Tip Calculator

The program asks you few questions and generates bill value to be paid per person while the cost is split between a group. With the total bill value, tip percentage and total number of people (between whom the bill has to be split) taken as inputs, this piece of code uses Python concepts such as type checking, mathematical/ arithmetic operations and f-strings to calculate bill value per person.

TIP CALCULATOR

100 Days of Code- Python
Day 2

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Project Details

Input Variables

1. Total bill payment value
2. Tip percentage
3. Number of guests/persons

Logic Development

We input the total payment value. We input the tip percentage. We calculate the tip percentage on the total payment value to calculate tip. We then add this tip to the total payment value to get the final value. We input the total number of guests. We divide the final value by the total number of guests to calculate bill payment value per person.

Python Concept Used

The variable types can be known using Python's own *'type()'*. The 'type()' can be used at runtime for the debugging purpose to identify the exact variable types in the program. Let's look at the type of some variables in the example below.

```python
my_var = 12
print(type(my_var))
```

The above code will give output as 'int'. Since the data type of the variable is integer where 'type()' plays a role in identifying it.

The *arithmetic operators* are addition (+), subtraction (-), multiplication (*), division (/), exponent (**), floor division (//) and modulus (%).

Every *f-string* statement consists of two parts, one is character f or F, and the next one is a string which we want to format. The string will be enclosed in single, double, or triple quotes. The variables in the curly { } braces are displayed in the output as a normal print statement.

```python
## declaring variables
name = "Datacamp"
type_of_company = "Educational"

## enclose your variable within the {} to display it's value in the output
print(f"{name} is an {type_of_company} company.")
```
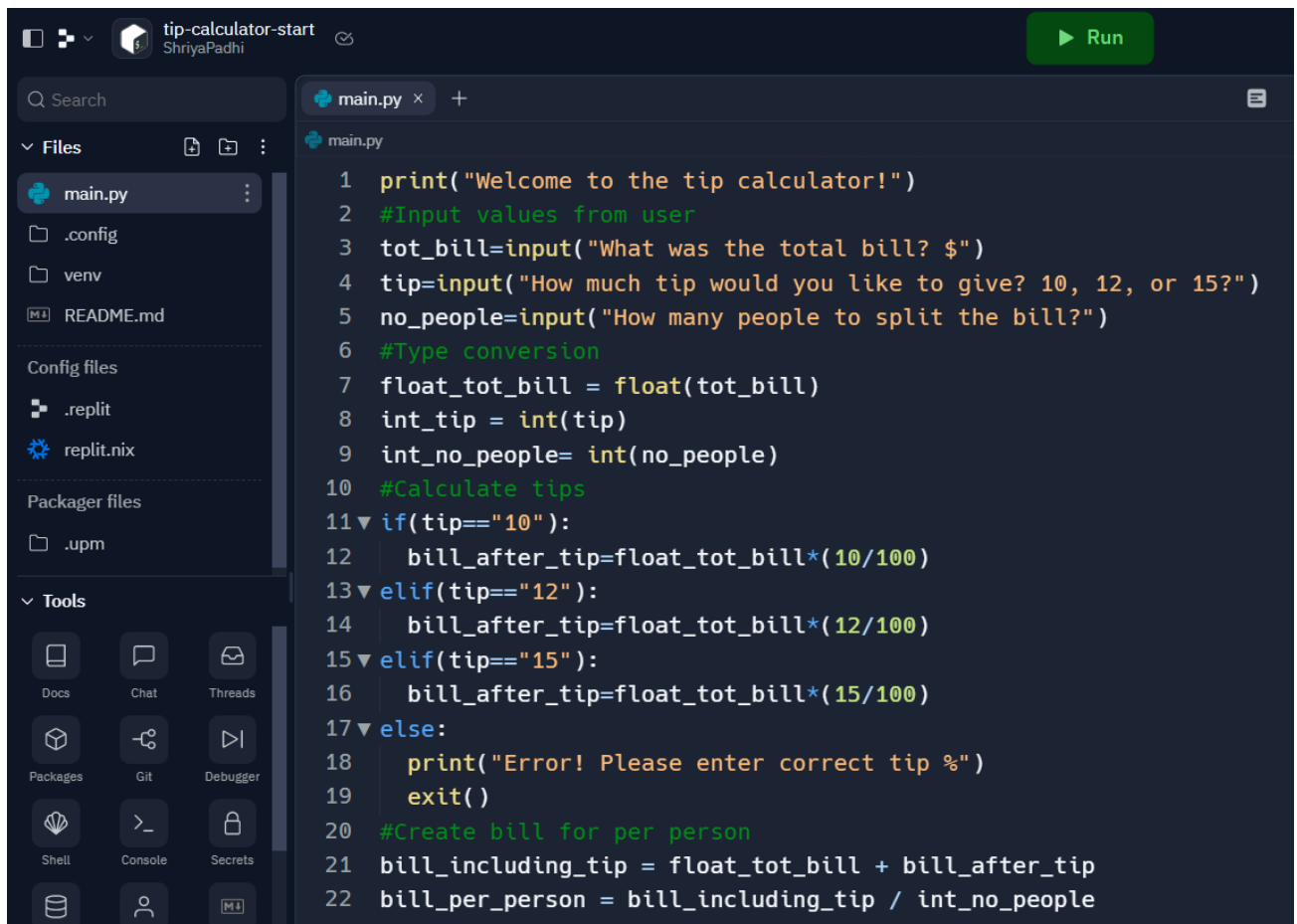
Why Tip Calculator?

