

Design of div_nums() core function

Ask

Return a list whose values are from `num_list`, divided by `term`, and converted to integers. Here `num_list`, list of integers and `term`, integer are the parameters to the `div_nums()` function

New Variable: `new_list` and is expected to hold list of integers. **Accumulator:** `index`, initialized to 0 and is incremented in every iteration which is used as an index to add values to the new variable created. **Loop variable:** `num` and the data type is integer. **Iterable:** `num_list`, the list of integers. **At each iteration:** The list value retrieved in `num` is divided with the `term` and the quotient is added to the `new_list` using the `index`. **Returns:** `new_list` containing results from above operation.

Approach

- Create a new list variable `new_list`.
- A new `index` field initialized to 0
- For every number `num` in the `num_list`:
 1. divide the number with the `term` using floor division (`//`)
 2. assign the value to the `new_list` variable at the index `index`
 3. `index` is incremented by 1
- At the end of the loop, `new_list` variable contains the integer values of `num_list` values divided by the `term`.
- Return the `new_list`.

NOTE: Floor division (`//`) gives the quotient rounded off to the smallest integer.

Version Control Steps: Run these commands in the git bash terminal window of VSCode.

- `git status`
- `git add .`
- `git status`
- `git commit -m 'design div_nums()'`
- `git status`

Design of last_chars() core function

Ask

Return a list of characters that represent the last character of each word in `word_list` Here `word_list`, list of strings is the parameter to the `last_chars()` function

New Variable: `new_word_list` and is expected to hold list of strings. **Accumulator:** `index`, initialized to 0 and is incremented in every iteration which is used as an index to add values to the new variable created. **Loop variable:** `each_word` and the data type is string. **Iterable:** `word_list`, the list of strings. **At each iteration:** The list value retrieved in `each_word` and the last character of the word is added to the `new_word_list` at index `index` using reverse indexing of `each_word`. **Returns:** `new_word_list` containing results from above operation.

Approach

- Create a new list variable `new_word_list`.
- A new `index` field initialized to 0
- For every string `each_word` in the `word_list`:
 1. get the last character of `each_word` using reverse indexing i.e, -1
 2. assign the value to the `new_word_list` variable at index `index`
 3. `index` is incremented by 1
- At the end of the loop, `new_word_list` variable contains the last characters of `word_list` strings.
- Return the `new_word_list`.

Version Control Steps: Run these commands in the git bash terminal window of VSCode.

- `git status`
- `git add .`
- `git status`
- `git commit -m 'design last_chars()'`
- `git status`