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# Lab 5

AUCSC 111

Nov/5/24

	A	B	C	D	E
1	Item	Date	Category	Amount	Discounted Price
2	Rent	06/01/2024	Housing	\$1,200.00	\$120.0
3	Groceries	06/03/2024	Food	\$150.00	\$15.0
4	Subscription	06/04/2024	Entertainment	\$15.00	\$1.5
5	Gym	06/06/2024	Health	\$30.00	\$3.0
6	Electricity	06/08/2024	Utilities	\$100.00	\$10.0
7	Dining Out	06/09/2024	Food	\$60.00	\$6.0
8	Gas	06/10/2024	Transportati...	\$40.00	\$4.0
9	Internet	06/12/2024	Utilities	\$50.00	\$5.0
10	Haircut	06/13/2024	Personal Care	\$25.00	\$2.5
11	Movie	06/15/2024	Entertainment	\$20.00	\$2.0
12	Doctor Visit	06/17/2024	Health	\$80.00	\$8.0
13	Groceries	06/18/2024	Food	\$130.00	\$13.0
14	Parking	06/19/2024	Transportati...	\$25.00	\$2.5
15	Phone Bill	06/21/2024	Utilities	\$45.00	\$4.5
16	Office Suppli...	06/22/2024	Work Expen...	\$45.00	\$4.5
17	Total			\$2015	

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from openpyxl import load_workbook
workbook = load_workbook("Monthly_Expenses.xlsx")
sheet = workbook.active # Access the first sheet

"""Exercise 1: Write a script that loads Monthly_Expenses.xlsx, and reads
and prints out all item names and amounts."""

items = sheet["A"] # Grabs all the Items in row A

amounts = sheet["D"] # Grabs all the Amounts in row D

listcell = ['D0','D1', 'D2', 'D3', 'D4', 'D5', 'D6', 'D7', 'D8', 'D9',
'D10', 'D11', 'D12', 'D13','D14','D15','D16']
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for i in range(2,len(items)+1): # Loop through rows, starting from the
second row
    print(sheet["A"+str(i)].value,":$",sheet[listcell[i]].value) # Print
item name and amount

"""Exercise 2: Add a new column titled "Discounted Price" where each value
is 90% of the original price in the Amount column."""

sheet["E1"].value = "Discounted Price" # Set header for the new column in
cell E1

listcellE = ['E0', 'E1', 'E2', 'E3', 'E4', 'E5', 'E6', 'E7', 'E8', 'E9',
'E10', 'E11', 'E12', 'E13', 'E14', 'E15', 'E16']

for i in range(2,len(items)+1): # Loop through each amount, calculate 90%
of the original price, and write to column E
    DiscountedPrice = sheet[listcell[i]].value -
sheet[listcell[i]].value*0.90 # Get the Discounted amount
    sheet[listcellE[i]].value = "$" + str(DiscountedPrice) # Write
discounted price to column E

"""Exercise 3: Calculate the monthly total of all expenses and write the
result in the cell below the last expense in the Amount column."""

sheet["A17"].value = "Total" # Set label "Total" in the first column after
the last item

total = 0 # Sets the total value to 0

for i in range(2,len(items)+1):
    total = total + sheet[listcell[i]].value # Sum all values in the
Amount column (D) from the second row to the last row with an expense

sheet["D17"].value = "$" + str(total) # Write the total amount in the
Amounts column

workbook.save("Monthly_Expenses.xlsx") # Save the changes to
"Monthly_Expenses.xlsx"

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