BODY MASS INDEX (BMI) CALCULATOR

Name: MOHD SHOAIB KHAN
Roll no: 2021A1L015
Section: A1
Branch: CSE

INTERNSHIP TRAINING OBJECTIVES :

- ➢ Core of the Python Programming ;
- ✓ Datatype
- ✓ Variables
- ✓ Slicing & Indexing
- ✓Type casting
- ✓Operators
- ✓ Functions & Arguments
- ✓NumPy And Pandas

image source-https://www.technotification.com/2017/05/python-programming-for-hackers.html

PYTHON PROGRAMMING :

- Python is currently the most widely used multi-purpose, high-level programming language.
- Python allows programming in Object-Oriented and Procedural paradigms.
- Python Programming Language is very well suited for Beginners, also for experienced programmers with other programming languages like C++ and Java.

BMI Calculator

Body mass index is a value derived from the mass and height of a person. The BMI is defined as the body mass divided by the square of the body height, and is expressed in units of kg/m^2, resulting from mass in kilograms and height in meters

Abstract:

The BMI Calculator App is a software application which avoids more manual hours that need to spend in personally calculate and find the BMI for a particular person at a single click. This application keeps both the standard in it ie American standard and Indian standard too.This app gives us all the information in both the standards which is not given in existing app.The main scope is to maintain the health. The BMI App gives us all the information ie it gives suggestion for our health and tells us what should we eat and what to avoid. When we enter the height and weight we get all the information ie are we overweight or underweight etc

Background:

- BMI, short for Body Mass Index, is a measure of relative weight based on the mass and height of an individual. We generally use the Body Mass Index in order to categorize people on the basis of their height and weight. These categories are underweight, healthy, overweight, and even obesity. Moreover, it is also adopted by various countries in order to promote healthy eating.
- We can consider Body Mass Index (BMI) as a substitute for direct measurements of body fat. Besides, BMI is a low-cost and easy-to-perform method of screening for weight classes that may cause health-related problems.
- A BMI Calculator accepts the weight and height of an individual and calculates the Body Mass Index (BMI) of that person.
- For Example, if the height and weight of a person are 155 cm and 57 kg. The BMI of that person will be 23.73 (approx.), which signifies that the person is healthy.
- Body Mass Index (BMI) is a measure of body fat on the basis of height and weight, respectively.
- On the basis of the BMI of an individual, the calculator returns a statement stating the overall health of the person.

Background

The following table shows how the classification of BMI is done in order to identify the health status of a person.

S. No.	BMI	Weight Status
1	Below 18.5	Underweight
2	18.5 - 24.9	Normal
3	25.0 - 29.9	Overweight
4	30.0 and above	Obese

Background:

- We will use the following formula in order to calculate BMI :

$$BMI = \frac{weight\ (kg)}{\{height\ (m)\}^2}$$

Technologies :

Python:

Python is a high-level, general-purpose programming language. Its design philosophy emphasizes code readability with the use of significant indentation. Python is dynamically-typed and garbage-collected. It supports multiple programming paradigms, including structured, object-oriented and functional programming.

Tkinter:

Tkinter is a Python binding to the Tk GUI toolkit. It is the standard Python interface to the Tk GUI toolkit, and is Python's de facto standard GUI. Tkinter is included with standard Linux, Microsoft Windows and macOS installs of Python. The name Tkinter comes from Tk interface.

Technologies :

Pycharm IDE:

PyCharm is a dedicated Python Integrated Development Environment (IDE) providing a wide range of essential tools for Python developers, tightly integrated to create a convenient environment for productive Python, web, and data science development.

