Main Program Specification

Usage of a list to create a photograph gallery with no order in its elements.

Legend

- In this program, a list is called ‘gallery’
- Also, a ‘photo’ is the item (record) which the list is comprised of

Values

- An empty gallery
- A gallery with 50 or less photographs

Necessary Operations

- Add/Remove photographs from the gallery
- Like/Report a photo of the gallery
- Automatically delete all reported photos
- Empty the gallery
- Show the content of the gallery

Operation Usage

Note: Some of the following procedures will work with a parameter (integer) to keep the current number of photographs of the gallery on it.

- Destructors

removePhoto (tIdPhoto, tList, integer) → tList, integer

Goal: Removes a photo of the list by its ID (if it does exist)

Input: An ID, the gallery where the corresponding photo is stored and the image counter of the gallery.

Output: The gallery without the photo

Precondition: The gallery must have been already initialized

purgeGallery (tList, integer) → tList, integer

Goal: Deletes every reported photo in the gallery

Input: The gallery and the counter of that gallery

Output: The gallery without the reported photos

Precondition: The gallery must have been already initialized

emptyGallery (tList) → tList

Goal: Deletes every photo in the gallery

Input: The gallery

Output: The empty gallery

Precondition: The gallery must have been already initialized

- Generators

uploadImage (tIdPhoto, tFileName, tComment, tList, integer) → tList

Goal: Adds a new photo to the gallery

Input: An ID, the gallery where the corresponding photo is stored and the image counter of the gallery.

Output: The gallery without the photo

Postcondition: The image will be set as non reported and will have zero (0) likes by default

Precondition: The gallery must have been already initialized

- Modifiers

reportPhoto (tIdPhoto, tList) → tList

Goal: Reports the photo corresponding to the introduced ID

Input: An ID and the gallery where the photo is stored

Output: The gallery with the now reported photo

Precondition: The gallery must have been already initialized and must not be empty

likePhoto (tIdPhoto, tList) → tList

Goal: Adds a like to the photo corresponding to the introduced ID

Input: An ID and the gallery where the photo is stored

Output: The gallery (the photo has one more like)

Precondition: The gallery must have been already initialized and must not be empty

- Observers

showGallery (tList)

Goal: Shows the gallery with all its photos' information

Input: The gallery to be shown

Output: All the information of the gallery

Precondition: The gallery must have been already initialized and must not be empty