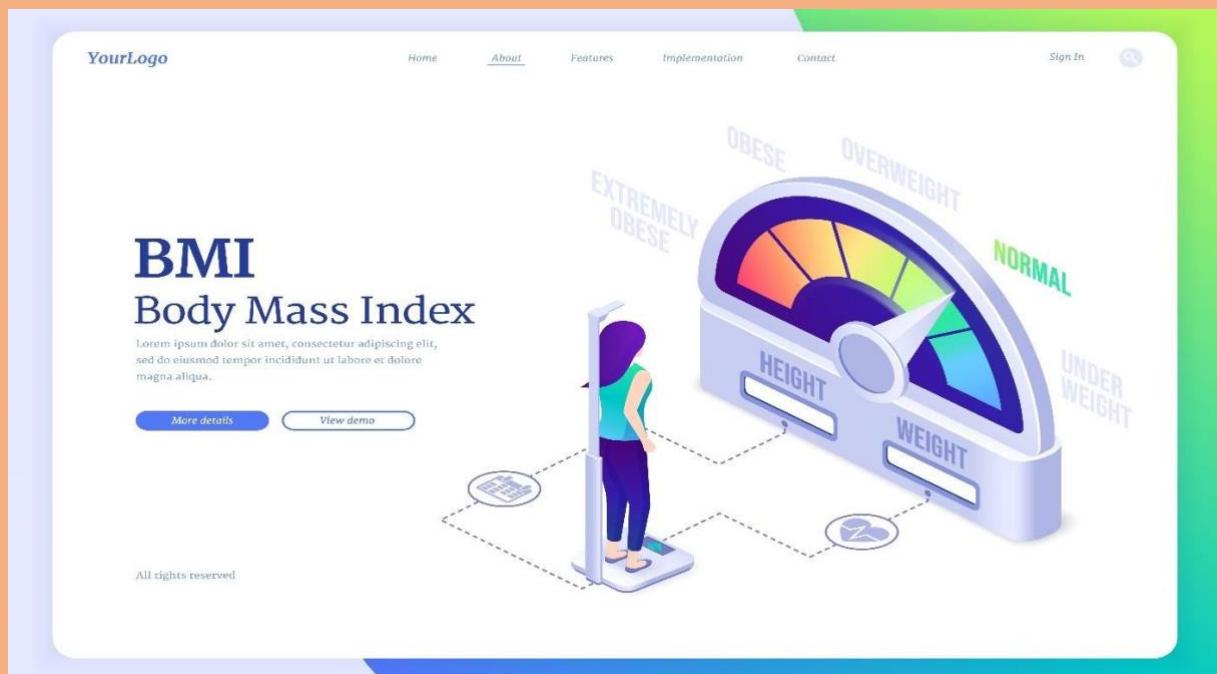


# REPORT OF BMI CALCULATOR

**BMI CALCULATOR MEANS :- THIS IS A WEB-BASED BODY MASS INDEX (BMI) CALCULATOR THAT HELPS YOU CHECK IF YOUR WEIGHT IS HEALTHY FOR YOUR HEIGHT. IT'S LIKE A DIGITAL SCALE THAT CALCULATES YOUR BMI INSTANTLY!**



- **"A quick and reliable screening tool for your weight status."**
- **"Use this tool to determine if your weight falls within the underweight, normal, overweight, or obese range."**
- **"Understand the relationship between your height and weight with our easy-to-use calculator."**
- **"While not a diagnostic tool, your BMI can help you and your healthcare provider assess potential health risks associated with weight."**

**CODE & SYNTAX:-**

```
import streamlit as st
```

```
import pandas as pd
```

```
import matplotlib.pyplot as plt
```

```
import numpy as np from
```

```
datetime import date
```

