A Short Technical Report towards A7607 – Mobile Application Devlopment Course

**BMI Index Calculator**

Submitted in the Partial Fulfillment of the

Requirements

for the Award of the Degree of

**Bachelor of Technology**

**in**

**information technology**

**Submitted**

**By**

**Team No.: XX**

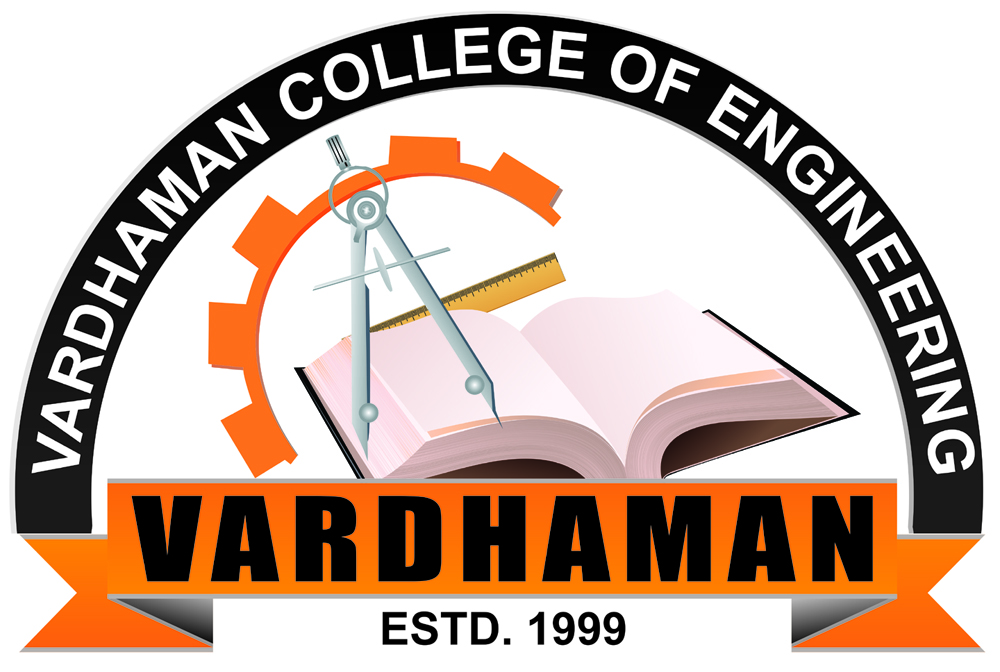
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**Department of Information Technology**

**Vardhaman College of Engineering**

(AUTONOMOUS)

Affiliated to JNTUH, Approved by AICTE, Accredited by NAAC with A++ Grade, ISO 9001:2015 Certified

Kacharam, Shamshabad, Hyderabad – 501218, Telangana, India

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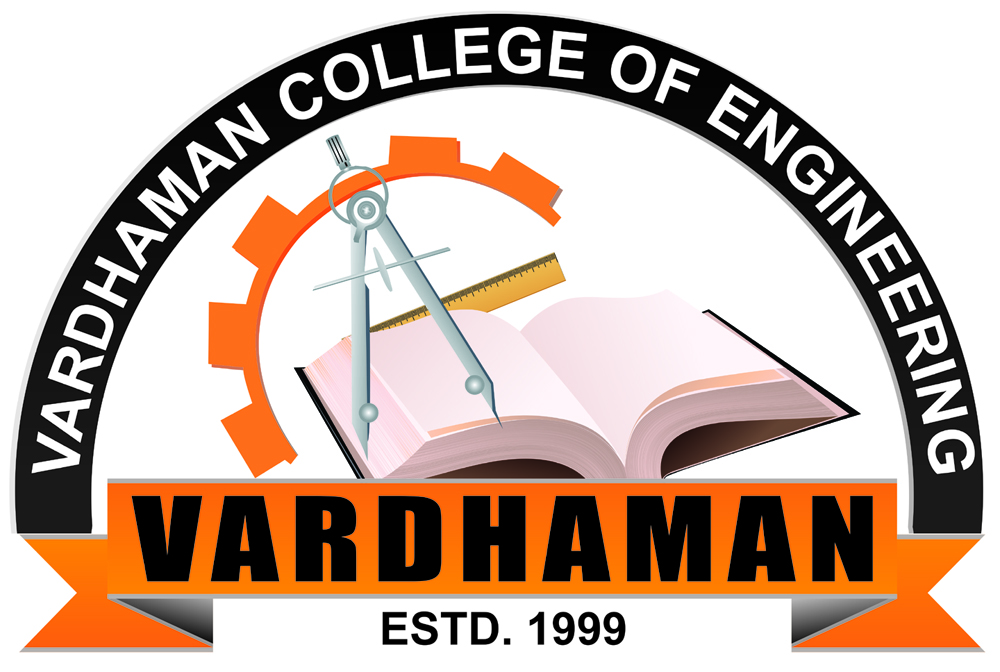
We show gratitude to our honorable Principal **Dr.J.V.R.Ravindra**, for having provided all the facilities and support.

