**Project Name: GUI-OF-BMI Calculator:**

**Team Members:**

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**INTRODUCTION**

Body Mass Index (BMI), is a measure of body size. It combines a person's weight with their height. The results of a BMI measurement can give an idea about whether a person has the correct weight for their height.

[BMI](https://www.medicalnewstoday.com/info/obesity/what-is-bmi.php) is a screening tool that can indicate whether a person is underweight or if they have a healthy weight, excess weight, or [obesity](https://www.medicalnewstoday.com/info/obesity/how-much-should-i-weigh.php). If a person's BMI is outside of the healthy range, their health risks may increase significantly.

Carrying too much weight [can lead to](https://www.niddk.nih.gov/health-information/weight-management/health-risks-overweight) a variety of health conditions, such as [type 2 diabetes](https://www.medicalnewstoday.com/info/diabetes/type2diabetes.php), [high blood pressure](https://www.medicalnewstoday.com/articles/159283.php), and cardiovascular problems.

A weigh that is too low can increase the risk of [malnutrition](https://www.medicalnewstoday.com/articles/179316.php), [osteoporosis](https://www.medicalnewstoday.com/articles/155646.php), and [anemia](https://www.medicalnewstoday.com/articles/158800.php). The doctor will make suitable recommendations.

BMI does not measure body fat directly, and it does not account for age, sex, ethnicity, or muscle mass in adults.

However, it uses standard weight status categories that can help doctors to track weight status across populations and identify potential issues in individuals.

**BMI In Adults:**

Calculating BMI involves measuring a person's height and [body weight](https://www.medicalnewstoday.com/info/obesity/how-much-should-i-weigh.php).

***Metric:***

* To calculate BMI in metric units, [use the following](https://www.cdc.gov/healthyweight/assessing/bmi/childrens_bmi/childrens_bmi_formula.html) method: BMI = kg/m**2**
* So, to calculate an adult's BMI: Divide their weight in kilograms (kg) by the square of their height in meters (m**2**)
* Since most people measure height in centimeters (cm), divide height in cm by 100 to get height in meters.

***Imperial:***

* When using imperial units, the formula is: BMI = lbs x 703/in**2**
* In other words: Multiply a person's weight in pounds (lbs) by 703. Then divide by their height in inches, squared (in**2**)
* To avoid using the math, a person can use a calculator or a chart to find their BMI.

**Understanding the Results:**

The following table shows standard weight status categories associated with BMI ranges for adults.

| **BMI** | **Weight status** |
| --- | --- |
| Below 18.5 | Underweight |
| 18.5–24.9 | Healthy |
| 25.0–29.9 | Overweight |
| 30.0 and above | Obese |

**BMI of less than 18.5**

A BMI of less than 18.5 indicates that you are underweight, so you may need to put on some weight. You are recommended to ask your doctor or a dietitian for advice.

**BMI of 18.5–24.9**

A BMI of 18.5-24.9 indicates that you are at a healthy weight for your height. By maintaining a healthy weight, you lower your risk of developing serious health problems.

**BMI of 25–29.9**

A BMI of 25-29.9 indicates that you are slightly overweight. You may be advised to lose some weight for health reasons. You are recommended to talk to your doctor or a dietitian for advice.

**BMI of over 30**

A BMI of over 30 indicates that you are heavily overweight. Your health may be at risk if you do not lose weight. You are recommended to talk to your doctor or a dietitian for advice.

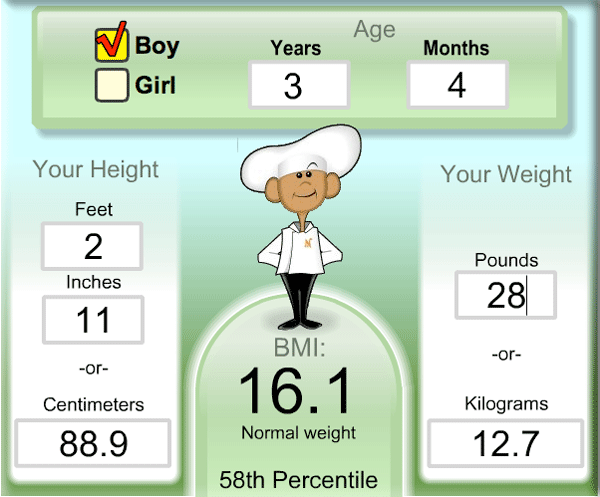
### **What do the results mean?**

The following categories explain the meaning of the results:

|  |  |
| --- | --- |
| **Weight status category** | **Percentile range** |
| Underweight | Below the 5th percentile |
| Healthy weight | 5th percentile to less than the 85th percentile |
| Overweight | 85th to less than the 95th percentile |
| Obesity | Equal to or greater than the 95th percentile |

GUI-OF-BMI Calculator:

BMI calculators represents like this..



AI machine learning analysis

Pyqt5

Filing (Database)

Graph Ploting.

Ml linear prediction model

(simple linear , sk learn , basic linear)