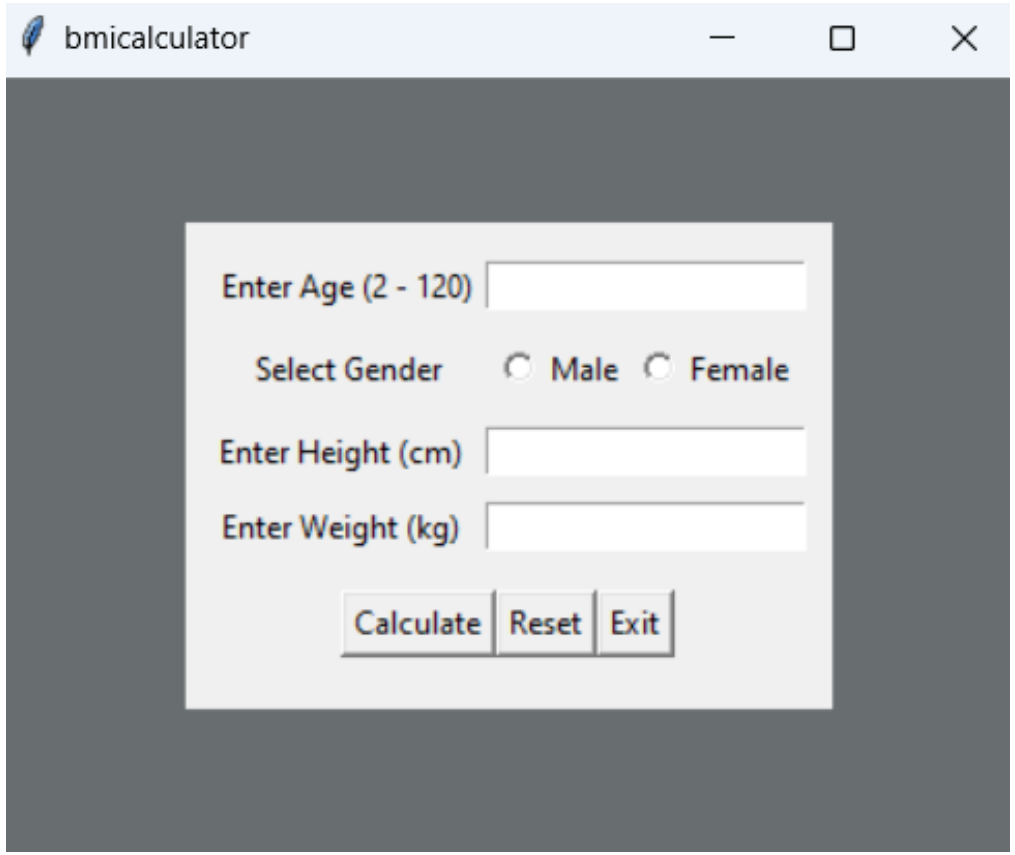
Hardware Requirements:

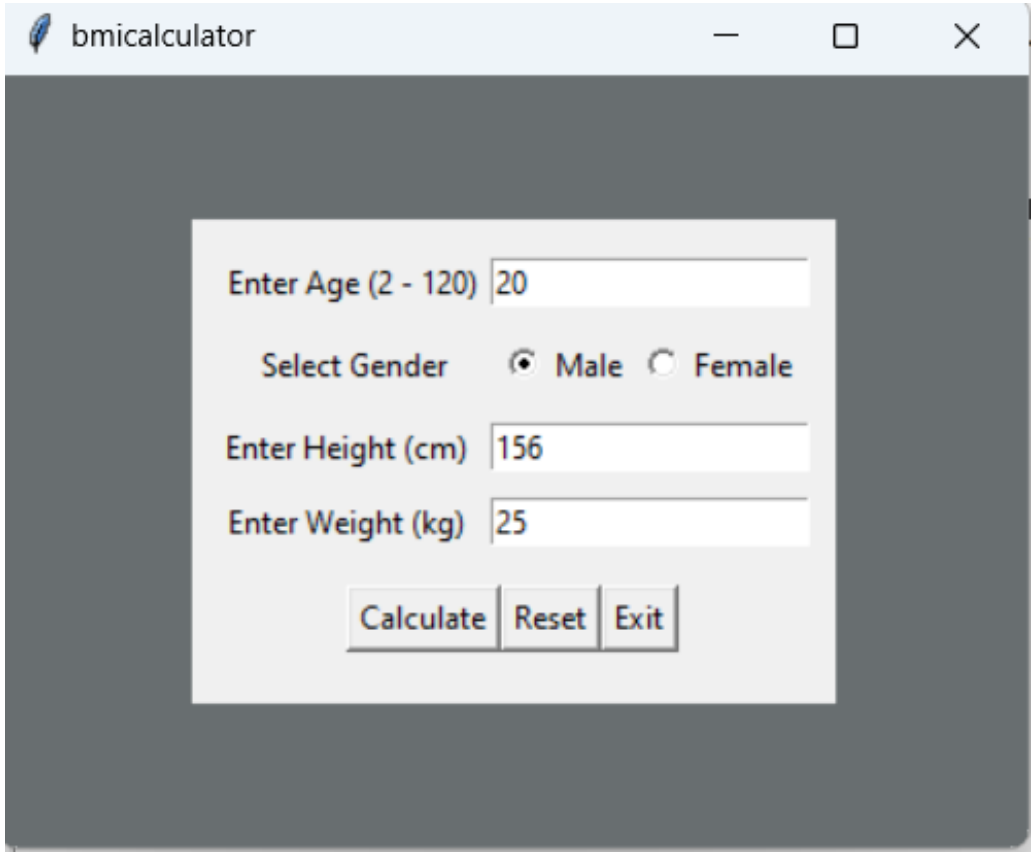
HARDWARE TOOLS	MINIMUM REQUIREMENTS
Processor	i3 or other latest version
Hard Disk	>500GB
RAM	4GB
Monitor	1 coloured
Mouse	1
Keyboard	132 keys