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**CERTIFICATE**

This is to certify that the short technical report work entitled **“BMI Index Calculator”** carried out by Mr. Kumavat Prakash, Roll Number **21881A12A4**, Mr. Pabbathi Maruthi, Roll Number **21881A12B4** towards **A7607- Mobile Application Development** course and submitted to the Department of Information Technology, in partial fulfillment of the requirements for the award of degree of **Bachelor of Technology** in **Information Technology** during the year 2023-24.

**Name & Signature of the Instructor**

**Mrs. T. Prashanthi**

**Assistant Professor**

**Name & Signature of the HOD**

**Dr. G. Suryanarayana**

**HOD, IT**

**Abstract**

The BMI Calculator app described earlier comes with several key features that make it user-friendly and effective. Here are the key features of the BMI Calculator app:

* User-Friendly Interface:

The app provides a clean and intuitive user interface, making it easy for users to input their weight and height.

* BMI Calculation:

The app calculates the Body Mass Index (BMI) based on the user's input for weight and height.

* Health Status Categorization:

It categorizes the calculated BMI into different health status groups, such as Underweight, Normal (Healthy Weight), Overweight, and Obese.

* Result Display:

The app displays detailed results, including the calculated BMI and the corresponding health status, providing users with valuable information about their body composition.

* Input Validation:

The app includes input validation to handle scenarios where users may enter invalid or inappropriate values for weight and height, ensuring accurate BMI calculations.

* Visual Representation:

The app includes a BMI icon for visual representation, enhancing the overall user experience.

* Colorful and Appealing Design:

The user interface features a visually appealing design with a cohesive color scheme, making the app aesthetically pleasing.

* Accessibility:

The app takes into consideration accessibility by providing a clear layout and using appropriate colors for text and background, ensuring a positive user experience for all users.

**CHAPTER 1**

**INTRODUCTION**

* 1. **Motivation**

The motivation for developing a BMI Calculator app lies in addressing the growing concerns related to health and well-being. Here are some motivating factors for undertaking the project:

* **Health Awareness:**

The app contributes to raising awareness about the importance of maintaining a healthy weight and understanding one's Body Mass Index (BMI).

* **Preventive Health Measures**:

By providing a tool to calculate BMI and categorizing health status, the app encourages users to take preventive measures for potential health issues associated with weight.

* **User Empowerment:**

The app empowers users by providing them with a simple yet effective means to assess and monitor their own health, promoting a sense of responsibility for their well-being.

* 1. **Scope**

The scope of the BMI Calculator app project encompasses various aspects related to health assessment, user engagement, and potential future enhancements. Here is an outline of the project's scope:

**BMI Calculation and Health Status:**

The primary focus is on accurately calculating the Body Mass Index (BMI) based on user-provided weight and height.

The app categorizes BMI into health status groups, providing users with valuable insights into their overall health.

**CHAPTER 2**

**PROJECT DESIGN**

**Wireframes:**

Initial wireframes are created to sketch the layout and flow of the app, considering input fields, buttons, and result display areas.

**UI Mockups:**

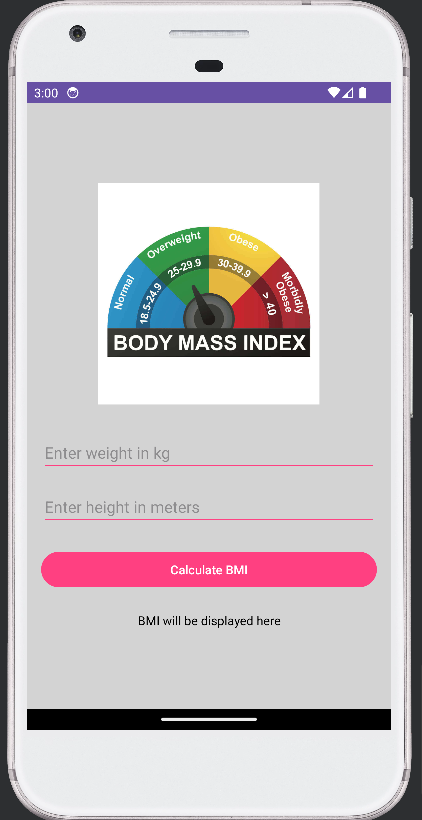
Detailed UI mockups are developed using design tools or graphics software, incorporating colors, icons, and fonts for a polished appearance.

**Visual Elements:**

Utilize visual elements such as icons and images to enhance the overall aesthetic appeal of the app. Select a color scheme that aligns with the app's purpose and creates a positive user experience.

