**CS 225 P0 Project Proposal Name: \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_**

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| **Provide an overall description of the project.** | |
| Write at least two paragraphs describing your project at a high level. The reader should be able to understand what your project is, the goal of the project, and what the major components are.  The instructor should be able to see enough of the vision of your project to determine if it is possible to meet the project requirements. | |
| **Describe how the project will implement the project requirements.** | |
| **File I/O** | The .csv file will be used as a database for storing all of the information about the items tracked in the warehouse. There will be name, part number, quantity, unit cost, total cost, type, and status columns in the file. There will also be columns for the attributes of the subclasses, which is described more in depth in the inheritance . Each row will be a unique item. As items are added to the program, the provided information will be appended to a row in the file. When the program is loaded, all the rows of information will be extracted from the file to load in all the relevant items. |
| **Exception**  **Handling** | When the user enters values for the quantity and unit cost, exception handling will be used to ensure that the value entered is a positive value of integer type (for quantity) or of double type (for cost). If the value entered is not a positive number, an NumberFormatException error will be thrown and the user will be prompted to enter a valid number again. |
| **Inheritance** | Inheritance will be used in this program to help differentiate different types of items. An abstract “Item” class will be created with the basic setters, getters, and essential methods needed for all items. A “product” subclass will be extended from the item class, which will have extra methods for indicating the sale price (bool) and supplier (String). An “expense” subclass will be extended from the item class to store items that are not sellable products, but still expenses for the business (office supplies, software costs, etc). This subclass will contain methods for determining the type of expense. |