Imperial College
London

Software Engineering 2: Object Oriented Software Engineering

Week 8 – Exceptions handling – Lab

Sahbi Ben Ismail (s.ben-ismail@imperial.ac.uk)

Exceptions

Reproduce the examples from the Exception lecture notes and use these concepts in order to write different versions and extensions of previous exercises, For instance:

- Check the difference between `operator[]` and `at(int)` in class `std::vector` in terms of range checking.
- Use the function `at(int)` from class `std::vector` and catch potential exceptions.
- Similarily to the function `my_sqrt(double)`, write a function `my_division(double, double)` that throws an exception when the the second parameter is equal to zero.
- Write your own user-defined exception inheriting from `invalid_argument` (check the exceptions hierarchy).
- Write a main function calling `std::vector.at()` and `my_division(double, double)`. Catch all potential exceptions in the right order.

Revision, Catch-up

Finish Labs excercises of the previous weeks. Add exceptions when appropriate. Previous years Lab assessments are available on Blackboard. Solve

them to revise the module topics (from week 1 to week 8) and and to prepare for the upcoming Lab assessment.