Mini data collection program

Take a look at the code below. Read it carefully and try to make a prediction about what might happen when this code is executed.

```
1   print("What is your first initial?")

2   initial = input()

3   print("What is your surname")

4   surname = input()

5   print("What is your age?")

6   age = int(input())

7   print("True or False - you like marmite")

8   likes_marmite = input()

9   marmite = "True"

10  decades = float((age / 10))

11  print(f"Well hello {initial} {surname}.")

12  print(f"It is {likes_marmite==marmite} that you like
    marmite.")

13
```

```
print(f"This is probably because you are {decades}
decades old")
```

Write your prediction in the box below:

Run

Open and **run** the file with this code. Here's a <u>copy of the code</u> if needed.

Was your prediction correct? Did anything unexpected happen? Write down your thoughts below:

Investigate

Questions/activities	Your answers ▽
What data type is being collected at line 2?	
Run the program and type more than 1 character when asked for your first initial. What happens?	
Why do you think this is?	
Does Python have a function for char? Take a look at this link and read the documentation carefully: Built in Functions	
Run the program and type in some string (text) when you are asked for your age. What happens?	

Why do you think this happens?

Run the program and type in all lower case **true** when asked if you like marmite. What happens to the marmite message?

Run the program and type in **True** when asked if you like marmite. What happens to the marmite message?

Run the program and type in **hello** when asked if you like marmite. What happens to the marmite message?

Line 12 contains the following piece of code `likes_marmite == marmite"`. What do you think might be happening here?

Run the program and type 9 when you are asked for your age. What happens?

On line 10, the forward slash / is being used between the variable age and the number 10. What arithmetic operation is the forward slash performing?

On line 10, change the word `float` to `int`. Run the code and type in 9 as your age. What happens?

Keeping line 10 as `int`. Run the code and type in 28 as your age. What happens?

What do you think is happening when the number
is held as an integer compared to a float?

Modify

Modification	Hint
The age must be entered as a number on line 6. Use `try` and `except` to remind the user that they must enter a number.	Sample code:

```
print("Enter a number")

try:

    number = float(input())

except ValueError:

    print("You must enter a
number")

    number = float(input())
```

Explorer task

Create a new program for a gym membership. Try to use all of the techniques used in this activity in your new program.