SYSC 3110 Design Project

File Sharing Social Network

Design Decision

Version: Milestone #3

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5. **Introduction**

This document will outlined the details of the design choice for the *File Sharing Social Network* application. For previous detailed description, please refer to *Version: Milestone #1* and *Version: Milestone #2* of this document. Going forward, this document will provide an overview for the updated design features of this project, specifically the implementation of new classes.

1. **Design Choices**

The new main feature of the *File Sharing Social Network* is the addition of *Producer Ranking Strategies*, to the application. As with the previous console version, input prompts for *Consumers*, *Producers*, and the *Number of Search Results To Return*, plus the new feature of *Select the Like/Follow Strategy for the Producer*. The user will increment through cycles in effort to create *Documents*. The *Consumers* will be able to look for the aforementioned *Documents*, and *Like* them. Another small design choice, was the implementation of an abstract class *SimulationData*, which holds our constant variables used in this application.

1. **Class Designs**

The following will outline the design decisions for the implementation of each new class in the *File Sharing Social Network* application.

* 1. **SimulationData**

The *SimulationData* class is an *Abstract* class. This class will hold all the necessary constant variables to the *File Sharing Social Network* application. The reason why we implemented this class is because it provides a main repository where we can find all constant variables with ease.

* 1. **Ranking\_Strategies**

The *Ranking\_Strategies* class is an *Interface* class. This class contains all the necessary methods to compare two *Documents*. All methods in this class implements *Comparator<Document>*. This class was implemented as another repository for all Comparator methods.

* 1. **Producer\_Strategy\_A**

The *Producer\_Strategy\_A* class extends the *Producer* class. This class acts as a *Producer* with a distinct *Act Strategy*.

* 1. **Producer\_Strategy\_B**

The Producer\_Strategy\_B class extends the Producer class. This class acts as a Producer with a distinct Act Strategy.

1. **Summary**

The design of this project allows for determining the top search results based on the ranking system for the number of *Likes* for each respective *Document*. The application can handle as many *Producers* and *Consumer*, as well as the *Number of Search Results To Return*, and finally the *Like/Follow Strategy for the Producer* as the user inputs into the application. In turn, the application will output an updated *Network Statistics*, *Activity Log*, and *Graph* as the application is iterated through by the user. Future milestones will feature the implementation two more features; the ability to step back and the ability to save/restore a simulation at any point.