

SOFTWARE REQUIREMENT SPECIFICATIONS

Project Topic: [BMI]

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Scope:

Limited to Bhutan.

Purpose:

The main purpose of Project BMI is to ease the pen and paper work for calculating and using website which is time consuming.

Aim:

To build android application which calculates BMI (Body Mass Index) and provide feedback based on their BMI values.

Objectives:

The specific objective of this project are:

- **To build android application that will be used by everyone to keep their body healthy** (It is very difficult to maintain healthy body this time and it is very difficult to treat body if it is not healthy. So in this digitalized world many are using android device and android application. Therefore, it will be useful if we build android application (BMI) to keep body healthy).
- **To exclude pen and paper works** (With increasing number of smart phones and android applications, use of paper and pen is excluded. Like that BMI app will be able to calculate BMI value faster than pen and paper).
- **To save time** (Calculating BMI with pen and paper will take time. Moreover, its necessary to know formula for calculating BMI. So with help of BMI app user can calculate BMI fast as well as wherever user is until and unless there is no android mobile).

Requirements:

Functional Requirements:

Features:

User

1. **Sign Up:** All the user has to sign up to create account. The main reason for creating account is to check BMI History of particular user so that user can improve based on BMI history. Sign Up page will take data like name, password and email address. The reason for taking email address is for primary key.
2. **Log In:** After signing in he/she can login giving name as username and followed by password. If user have already account he can login. Log In page has forgot password function with it because user may forget his/her password.
3. **Calculate BMI:** User will have option to Calculate BMI and view BMI history. For Calculate BMI page user have to provide height in meter and weight in kilogram. Moreover, it will take age because there is different BMI for different age range.
4. **Calculate:** There is a Calculate function which calculates BMI using height, weight and age that will show which BMI scale user is lying (underweight (under 18.5 kg/m²), normal weight (18.5 to 24.9), overweight (25 to 29.9), and obese (over 30)). Moreover, this page will provide information like what user have to follow after lying in particular range and show whether it is good for user or not.
5. **View BMI History:** In this page user can view his/her last six BMI calculation. View BMI History will be made because user can improve his/her BMI based on that if he/she is not in good range.
6. **About Me:** There will be about me button which will show about user's information like name and email. More there will be log Out option which it will take you to the login page.

Non-functional Requirements:

Some of the non-functional requirements of our application are:

1. Security

Not all the user will have access to this application as at first they have to be registered and then in order to view their BMI app features they have to login using their user id and the password.

2. Portability

Deals with moving the component from one environment to another.

Application is portable as this application can be used in different platforms as it will be supported and suited in all the platforms of android versions.

3. Usability

Our application is very easy to use as:

Learnability: The users will be able to use application very easily since the direction and naming conventions will be properly written in a simple language that can be understood by anyone.

Memorability: Since our application is not complex as the user doesn't have to learn anything to use application, the users will not face trouble when using our application after long time also.

Software Requirements:

The technology and version to be used for developing this application is

A. Android studio with version:

Version: 4.1.2

Gradle Version: 6.5

B. JDK 15

C. Firebase Real-time Database

Hardware Requirements

Developer requirements:

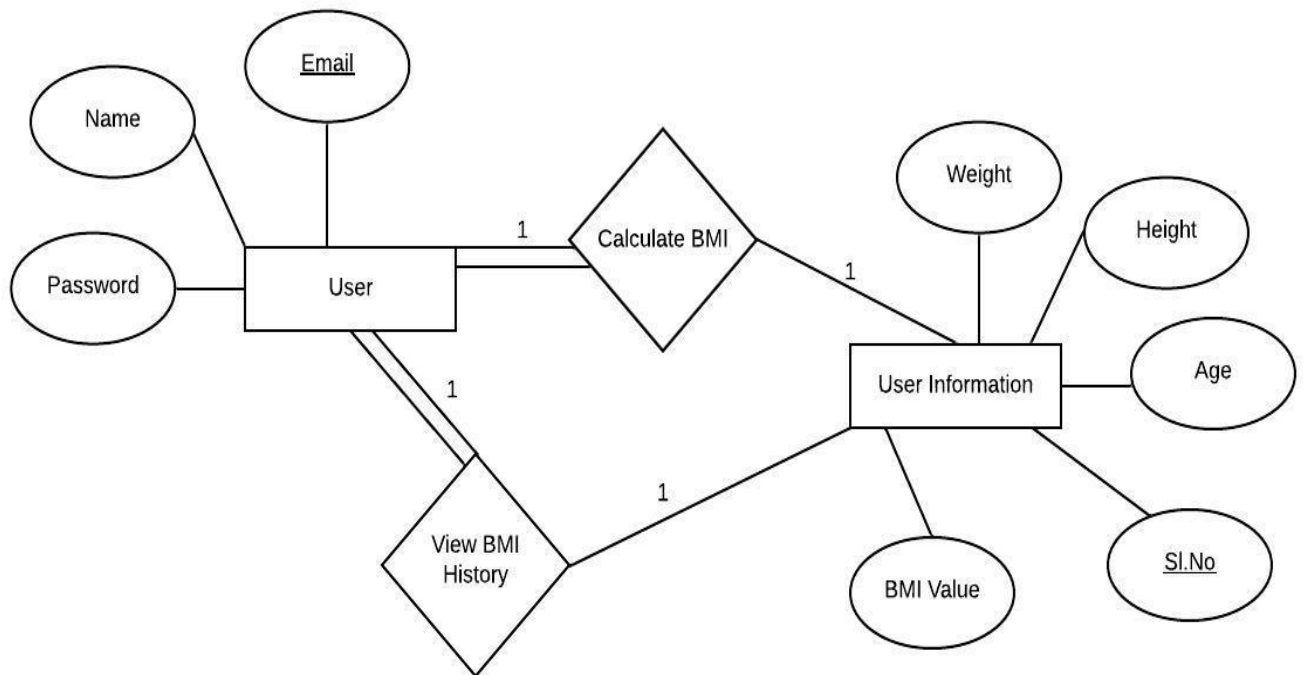
1. Laptop/Desktop (Microsoft Windows 7/8/10 (64 bits)/linux/mac)
2. 4 GB RAM minimum, 8 GB RAM recommended
3. 1280 * 800 minimum screen resolution
4. Processor 2.00GHz * 4
5. Android smart phone (as emulator)

