BITBY

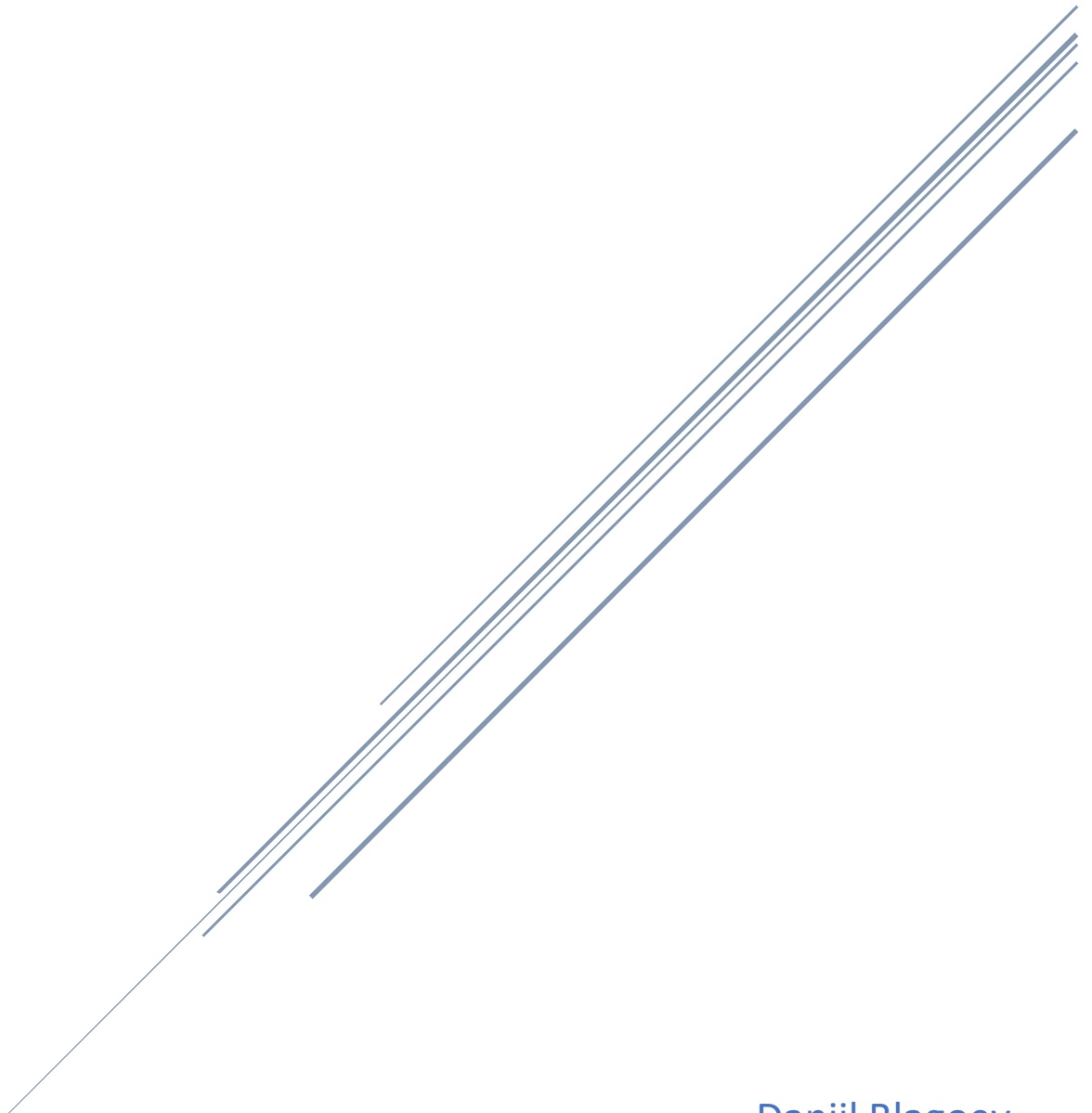## Test strategy

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Software Engineering Semester 3

Test strategy

- Why?
  - I want to test my application because making sure the quality is on point before it gets to the customers is the most important part of a good product, be it in software or anything else. That is especially important in applications like mine- ones that deal with finances. My product is probably not going to be used in the real world but learning how to guarantee high quality would be an extremely useful skill in my future career.
- What?
  - I will be testing the following aspects of my application:
    - CRUD functionalities of positions
      - Unhappy flow, in case of incorrect input for example, included
    - Acquiring the real-time price of Bitcoin
    - CRUD functionalities of users
      - Unhappy flow, in case of incorrect input, included
    - Acquiring statistics
    - Adding funds to a trader account
      - Unhappy flow included
    - Logging in and registration
      - Unhappy flow included
    - Getting statistics information
- How?
  - The testing will be done on a few different levels. The first and most 'zoomed in' level is unit tests- testing if independent modules work properly. The second level is integration testing- testing if the interactions between modules produce the expected results. The third level is system testing- testing if a whole process in the system, opening a position for example, is working as expected. All functionalities will go through user acceptance testing.
  - The more important a functionality is the more types of tests it will go through. Position functionalities will go through all types of tests while statistics tests will go through fewer levels of testing for example. That is due to the fact that positions are one of the most important functionalities in my application and they deal with very sensitive information.
    - CRUD functionalities of positions
      - Unit tests
      - Integration tests
      - System tests
    - Acquiring the real-time price of Bitcoin
      - Unit tests
      - Integration tests
    - Acquiring statistics
      - Unit tests
    - Adding funds to a trader account
      - Unit tests

- Integration tests
- System tests
  - Logging in and registration
    - Unit tests
    - Integration tests
    - System tests