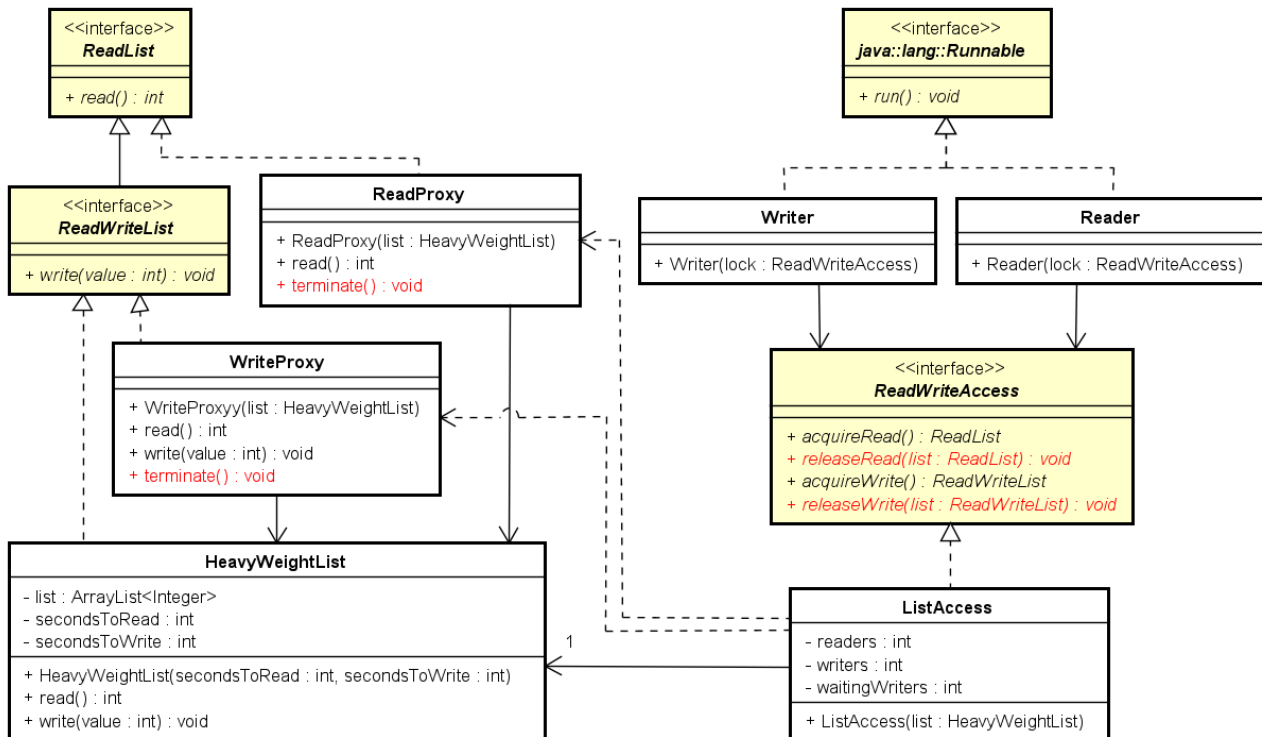


Exercise: Readers-Writers with access to a model object

Re-implement the Readers-Writers problem exercise with the `HeavyWeightList`. This time using a read and write proxy.



Part 1

Implement class `ReadProxy`. The constructor initializes the instance variable. In method `read`, check if the `HeavyWeightList` is not null. In which case call the `read` method in `HeavyWeightList`. If it is null then throw an `IllegalStateException`. Method `terminate` sets the `HeavyWeightList` instance variable to null.

Part 2

Implement class `WriteProxy` with similar structure as `ReadProxy`.

Part 3

Update interface `ReadWriteAccess` to take an interface type argument in the two `release` methods.

Part 4

Update class `ListAccess` to return a new Proxy object in the two `acquire` methods. In the two `release` methods, cast the argument to the correct proxy type (first use `instanceof` to check if it a Proxy) and then call the `terminate` method in the Proxy class.

Part 5

Run the `main` method.

Part 6

You should test that you cannot read after releasing read access. Try updating class `Reader` to call `read` again after releasing read access – and see if you get an exception. Run again.