CW3: Report

REVISIONS TO DESIGN

- In the design we changed the way we were handling numbers from int to BigDecimal. This makes the code less readable but more functional for calculating prices.
- We also had to add something to do with location since we neglected that on the first revision
- We also added an object to hold a start date and end date instead of passing both a start and end we created a DatRange class in our UML class diagram
- Also fixed the sequence diagram since the flow was off since we could add the calcTotalPriceand calcTotalDeposit into the initialisation of the quote this makes the Sequence diagram more clean
- We added new functionality to deal with tracking the bike's status and deposit status (which we hadn't considered until implementation). This involved new additions to the design and requirements of the system, mainly in the Booking class and the Bike class - we have updated everything accordingly.
    - In our implementation, we added an enum data type to hold the different statuses of the bike and deposit. Then in the appropriate classes we added methods that updated a status variable. These are called at different stages of booking and return.

REFLECTIVE SELF-ASSESSMENT

1. Extension submodule - 10%

- Implementation of submodule - 10%
    - We successfully implemented the submodule and created varying tests to prove so.
- Peer review of other group's extension submodule - Bonus 10%
    - We reviewed another group's implementation, detailing if they were successful, how well they tested their implementation, and conformance to coding standards. We also provided helpful information for future development and any queries we had with their design.

Our mark: 10% and Bonus 10%

2. Tests - 35%

- System covering key use cases - 20%
  - We have commented on each test, detailing the scenario and how we have approached testing its implementation.
  - We have checked that each key use case work and that they all follow the necessary steps, however we do feel we haven't been able to implement all these steps but have tested how is there.
  - We have varied test data to use for different tests.
  - We have used the MockDeliveryService to test certain aspects of our implementation.
- Unit tests for Location and DateRange - 5%
  - We implemented varying tests for the isNear method in Location and the overlaps method in DateRange that shows their successful implementation.
- System test including implemented extension to **valuation policy** - 5%
  - Our system tests include our implemented valuation policy.
- Mock and test **pricing policy** - 5%
  - This was not attempted.

  Our mark: 30%

3. Code - 45%

- Integration with **valuation policy** - 10%
  - Our classes - LinearDepreciation and DoubleDecline - correctly interface with the ValuationPolicy interface provided.
  - Our system correctly implements the methods in these classes when calculating the final price and deposit of a booking.
- Functionality and correctness - 25%
  - We have attempted to fully implement the full functionality of each use case described: Finding a quote, Booking a quote and Returning bikes.
  - We believe our implementation to be correct, but we recognise we have missed some functionality described in our design but not in the assessed use cases detailed in section 4.3.
- Quality of design and implementation - 5%
  - Our design follows good practices and is high quality.
  - We have included a few assertions we where deemed appropriate.
- Readability - 5%
  - We have followed good coding standards documented by Google and the Sun. We have made the code as readable as possible with comments, white space and appropriate variable names.

- ○ We supplied JavaDoc comments at class, method and field-level, using the tags required.

Our mark: 40%

2. Report - 10%

- Revisions to design - 5%
    - ○ Our design detailed in CW1 and CW2 matches our implementation.
    - ○ In the self-assessment of both CW1 and CW2, we have discussed changes made from feedback and/or during implementation.
- Self-assessment - 5%
    - ○ We have discussed how well we have accomplished each task in this assessment in great detail.

Our mark: 10%

Final Mark: 90% and Bonus 10%