

QUESTION 4

Background:

In the American monetary system, they have the following common units:

Coins:

- A *penny* is 1¢
- A *nickel* is 5 *pennies*
- A *dime* is 10¢ (cents) or a combination of pennies and nickels
- A *quarter* is 25¢ (cents) or a combination of *dimes*, *nickels*, and *pennies*

One *dollar* is worth 100¢ (cents).

Bills:

- 1 *dollar* bill
- 5 *dollar* bill
- 10 *dollar* bill
- 20 *dollar* bill
- 50 *dollar* bill
- 100 *dollar* bill

dollar amount will be specified as a two decimal digit value, where the decimal digits will indicate the number of cents. For example, 63.65\$ can be broken down into

- 1 × 50 dollar bill, total: 50
- 1 × 10 dollar bill, total: 60
- 3 × 1 dollar bills, total: 63
- 2 × quarters, total: 63.50
- 1 × dime, total: 63.60
- 1 × nickel, total: 63.65

Problem Statement:

- Write a Python program that converts a given dollar amount to any correct combination of the above units of money, assuming there is infinite supply of each.
- Your program should take a two decimal digit dollar amount as input and output a list of how many of each of the above units of money it can be broken down into, as demonstrated with the example below.
- Whatever money unit has zero value should not be printed out.
- Once the messages about the cent amounts start, the total must be printed out as a floating-point value with two decimal digits.
- For example, here's an example run session:

```
Input the amount of money: 87.63
1 50 dollar bill(s), Total=50
1 20 dollar bill(s), Total=70
1 10 dollar bill(s), Total=80
1 5 dollar bill(s), Total=85
2 1 dollar bill(s), Total=87
2 quarter(s), Total=87.50
1 dime(s), Total=87.60
3 cent(s), Total=87.63
```