A tip or gratuity is an extra sum of money paid to certain service workers for a provided service. Tip amounts, as well as acceptance, vary in different parts of the world. In some countries in East Asia, such as Japan, tips are seen as insulting and can sometimes be interpreted as a bribe. In yet other countries, such as the United States, tipping is widely expected, and in many cases, is even factored into a service worker's compensation towards satisfying the minimum wage requirement. This is important to note, since although tipping is entirely voluntary, many servers depend on tips to make a living in countries like the United States. As such, as a tourist, it can be helpful to research the tipping customs in the countries being visited. In the U.S. or any other country where tipping is expected, depending on the restaurant or the number of patrons at a table, gratuity may be automatically applied to the bill amount. As previously mentioned, tipping can be offensive in some countries, so although a citizen of the United States that is visiting another country may want to express their appreciation of the service provided, the gesture may, in some cases, result in the opposite effect. The Tip Calculator calculates tip amount for various percentages of the cost of the service, and also provides a total amount that includes the tip. In the U.S., a tip of 15% of the before tax meal price is typically expected.

https://www.calculator.net/tip-calculator.html

My Code

tip-calculator-start
ShriyaPadhi

▶ Run

Q Search

∨ Files

main.py

main.py ×   +

main.py

```python
1   print("Welcome to the tip calculator!")
2   #Input values from user
3   tot_bill=input("What was the total bill? $")
4   tip=input("How much tip would you like to give? 10, 12, or 15?")
5   no_people=input("How many people to split the bill?")
6   #Type conversion
7   float_tot_bill = float(tot_bill)
8   int_tip = int(tip)
9   int_no_people= int(no_people)
10  #Calculate tips
11  if(tip=="10"):
12      bill_after_tip=float_tot_bill*(10/100)
13  elif(tip=="12"):
14      bill_after_tip=float_tot_bill*(12/100)
15  elif(tip=="15"):
16      bill_after_tip=float_tot_bill*(15/100)
17  else:
18      print("Error! Please enter correct tip %")
19      exit()
20  #Create bill for per person
21  bill_including_tip = float_tot_bill + bill_after_tip
22  bill_per_person = bill_including_tip / int_no_people
```

Files
main.py
.config
venv
README.md

Config files
.replit
replit.nix

Packager files
.upm

∨ Tools

Docs   Chat   Threads

Packages Git   Debugger

Shell   Console   Secrets

```
23    final=round(bill_per_person,2)
24    print(f"Each person should pay: ${final}")
```

>_ Console ✕   🐚 Shell ✕   +

```
Welcome to the tip calculator!
What was the total bill? $124.56
How much tip would you like to give? 10, 12, or 15?12
How many people to split the bill?7
Each person should pay: $19.93
```

https://replit.com/@ShriyaPadhi/tip-calculator-start#main.py