

BM BMI CALCULATOR 8 INFORMATION ČENTER

Team Name: About BMI

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APPLICATION & PROBLEM STATEMENT



The goal of this project is to create a BMI Calculator with a GUI using Java/JavaFX. While most people in the United States are familiar with the term "BMI" (Body Mass Index), several of those people may not understand what that is, or why it is important. "Find My BMI" serves to create a user-friendly BMI calculator, and provide information stating what exactly BMI is, why it is important, and ways in which it can be managed.

PROGRAM FUNCTIONS

RESPONSIBILITIES

Upon opening the application, the user is prompted to provide their height (inches) and weight (pounds), followed by a button to calculate their exact body mass index, and what category they are placed in (Underweight, Normal, Overweight, Obese).

Additionally, the user will have the option to click "Learn More". This will direct the user to a second stage stating what BMI is, and why it matters. On the second stage, there will be an additional button called "Managing BMI", which will direct the user to a third stage explaining healthy eating habits and lifestyle tips. Throughout the program, the user will have the option to go to the next page, or return to a previous one as many times as they would like.

✓ User Class:

This class stores the user's height and weight as a double, and implements methods to get and set the height and weight.

/BMICalculator Class:

This class takes the user's height and weight, defines four conditionals based on user input, and returns the user's BMI and BMI category.

BMIApp Class:

This class is the application's main logic.

It derives information from the

BMICalculator Class, and presents the

user's results within the GUI along with

buttons that allow the user to navigate

between pages.

UML CLASS DIAGRAM

User

-height: double

-weight: double

+User(height: double, weight: double)

+getHeight()::double

+setHeight(Height: double)::void

+getWeight()::double

+setWeight(weight: double) : : void

BMICalculator

+BMICalculator()

+calculateBMI(user: User) : : double

+getBMICategory(bmi: double) : : string

App

-heightField: TextField -weightField: TextField -resultLabel: TextField -heightLabel: Label -weightLabel: Label -heightBox: HBox -weightBox: HBox

-calculateButton: Button -learnMoreBtn: Button

-layout: VBox -backBtn1: Button -whatIsBMI: Text -bmiInformation: Text -whyImportant: Text -manageBMIBtn: Button

-stage3: Stage -backBtn2: Button

-manageBMIInformation: Text

-disclaimer: Text -layout3: VBox -layout2: VBox

+start(primaryStage: Stage) : : void +createUI(stage: Stage) : : void

+handle(event: javafx.event.ActionEvent) : : void

-handleCalculate() : : void

+displayResults(bmi: double, category: string) : : void

+getBMILabel(bmi: double) : : String

+getCategoryLabel(category: String) : : String

WHATIHAVE LEARNED



GUI/JavaFX

Throughout the time it has taken for me to develop this project, I have learned a lot about GUI using scene builder and JavaFX, and and the essentially endless opportunities that JavaFX presents.

Better Understanding of Event Handling Using JavaFX to develop and execute a program using user input has allowed me to gain a better understanding of event handling in Java. This is largely due to the clear presentation of user input and the returned results within the GUI.

3 Improved Skills

As I worked on my project, I ran into a few errors. Taking the time to work on these errors has allowed me to improve my coding skills drastically.

Thank You!

Stand by For Demonstration