Software Requirements :

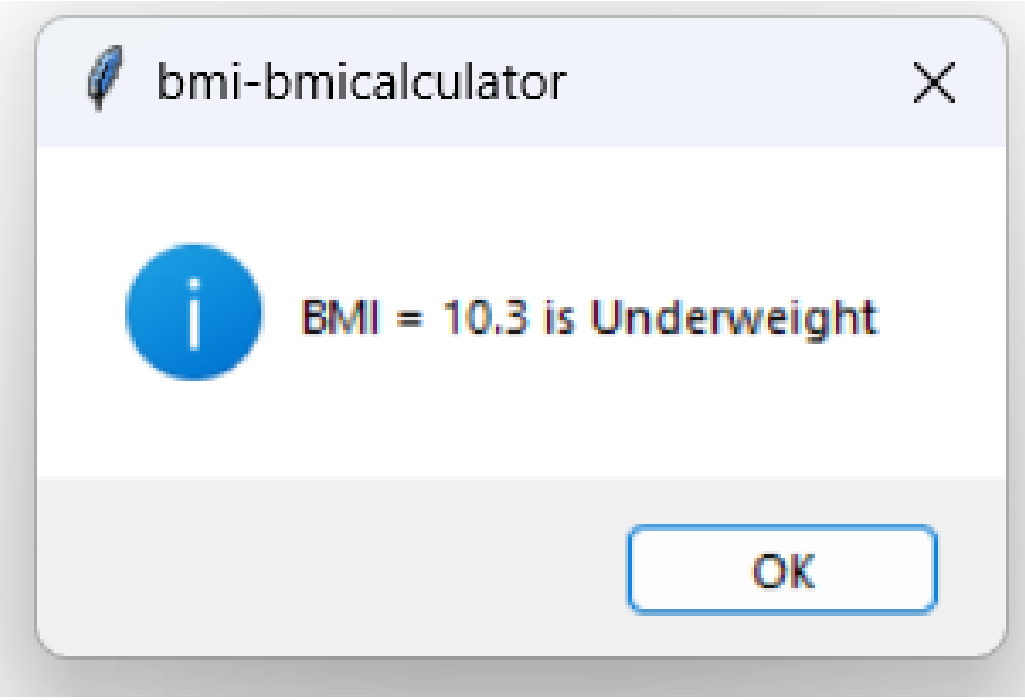
SOFTWARE REQUIREMENTS	**MINIMUM REQUIREMENTS**
Technology	Python Tkinter
Scripting Langauge	Python
IDE	Pycharm

Output Screenshots:





Output Screenshots:



Future Scope:

This application avoids the manual work and the problems concern with it. Centralized management of the database &one app to manage the BMI Calculator of the different section of the female/male etc.Well I and my team member have worked hard in order to present an improved project/app better than the existing one’s regarding the information about the various activities. Still, we found out that the project can be done in a better way. We can add alter message to her/him to eat and excise.

Conclusion:

The package was designed in such a way that future modifications can be done easily. The following conclusions can be deduced from the development of the project. Automation of the entire system improves the efficiency It provides a friendly graphical user interface which proves to be better when compared to the existing system. It gives appropriate access to the authorized users depending on their permissions.

It effectively overcomes the time complexity. Updating of information becomes so easier. System security, data security and reliability are the striking features. The System has adequate scope for modification in future if it is necessary.

REFERNCES:

1)Python Programming (https://docs.python.org/3/)

2)Tkinter (https://docs.python.org/3/library/tk.html)

3)BMI Calculator (https://www.calculator.net/bmi-calculator.html)


Thank
You!