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Final project. Python Bootcamp 2021
Home budget

Usage:

tapinova_final_budget_main.py

or

tapinova_final_budget_main.py NAME

In the first case, the script asks the user for his name.

In the second case, the script takes the user's name from the command line.

Actions inside:

1. Adding new expenses or incomes
2. Editing the existing data
3. Showing statistics
4. Changing the currency (nis by default)
5. Exit

Adding new expenses or incomes:

- The script asks the user to choose the item as an income or an expense.
- Then, it asks for the date (*starting from 1971-01-01*), category, amount of money, and a comment.
- The user can choose a category from the list of categories for similar items (incomes or expenses), or the user can type a new one.
- Then the script saves these data into a new file, if there were no files with such name and currency, or adds a new row into the existing file and sorts the entire data by date.

Editing the existing data:

- If the file with such name and currency exists, the script saves the entire data into a data frame and asks the user to choose a row.
- The user can specify the existing data by income/expense, date, amount of money (in other words, the user can filter the data in the file by some parameters BEFORE choosing the exact row), show the entire data with selected parameters, clear the parameters to set them again, or choose the exact row from the filtered data.
- Then, the script asks to input new data and changes the chosen row by the input.
- Then, it replaces the data in the file with the new data frame.

Showing statistics:

If the file with such name and currency exists, the script asks to choose from several options:

1. Statistics over entire data
2. Statistics over the chosen period
3. Dynamics
4. Return to the main menu

Statistics over entire data:

- The script loads the data from the file, prints the first and the last day, total incomes, total expenses, the remainder by the end of the period.
- Then it shows the pie chart with the distribution of incomes/outcomes by category and the daily incomes/expenses over the whole period.

Statistics over the chosen period:

- The script asks the user to select the period from the file (between the first and the last day).
- For this period, it displays the same data and plots as in the previous paragraph.

Dynamics:

The script asks to choose from several options:

1. Dynamics by category for incomes
 2. Dynamics by category for expenses
 3. Dynamics of incomes, expenses, and remainders
- In the first and second cases, the script asks for a category and selects only those rows with the same parameters.
 - In the third case, the script selects the data for incomes/expenses/the difference (remainders).
 - Then, in all cases, the script group the data by year and month and plot the bar chart with the overall incomes/expenses/remainders in each month.

Return to the main menu:

- The script finishes the process of showing the statistics and goes back to the main menu.

Changing the currency:

- The default currency is nis.
- The script adds the currency to the file's name as follows: 'NAME_CURRENCY.CSV'.
- The user can add any comment instead of the currency because the script *does not check the input*.

Exit:

- The script finishes the process.