

Expense Calculator

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Scope of POC

Read the salary from the user and calculate the monthly expenditure using expense calculator

Required Software:

- Python Idle,
- Python Version above 3.5

Over view:

python-tabulate

Pretty-print tabular data in Python, a library and a command-line utility.

The main use cases of the library are:

- printing small tables without hassle: just one function call, formatting is guided by the data itself

- authoring tabular data for lightweight plain-text markup: multiple output formats suitable for further editing or transformation
- readable presentation of mixed textual and numeric data: smart column alignment, configurable number formatting, alignment by a decimal point

Installation

To install the Python library and the command line utility, run:

```
pip install tabulate
```

User_defined_exception

To handle the InsufficientFunds, InvalidInputException in the program

Code:

```
from user_defined_exception import *
from tabulate import *

def expense_calc(salary,expenditure_data,temp_salary):
    expense_calc=[]
    expense_calc.append(['salary',salary])
    for expenditure_name,expenditure_amount in expenditure_data.items():
        expense_calc.append([expenditure_name,expenditure_amount])
    else:
        expense_calc.append(['total',sum(expenditure_data.values())])
        expense_calc.append(['balance',temp_salary])
    print (tabulate(expense_calc))

try:
    salary=input("Enter salary :").strip()
```

```
invalid_input_count = 0
temp_str_salary=salary.replace(".", "")
while not(temp_str_salary.isdecimal()) or salary=="0":
    invalid_input_count += 1
    if invalid_input_count<5:
        salary=input("Please Enter Valid Input:").strip()
        temp_str_salary=salary.replace(".", "")
    else:
        raise InvalidInputException("You have entered incorrect salry 5 times")
```

```
expenditure_data={}
temp_salary=float(salary)
```

```
while True:
    print("Select Options:\n1:Expenditure\nq:Quit")
    option=input("Enter Option :").strip()

    if option=="1":
        exp_name=input("Enter Expenditure name :").strip()

        exp_amount=input(f"Enter Expenditure {exp_name}:")
        temp_exp_amount=exp_amount.replace(".", "")
        while temp_exp_amount.isdecimal()!= True:
            print("Please Enter Valid Amount")
            exp_amount=input(f"Enter Expenditure {exp_name}:")
            temp_exp_amount=exp_amount.replace(".", "")

        exp_amount = float(exp_amount)
```

```

        if exp_amount > temp_salary:
            raise InsufficientFunds("Insufficient funds")

        if exp_name not in expenditure_data:
            expenditure_data[exp_name]= exp_amount
        else:
            expenditure_data[exp_name]= expenditure_data[exp_name]+exp_amount
        temp_salary -= exp_amount

    elif option=="q":
        break
    else:
        print("You have entered wrong input")

except InvalidInputException as msg:
    print(msg)

except InsufficientFunds as msg:
    print(msg)
    expense_calc(salary,expenditure_data,temp_salary)
else:
    expense_calc(salary,expenditure_data,temp_salary)
finally:
    print("Thank you")

```

User_defined_exception:-

```

class InsufficientFunds(Exception):
    def __init__(self,msg):

```

```
        self.msg=msg

class InvalidInputException(Exception):

    def __init__(self,msg):

        self.msg=msg
```

Output:-

```
Enter Salary :12000
Select Options:
1:Expenditure
q:Quit
Enter Option :1
Enter Expenditure name :rent
Enter the amount for rent:6000
Select Options:
1:Expenditure
q:Quit
Enter Option :1
Enter Expenditure name :movie
Enter the amount for movie:400
Select Options:
1:Expenditure
q:Quit
Enter Option :q
-----
salary    12000
rent      6000
movie     400
total     6400
balance   5600
-----
Thank you
```

```
Enter Salary :15000
Select Options:
1:Expenditure
q:Quit
Enter Option :1
Enter Expenditure name :movie
Enter the amount for movie:400
Select Options:
1:Expenditure
q:Quit
Enter Option :1
Enter Expenditure name :movie
Enter the amount for movie:400
Select Options:
1:Expenditure
q:Quit
Enter Option :q
-----
salary      15000
movie        800
total        800
balance     14200
-----
Thank you
```

```
Enter Salary :0
Please Enter Valid Input:-111
Please Enter Valid Input:123
Select Options:
1:Expenditure
q:Quit
Enter Option :movie
You have entered wrong input
Select Options:
1:Expenditure
q:Quit
Enter Option :123
You have entered wrong input
Select Options:
1:Expenditure
q:Quit
Enter Option :
```

```

Enter Salary :123
Select Options:
1:Expenditure
q:Quit
Enter Option :1
Enter Expenditure name :movie
Enter The amount for movie:124
Insufficient funds

-----
salary    123
total      0
balance    123
-----
Thank you
>>>

```

REFERENCES:

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