLite:

d. Hardware Requirements

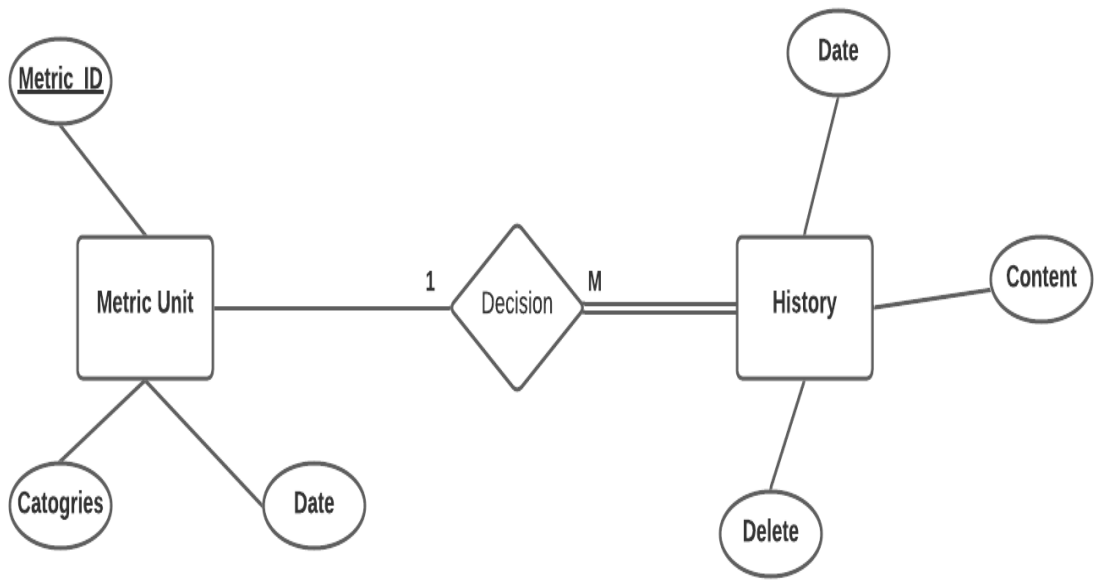
For developer:

- Laptop with minimum 4GB RAM
- 2.00GHz*4 Processor
- 1280 x 800 minimum screen resolution
- Android Smartphone to use as an emulator

For users:

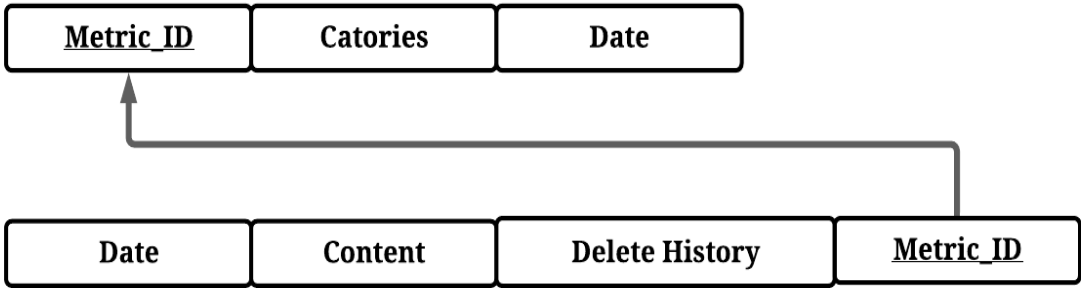
- Android smartphone

Entity Relationship Diagram:

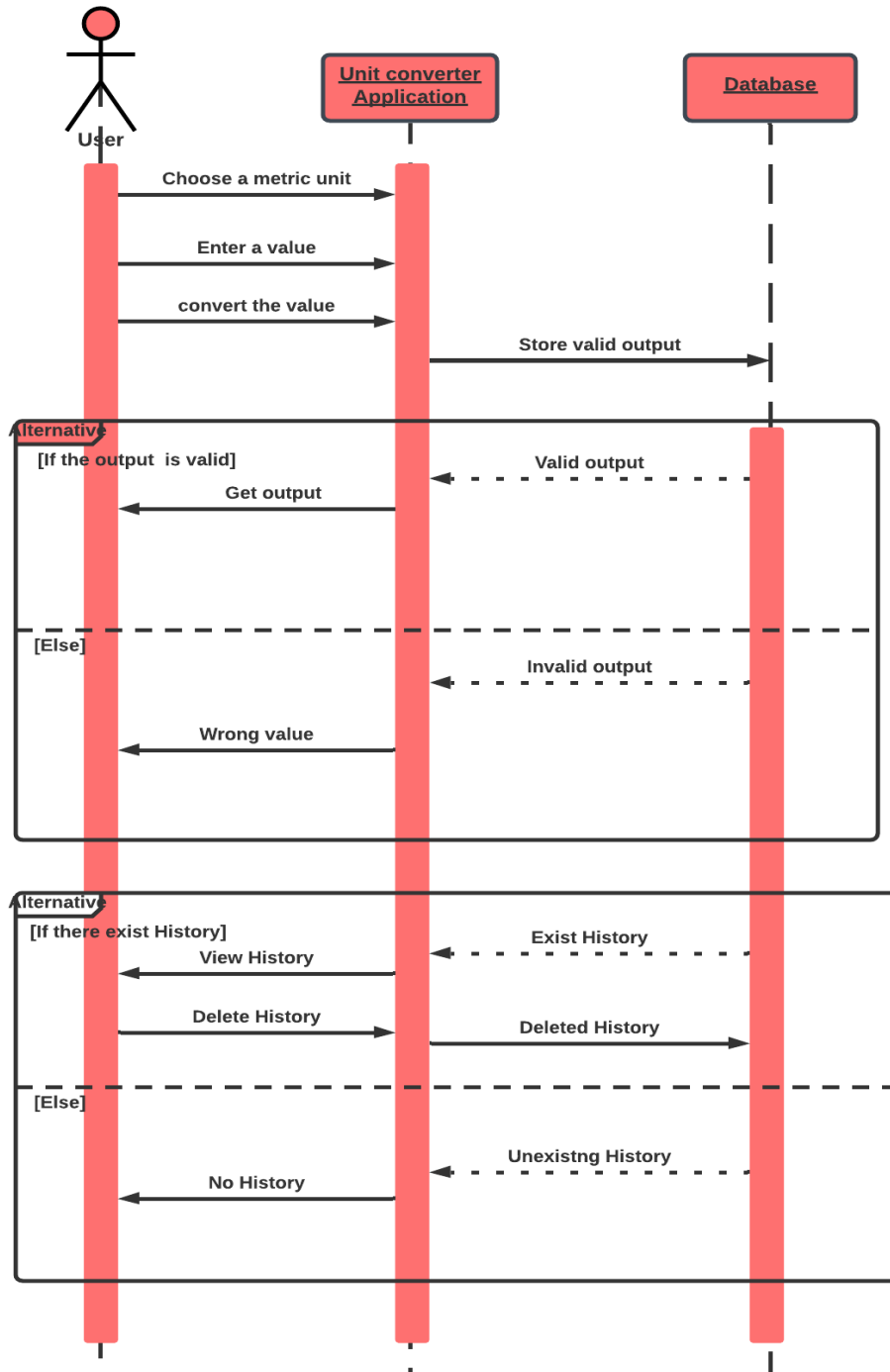


Relation Schema Diagram:

Unit Converter Schema Diagram



Sequence Diagram



Usecase Diagram:

