**Work Breakdown Structure**

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| **Project Name:** Public Auction House  **Group Members:** Xinyi Ma, Xin Yi, Ruiyin Jiang, Su Sun, Zihao Liu  **Start Date:** 2020.01.14  **Finish Date:**2020.04 |
| **1: Analysis and Design**  Start Date: 2020.01.15  Estimated Duration time: 3 weeks  **Task 1:**  **Requirement Analysis**   * Analysis the general requirements for the whole system, and then break the requirement into more detailed user stories.   Estimated Completion Date: 2020.01.19  **Task 1.1:**   * Discuss the requirements and details of functions.(2 days)   **Task 1.2:**   * Define the priority of stories and decide to develop according to the priority.(1-2 days)   **Task 2:**  **Assign tasks**  Estimated Completion Date: 2020.01.24  **Task 2.1**   * Create the project on Github, upload design documents.(1-2 days)   **Task 2.2**   * Define interfaces according to each modules.(1-2 days)   **Task 2.2.1**   * Define how much interfaces there are, and what the input parameters and the output parameters are.(1-2 days)   **Task 2.2.2**   * Confirm the modules and interfaces together and prepare the following steps after that.(1-2 days)   **Task 3:**  **Gather Knowledge**   * We decided to implement this whole system by JAVA, so each of us need to learn about JavaFX, socket and related knowledge.   Estimated Completion Date: 2020.01.31  **Task 3.1**   * Each group member should learn JAVA language and know about the how to work on our problem.(1-2 weeks)   **Task 2.2**   * Share what we learnt and discuss about how to solve the problem using them.(1 week) |
| **2: Implement**  Start Date: 2020.01.31  Estimated Duration time: 1-2 months  **Task 1:**  **Set up Environment**   * In this task, we will make some preparation to implement the project, determine the environment and support tools we require.   **Task 1.1:**   * Prepare JAVA IDE and programming environment such as INTELLIJ IDEA.(1 day)   **Task 1.2:**   * Prepare all the files and documents that we will follow.(2 days)   **Task 2:**  **Coding**   * In this task, we will have better understanding of the whole system including functions and interfaces and so on, and start coding.   Estimated Completion Date: 2020.04  **Task 2.1**   * We will decide how to write codes for each part and start write codes separately for each modules, Bank, Auction House, Auction Central and Client. At regular intervals, we are supposed to reflect on the efficiency of the cooperation-based project.   **Task 2.2**   * We will integrate the codes together and try to interact through processes and tools. (5-10 days) |
| **3: Improve and Finalize**  Start Date: 2020.02.24  Estimated Duration time: 1 month  **Task 1:**  **Test**   * At this stage, we will have the functional pieces of software to get feedback on and arrange new features or fixes for. To maximize existing results, we need to find out some core issues of the functionality. Then we could potentially figure out and adjust those problems accordingly instead of destroying the pure structure of our system.   Estimated Completion Date: 2020.04  **Task 1.1: Make test plans**   * Select test tools, write test cases and generate testing codes.(1-2 days)   **Task 1.2: Run the test**   * Run the test and generate test code coverage report.(5-10 days)   **Task 2**  **Fix the problems**   * In this task, we will continuously pay attention to the technical challenges and design enhances, together with response to changes during testing phase. (5-10 days)   **Task 3**  **Final Check**   * In this task, we will finalize the implementation of the whole auction house system. (3 days) |