# WHAT EACH IMPORT DOES:

Import	Purpose	Why It's Needed
streamlit as st	Main framework for web app	Creates the user interface, buttons, input fields, and displays results
pandas as pd	Data handling and manipulation	Stores BMI history, creates data tables, and processes tracking data
matplotlib.pyplot as plt import	Chart and graph creation Purpose	Makes the BMI visualization charts and trend graphs Why It's Needed

numpy as np

Mathematical operations

Helps with calculations and array operations for charting

from datetime import date

Date handling

Gets today's date for tracking BMI history entries

1. Streamlit → The "web page builder" that shows everything on screen
2. Pandas → The "data organizer" that stores your BMI history
3. Matplotlib → The "artist" that draws the charts and graphs
4. NumPy → The "math helper" for calculations
5. datetime → The "calendar" that knows today's date

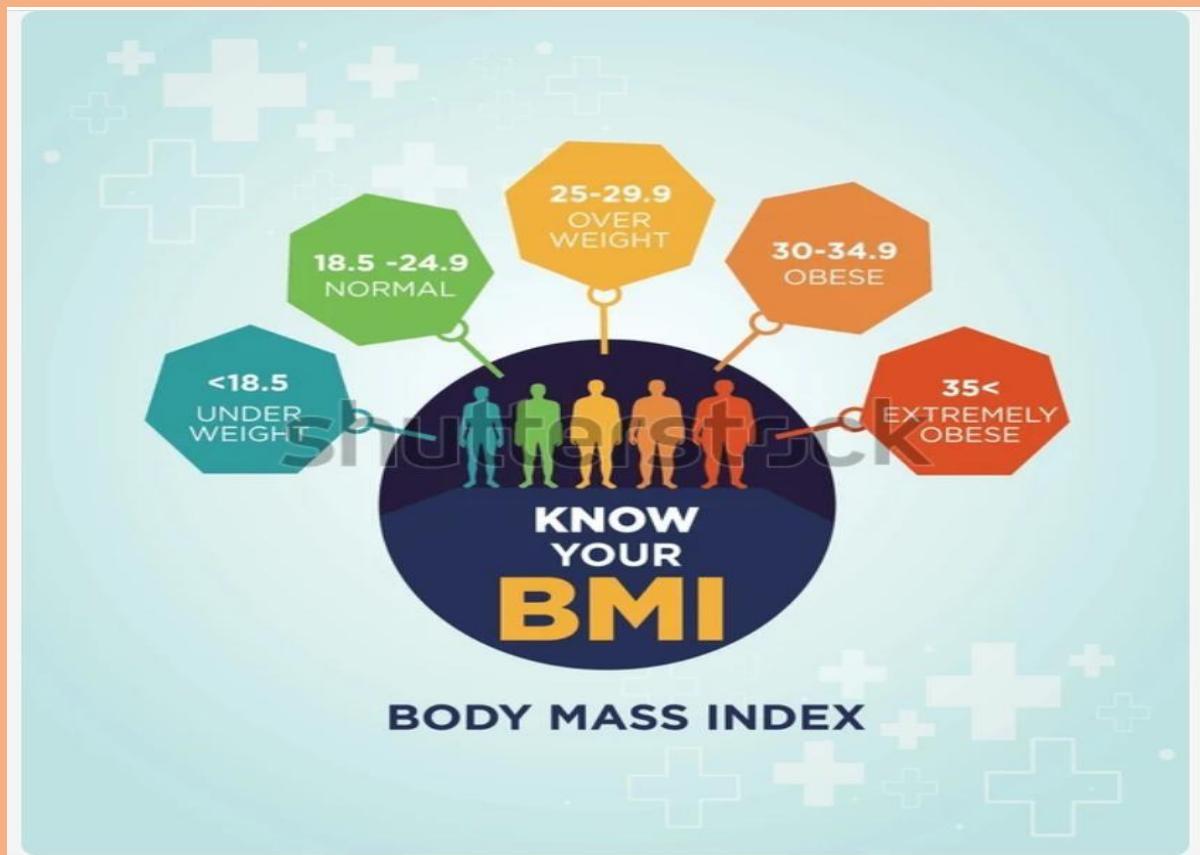
## **INSTALLATION COMMAND:**

```
pip install streamlit pandas matplotlib numpy
```



