

# Project Milestone 2

Name: Rushil Borad

Banner ID: B00977837

## Black Box Testing Plan

- Defining Test Cases for Each Method:
  - For every method described (e.g., defineSector, defineStock, setStockPrice, etc.) I will create test cases that cover all possible inputs. This will include Input Validation cases (unusual but valid inputs, invalid inputs), edge cases/boundary cases, control flow and data flow tests.
  - Ensuring that test cases cover the expected outcomes, including successful operation, expected return values, and handling of any exceptions or errors as mentioned in method specifications.
- Testing Data Entry Methods:
  - Create scenarios for entering various data (sectors, stocks, advisors, clients, etc.) into the system. Verify that all data is correctly stored and retrievable.
- Test Reporting Methods:
  - Verify that reports (e.g., accountValue, advisorPortfolioValue, investorProfit, etc.) accurately reflect the data in the system, especially after various transactions and updates.
- Test Analysis Methods:
  - Check that analysis methods (e.g., divergentAccounts, stockRecommendations, advisorGroups) provide accurate and expected outputs based on the data present in the system.
- Integration Testing:
  - Beyond testing individual methods, tests will also have to be conducted for the interactions between different parts of the system. Like for example: how the tradeShares method affects the outputs of accountValue and investorProfit.

Finally, after the complete implementation I will also have to test for performance considering the expected frequency of method calls like setStockPrice, to ensure the system operates without any errors and do not give unexpected answers when called multiple times.

# Plan + Timeline of Feature Development

## **April 1 - April 5:**

- Finalize and document the high-level design and database schema.
- Develop a detailed black box testing plan as outlined above.
- Begin implementing basic data entry methods (defineSector, defineStock, addAdvisor, etc.).

## **April 6 - April 10:**

- Implement the core functionality, focusing on data entry and basic reporting methods.
- Start developing analysis methods (divergentAccounts, stockRecommendations, etc.).
- Begin initial rounds of black box testing on completed methods.

## **April 11 - April 14:**

- Complete the implementation of all methods.
- Perform comprehensive black box testing across all functionalities.
- Optimize and refine the code based on test outcomes and performance testing results.
- Prepare external documentation covering usage, design decisions, and testing outcomes.

## **April 15:**

- Final review and submission.