User requirements:

Android smart phone

Internet Connection

a. ERD (Entity Relationship Diagram) of BMI



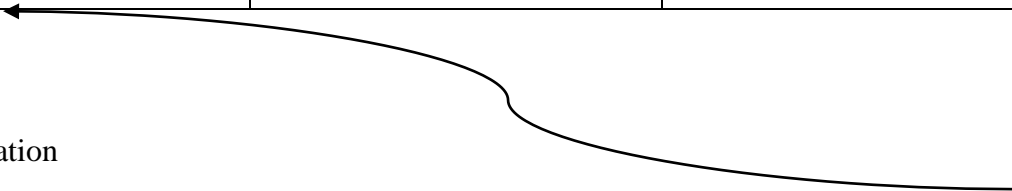
b. Relational Schema

User

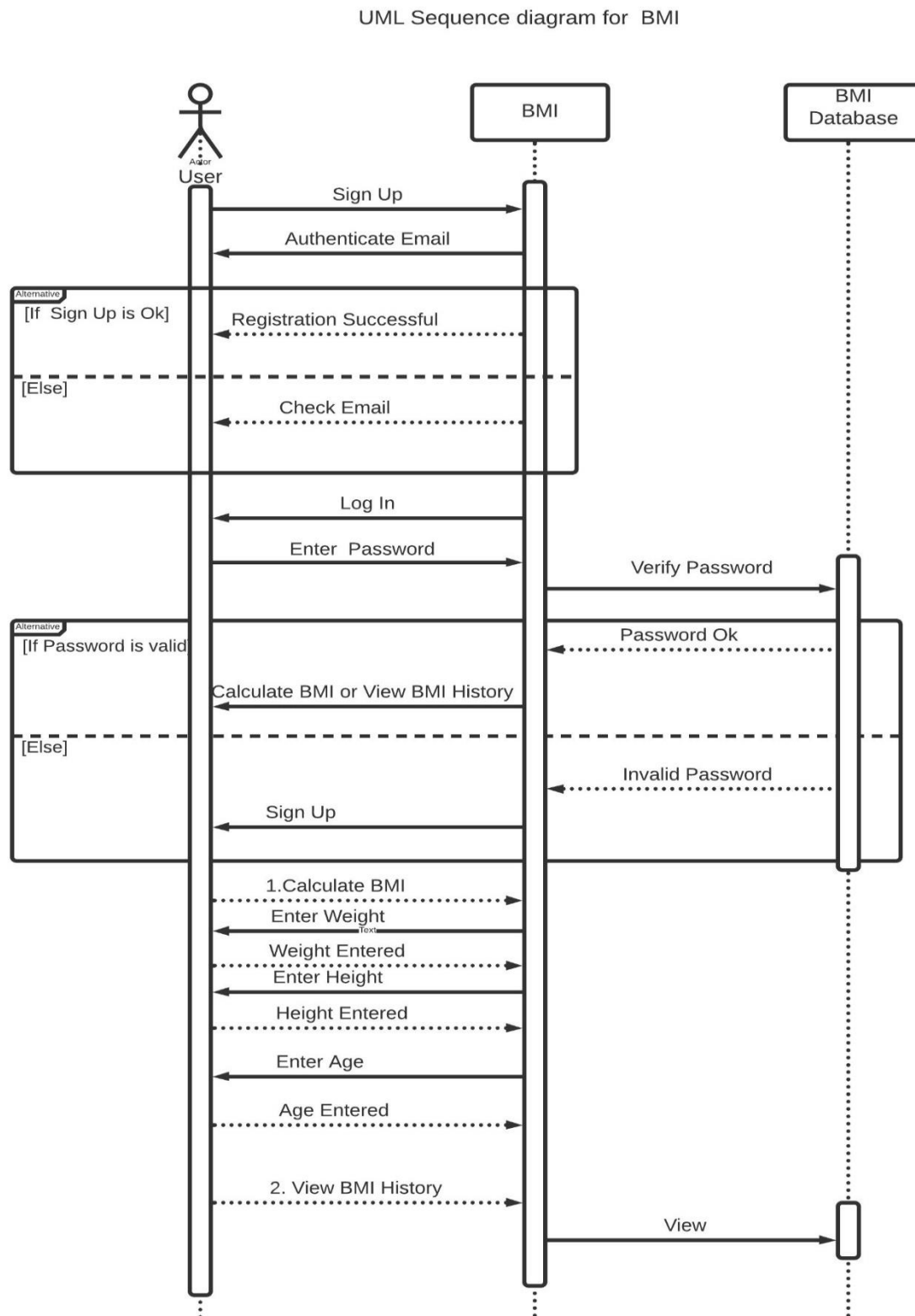
Email	Name	Password
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User Information

Sl.No	Age	Weight	Height	BMI Value	Email(FK)
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c. Sequence Diagram of BMI



d. Use case Diagram of BMI

