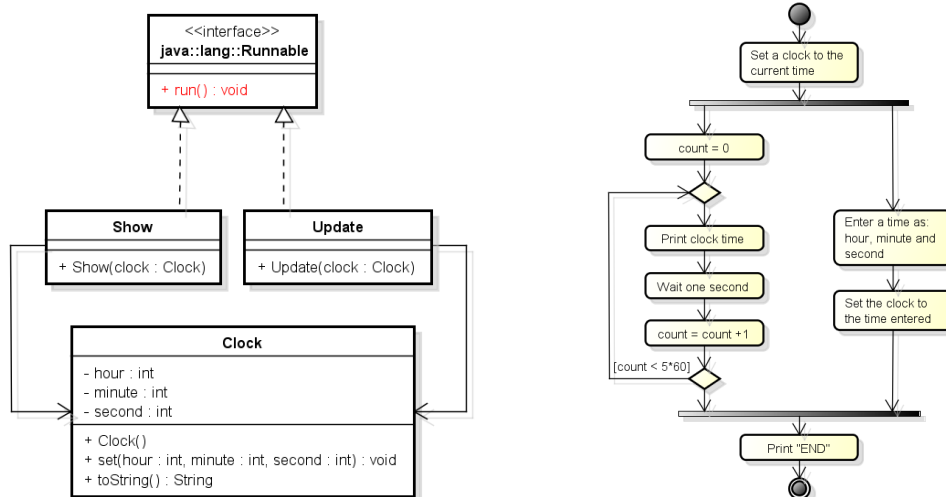


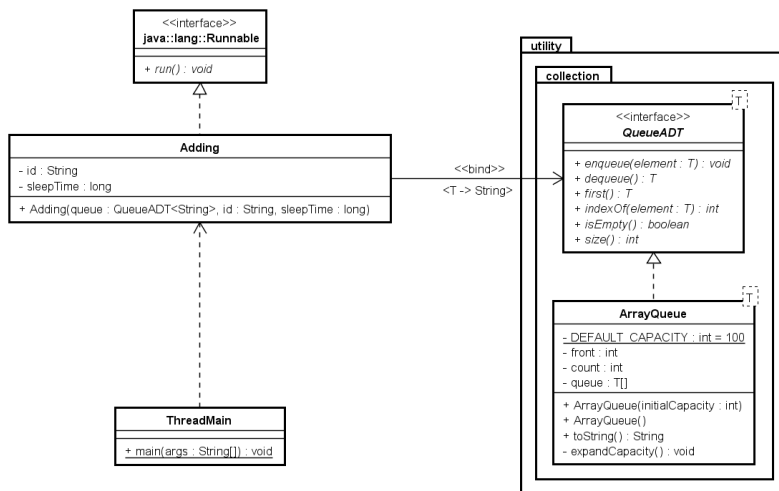
Exercise 03.01

Type in (copy/paste) the Clock example shown in the presentation, see diagrams below. Run it a few times and observe the result.



Exercise 03.02

Implement the following system (see below)



A class `Adding`:

- Three instance variables, a list, an id, and a sleep time in milliseconds.
- A constructor setting all instance variables
- A method `run()` adding 5 String elements. In a loop, add a string marked with id and number, print out the id and the entire list, sleep for `sleepTime` milliseconds and go to the next loop cycle.

A main class `ThreadMain`:

- Create an array queue for string elements (your own implementation)
- Create one thread with `Adding` as the Runnable
- Start up the thread and wait for the thread to finish before you print out the entire list

Run the program a few times and inspect the output.

Exercise 03.03

Change the previous exercise such that

- a) You start up 3 threads in main (give different id's and different sleep times) and then run the program a few times to inspect the output
- b) You start up 3 threads all with the same sleep time. Run the program a couple of times and explain why the result is the way it is.