def calculate\_bmr(gender, weight, height, age):

   if gender == 'male':

       return 88.362 + (13.397 \* weight) + (4.799 \* height) - (5.677 \* age)

   elif gender == 'female':

       return 447.593 + (9.247 \* weight) + (3.098 \* height) - (4.330 \* age)

   else:

       raise ValueError("Gender must be 'male' or 'female

def calculate\_tdee(bmr, activity\_level):

   activity\_factors = {

       'sedentary': 1.2,

       'lightly\_active': 1.375,

       'moderately\_active': 1.55,

       'very\_active': 1.725,

       'extra\_active': 1.9

   }

if activity\_level in activity\_factors:

       return bmr \* activity\_factors[activity\_level]

   else:

       raise ValueError("Invalid activity level")def main():

   try:

       # User input for personal details

       gender = input("Enter your gender (male/female): ").lower()

       if gender not in ['male', 'female']:

           raise ValueError("Invalid gender. Please enter 'male' or 'female'.")

  }

weight = float(input("Enter your weight (kg): "))

       height = float(input("Enter your height (cm): "))

       age = int(input("Enter your age: "))

       activity\_level = input("Enter your activity level (sedentary/lightly\_active/moderately\_active/very\_active/extra\_active): ").lower()

       # Validating the activity level

       valid\_activity\_levels = ['sedentary', 'lightly\_active', 'moderately\_active', 'very\_active', 'extra\_active']

       if activity\_level not in valid\_activity\_levels:

           raise ValueError("Invalid activity level. Please enter one of the following: sedentary, lightly\_active, moderately\_active, very\_active, extra\_active.")

# Calculating BMR

bmr = calculate\_bmr(gender, weight, height, age)

# Calculating TDEE

tdee = calculate\_tdee(bmr, activity\_level)

# Display the result

       print(f"Your Basal Metabolic Rate (BMR) is: {bmr:.2f} calories/day")

       print(f"Your Total Daily Energy Expenditure (TDEE) is: {tdee:.2f} calories/day")

   except ValueError as e:

       print(e)

if \_\_name\_\_ == "\_\_main\_\_":

   main()