**Responsive Design:**

Ensure the UI is responsive to different screen sizes and orientations, providing a consistent experience across various Android devices.



***Fig: First look***

**CHAPTER 3**

**ARCHITECTURE**

Implement the MVC design pattern to separate concerns and enhance maintainability.

* **Model-View-Controller (MVC) Design:**

Adopt a modular MVC design, separating the user interface (View) from the logic (Controller) and data (Model).

* **Activity and Fragment Design:**

Use separate activities or fragments for distinct app functionalities, such as input, calculation, and result display.

* **Input Validation:**

Implement robust input validation mechanisms to handle invalid user inputs and provide appropriate error messages.

* **BMI Calculation Logic:**

Develop clear and efficient algorithms for BMI calculation, taking into account weight and height inputs.

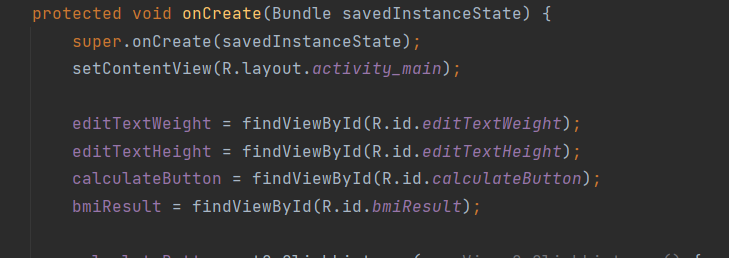
* **Localization:**

Plan for potential internationalization and localization to support multiple languages and regional preferences.

**CHAPTER 4**

**IMPLEMENTATION**

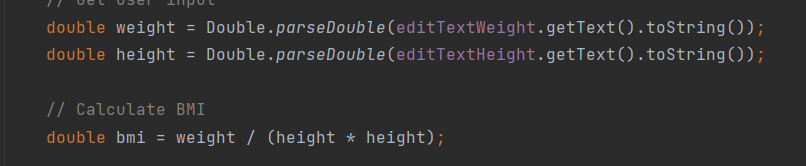
**Taking input of values:**



**Displaying health status:**



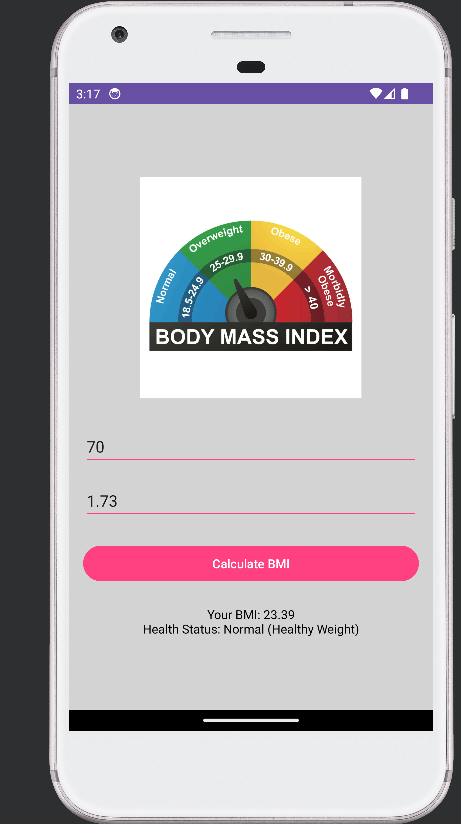
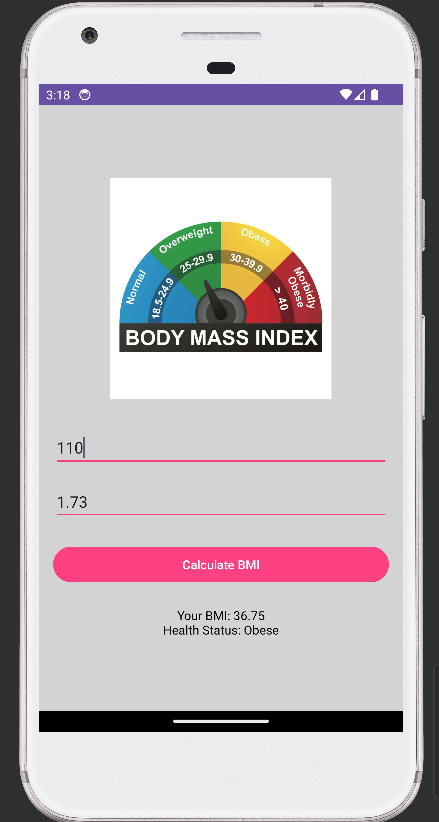
**Calculating BMI:**



**CHAPTER 5**

**RESULTS**

On entering the weight and height values in the application we will be able to see the BMI index of our input values. Our app will also give a message of how our health is i.e; healthy, normal or obese

Above are the images for different output’s where in the first case the person is healthy and another case the person is obese.