

## PRO2 - Programming in Java 2

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### Exercise on Exceptions

You might like drinking beer in a pub during the weekend, carnival. If its up to the (Dutch) government, this business process is more and more constrained. . .

For this assignment, youre modeling and implementing the process of drinking beer in a pub.

- The bar keeper has a beer stock available, containing a certain quantity (liters) of beer.
- Beer drinkers can ask the bar keeper for beer, which is served in two quantities being small (0.2 liters) and pint (0.57 liter).
- A beer drinker will add a beer instance to his stomach.
- For each glass of beer, a sequence number is registered (not per drinker, but unique for all drinkers), as well as the time of ordering, the quantity and the consumer.
- Create a number of pub visitors and let them drink. . .

### Things are thrown here

Since the bar you visit is baseball<sup>1</sup> related, things are thrown. In particular exceptions.

So, take into account that the process is prone to exceptions.

- At some time, your bar keeper will run out of beer.
- On the other hand, a beer drinker can reach its limit and is not able to drink anymore.
- Each drinker of course has his or her own limit in liters, set at random at birth (instantiation).
- The government does not allow beer consumption for people younger than 18 years. As Dutch students know, "BOB" (lets say a consumer named "BOB") is not allowed to drink either.

### Task

Develop your own pub simulation, taking possible exceptions into account. Declare your own exceptions and consider if they should be checked (the application/person/role knows how to deal with such exception) or unchecked.

Write unit tests to test if your implementation works conform the specification and if exceptions are properly handled. Consider to work test driven. Testing this solution will be your SEN1 practical work assignment.

<sup>1</sup>Assuming the catch-throw concept stems from US American culture, in particular Baseball

Feel free to add additional exceptions that fit your idea of this business case.

If you dont like beer, feel free to drink something else. 😊

### Deliverables

- A Netbeans project containing all java files. Check in your solution to the appropriate task directory under trunk.



Cheers