using System;

namespace QualityAssuranceTestCalories

{ }

class Calculation

{

static void Main(string[] args)

{

genderCheck();

weightCheck();

calorieCalc();

getUserMacros();

Console.Write("\nThanks for Using Calorie Calculator...");

}

public static int weight, multiplier, numCalories;

//gender is needed to be inputted

private static void genderCheck(bool onlyLetters = false)

{

Console.Write("Do you identify as a man or a woman?\n");

string gender = Console.ReadLine();

for (int i = 0; i < gender.Length; i++)

{

if (gender == "Male" || gender == "male" || gender == "Female" || gender == "female")

{

onlyLetters = true;

Console.WriteLine("You identify as a " + gender.ToLower() + ".\n");

break;

}

else

{

onlyLetters = false;

}

}

if (onlyLetters == false)

{

Console.WriteLine("Please enter the gender you identify as.\n");

genderCheck();

}

}

//Ideal weight needs to be entered

private static void weightCheck()

{

Console.Write("Enter you ideal weight in lbs.\n");

string lbs = Console.ReadLine();

int.TryParse(lbs, out weight);

Console.Write("Your ideal is " + weight + " lbs.\n");

}

//Calculates macros of the user

private static void calorieCalc()

{

Console.Write("\nDetermine specific diet desired.\n");

Console.Write("\nDetermine a calorie multiplier between 10 and 20:\n");

string multSelect = Console.ReadLine();

//Converts multiplier to integer

int.TryParse(multSelect, out multiplier);

Console.Write("Your multiplier is " + multiplier + ".\n");

numCalories = weight \* multiplier;

Console.Write("\nYour Calorie consumption should be" + numCalories + " calories per day.\n");

Console.Write("\nEnter the percentages of each nutriet category (must add up to 100%).\n");

}

private static void getUserMacros()

{

//Gets protein percentage from user

Console.Write("Protein: ");

string proteinNumber = Console.ReadLine();

float proteinPercent;

float.TryParse(proteinNumber, out proteinPercent);

//Gets the carb percentage from user

Console.Write("\nCarbohydrates: ");

string carbNumber = Console.ReadLine();

float carbPercent;

float.TryParse(carbNumber, out carbPercent);

//Gets the fat percentage from user

Console.Write("\nFat: ");

string fatNumber = Console.ReadLine();

float fatPercent;

float.TryParse(fatNumber, out fatPercent);

//Verifies user input adds up to 100%

if (proteinPercent + carbPercent + fatPercent != 100)

{

Console.Write("\nSorry! Your selected percentages must add up to 100%. Please try again.\n");

getUserMacros();

}

else

{

//Calculate Protein Numbers

float proteinCalories = numCalories \* (proteinPercent / 100);

float proteinGrams = proteinCalories / 4;

//Calculate Carb Numbers

float carbCalories = numCalories \* (carbPercent / 100);

float carbGrams = carbCalories / 4;

//Calculate Fat Numbers

float fatCalories = numCalories \* (fatPercent / 100);

float fatGrams = fatCalories / 9;

Console.Write("\nYour recommended macronutrient distribution:\n\n");

Console.Write("Protein: " + proteinCalories + " calories (" + proteinGrams.ToString("#.##") + "g)\n");

Console.Write("Carbs: " + carbCalories + " calories (" + carbGrams.ToString("#.##") + "g)\n");

Console.Write("Fat: " + fatCalories + " calories (" + fatGrams.ToString("#.##") + "g)\n");

}

}

}

}