A screenshot of a code editor showing the file `bmi_calculator.py`. The code implements a BMI calculator using Streamlit's `number_input` function to get user input for weight and height in both metric and imperial units. The code is well-structured with comments explaining the conversion of height from centimeters to meters and weight from pounds to kilograms.

```
bmicalculator.py
123     help="Enter your height in centimeters"
124 )
125     # Convert height to meters for calculation
126     height_m = height / 100
127 else:
128     weight = st.number_input(
129         "Weight (lb)",
130         min_value=44.0,
131         max_value=440.0,
132         value=154.0,
133         step=0.5,
134         help="Enter your weight in pounds"
135     )
136     height = st.number_input(
137         "Height (in)",
138         min_value=39.0,
139         max_value=98.0,
140         value=57.0,
```



## CALL-TO-ACTION

- "Enter your height and weight to get started on your health journey."
- "Calculate your BMI and receive personalized insights into your well-being."
- "Find your healthy weight range today!"
- "Make informed decisions about your health—calculate your BMI now."

## HOW IT WORKS

### 1. The Look and Feel (Frontend)

- Beautiful design with colors that change based on your BMI result:
  - Blue for Underweight
  - Green for Normal weight
  - Yellow for Overweight
  - Red for Obesity
- Easy-to-use -with sliders, buttons, and input boxes
- Works on any device - phone, tablet, or computer

## MAIN FEATURES:-

## **A. BMI Calculation**

- **Two measurement systems:**
  - Metric (kilograms and centimeters) - used in most countries
  - Imperial (pounds and inches) - used in USA
- **Automatic calculation** - just enter your weight and height
- **Instant results** - shows your BMI number and category

## **B. Progress Tracking**

- **Save your history** - keeps track of your BMI over time
- **See your progress** - shows if you're improving
- **Chart visualization** - makes it easy to understand your journey

## **C. Extra Information**

- **Age and gender** - for personalized results
- **Activity level** - from Sedentary to Extremely Active
- **Healthy weight range** - shows your ideal weight for your height

## **SMART FEATURES:-**

### **Memory (Session State)**

- **The app remembers your previous calculations**
- **You can see all your past BMI measurements**
- **You can clear the history if you want**

### **Visual Charts**

- **Bar chart showing all BMI categories**
- **Line chart showing your BMI trend over time**
- **Color-coded for easy understanding**

## **SAFETY AND ACCURACY NOTES:-**

- **BMI doesn't measure everything** - It can't tell muscle from fat
- **Not for everyone** - May not be accurate for:
  - **Bodybuilders (muscle weighs more)**
  - **Pregnant women**
  - **Children**
  - **Very tall or very short people**
- **Always consult a doctor for medical advice**

## **TECHNOLOGY USED:-**

- **Streamlit** - Makes web apps easily
- **Pandas** - Handles data and history
- **Matplotlib** - Creates beautiful charts
- **No installation needed** - Runs completely in your web browser

## **WHY THIS APP IS USEFUL**

- Fast and easy** - Get results in seconds
  - Educational** - Learn about healthy weight ranges
  - Motivational** - Track your progress over time
  - Free and private** - No sign-up, no data sharing
- Mobile-friendly** - Use it anywhere

## **WHO SHOULD USE THIS?**

- **Adults wanting to check their weight status**
- **Fitness enthusiasts tracking their progress**
- **Health-conscious individuals monitoring changes**
- **Anyone curious about their BMI**

**This BMI Calculator is like having a personal health assistant that:**

1. **Calculates your BMI instantly**
2. **Explains what it means**
3. **Tracks your progress**
4. **Educes you about healthy living**
5. **Motivates you to maintain a healthy weight**

