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11/27/2023

Week9Meet - 10 pts

Turn in on BBL as soon as complete, but before end of day Sunday following the lecture.

Answer these questions as we progress through the meeting.

1. <https://docs.oracle.com/javase/8/docs/api/java/util/ArrayList.html#method.detail> Review the methods of ArrayList then choose 2 to discuss how that method could be implemented on an underlying array.

Size() -> This is just the length attribute for the array. It will reference the size value set for the array by the user and return it.

return array.length

Add(): Appends an element to the arraylist

If array is full:

newArray = new Array [2\*initialSize]

index = 0

for elem in initialArray:

newArray[index] = elem

else:

array[array.length-1] = elem

1. After a review of the Agenda code discuss why linked list was chosen as the data structure for the agenda. Consider both linked list and array list in your discussion.

We need a linked list because it is much more efficient to add. An arraylist would require all elements to be shifted whenever a new element gets added in the front, whereas a linked list is simply mananged by a pointer to the spot where the next element should be added.

1. Consider what you learned about a queue as a data structure. Find two examples of queues in your life and choose one to express in pseudocode as a data structure.
2. I have files stored on the top shelf of a holder. You can peek at the first one in the queue
3. Food in a fridge could be an example when you have a lot of it stored because you can only retrieve the items starting from the front

Class File:

String name;

fileQueue<File> = new Queue();

fileQueue.enqueue(new File(“tax document 1”))

fileQueue.enqueue(new File(“tax document 2”))

fileQueue.dequeue()

fileQueue.empty()

1. Consider what you learned about a stack as a data structure. Find two examples of stacks in your life and choose one to express in pseudocode as a data structure.
2. The same holder has a small shelf designed to hold other things in a stack
3. List of chores to do

Class ToDoItem:

String description;

toDoList<ToDoItem> = new Queue();

toDoList.push(new ToDoItem(“Go to the store”))

toDoList.push(new ToDoItem(“Vaccum the house”))

toDoList.pop()

Reflect on your learning and your needs. After this class meeting, how prepared do you feel you are for the final exam? How do you plan to study for it?

I feel like I’m fairly well prepared. Would definitely need to practice linkedlists, stacks, queues more. I plan to review the meet file codes, the labs I’ve done, and feedback I’ve got on those labs to study.