DATA REQUIREMENTS

| **Products** | |
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| **Attribute** | **Description** |
| ID | ● Identification number for a product<br>● Positive integer<br>● Increments every time a new product is added to the table<br>● Unique for every product<br>● Should not be null or empty |
| Name | ● String used to identify a product<br>● Alphanumeric<br>● Up to 40 characters long<br>● Unique for every product<br>● Should not be null or empty |
| Quantity | ● Represents how much of this product is in stock<br>● Positive integer<br>● Derived from sum of the quantities remaining of batches whose foreign key is this product's ID<br>● Should not be null or empty |
| Selling Price | ● Represents how much this item is worth when sold<br>● Positive float<br>● Significant up to two decimal places<br>● Should not be null or empty |
| Discontinuation Status | ● Determines if this product is discontinued or still being sold<br>● Boolean<br>● Accepts only true or false values<br>● Should not be null or empty |

| **Batch** | |
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| **Attribute** | **Description** |
| ID | ● Identification number for a batch<br>● Positive integer<br>● Increments every time a new batch is added to the table<br>● Unique for every batch<br>● Should not be null or empty |
| Product ID | ● Represents the product this batch is associated with<br>● Positive integer<br>● Should not be null or empty |
| Quantity | ● Represents how much of the product this batch<br>● Positive integer (can be zero)<br>● Should not be null or empty |
| Expiry Date | ● Represents when this batch of products will expire<br>● Date in the form month-year<br>● Should not be null or empty |
| Entry Date | ● Represents when this batch was entered in the system<br>● Date in the form month-day-year<br>● Should not be null or empty |
| Buying Price | ● Represents how much the a unit of the product this batch is worth when it was bought<br>● Positive float (cannot be zero)<br>● Significant up to two decimal places<br>● Should not be null or empty |

| **Sale** | |
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| **Attribute** | **Description** |
| ID | ● Identification number for a sales transaction<br>● Positive integer<br>● Increments every time a new sale is added to the table<br>● Unique for every sale<br>● Should not be null or empty |
| Date sold | ● Represents when this sale was recorded in the system<br>● Date in the form month-day-year<br>● Should not be null or empty |
| Total amount sold | ● Represent how much in total are the items sold in this sale are worth<br>● Positive float<br>● Significant up to two decimal places<br>● Should not be null or empty |

| **Line Item** | |
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| **Attribute** | **Description** |
| ID | ● Identification number for a line item<br>● Positive integer<br>● Increments every time a new line item is added to the table<br>● Unique for every line item<br>● Should not be null or empty |
| Sale ID | ● Represents the sales transaction in which this line item is a part of<br>● Positive integer<br>● Foreign key to Sale table<br>● Should not be null or empty |
| Product ID | ● Represents the product in which this line item refers to<br>● Positive integer<br>● Foreign key to the Product table<br>● Should not be null or empty |
| Quantity sold | ● Represents how much of the product is to involved in the sale transaction<br>● Positive integer<br>● Should not be null or empty |

ACCEPTANCE CRITERIA

*Iteration 1 User Stories are in blue; Iteration 2 User Stories in yellow*

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| User Story 1: As the pharmacist, I can add new products to the product list so that I can monitor if it is sellable or not. | |
| Estimate: 1 day | Priority: 10 |
| Precondition: The pharmacist has a product to add into the system. | |
| Post-condition: The pharmacist has successfully added a product. The product is stored in the database. The system displays feedback that the addition was successful. | |
| Acceptance Criteria:<br>1. Test that the pharmacist can enter the name of the new product.<br>2. Test that the pharmacist can enter the selling price of the new product.<br>3. Test that feedback is shown after the product list contains the newly added product.<br>4. Test that the system offers the user to treat the addition as a restocking if the user adds an item of the same name.<br>5. Test that the system highlights blank fields after an attempt to add a new product.<br>6. Test that the system highlights fields with invalid input after an attempt to add a new product.<br>7. Test that the product and its attributes have been stored in the database. | |

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| User Story 2: As the pharmacist, I can discontinue products so that these items will not be reordered. | |
| Estimate: 4 hours | Priority: 15 |
| Precondition: The pharmacist chooses to discontinue a product from the system, and that there already are existing items in the system. | |
| Post-condition: The pharmacist has successfully discontinued a product in the database. Feedback is shown that the selected product is now discontinued. | |
| Acceptance Criteria:<br>1. Test that the pharmacist can select a product from the inventory.<br>2. Test that the pharmacist can confirm or cancel the discontinuation.<br>3. Test that the product's status attribute is correctly updated in the database.<br>4. Test that the discontinued product cannot be added in new sale transactions.<br>5. Test that the discontinued product cannot be restocked.<br>6. Test that the discontinued product does not appear in the product list. | |

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| User Story 3: As the pharmacist, I can view the list of products that are out of stock or below the reorder point so that I can easily determine which products to reorder. | |
| Estimate: 4 hours | Priority: 20 |
| Precondition: The pharmacist wants to view the list of products that are out of stock and that there already are existing items in the system. | |
| Post-condition: | |
| Acceptance Criteria:<br>1. Test that the system displays a list of products whose quantities are not zero and equal to or below the reorder point displaying the product name and remaining quantity.<br>2. Test that the system displays a list of products that have zero quantity (out of stock) displaying the product name.<br>3. Test that the user is allowed to modify the reorder point for both the high demand and low demand products.<br>4. Test that the system determines the high demand and low demand products by getting the average of the total number of units sold for all products and shows products whose total number of units sold exceed this average as high demand products, and those that fall below as low demand products. | |

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| User Story 4: As the pharmacist, I can view the product list so that I may use it as a reference on products available in the pharmacy. | |
| Estimate: 4 hours | Priority: 11 |
| Precondition: The pharmacist wants to view the product list and that there are existing items in the system. | |
| Post-condition: | |
| Acceptance Criteria:<br>1. Test that the system shows a list of items displaying the product name and remaining quantity and selling price, listed alphabetically.<br>2. Test that the system shows a list of previous restocks of a certain product, displaying its entry date and buying price, listed from latest to the oldest.<br>3. Test that the pharmacist can search for an item from the product list. | |

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| User Story 5: As the pharmacist, I can add a new batch of products to the inventory as a record of restocked products. | |
| Estimate: 2 days | Priority: 10 |
| Precondition: The pharmacist has restocked products to record and that these products already exist in the system. | |
| Post-condition: The database has been updated. Feedback is displayed showing success of restocking. | |
| Acceptance Criteria:<br>1. Test that the pharmacist can enter the quantity of items in the batch.<br>2. Test that the pharmacist can select an product name from a selection of product names that already exist in the records.<br>3. Test that the pharmacist can input the expiry date of the batch in the form month-year.<br>4. Test that feedback is displayed announcing successful restocking.<br>5. Test that empty fields are highlighted after an attempt to Restock.<br>6. Test that the batches are correctly added in the database.<br>7. Test that restocking a product that previously has a quantity below the reorder point such that its current quantity is above the reorder point removes the product from the list of critical items.<br>8. Test that quantities are updated in the product list accordingly.<br>9. Test that batches are updated in the batch list accordingly. | |

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| User Story 6: As the pharmacist, I can record the transaction details every time a customer purchases since it will form part of the daily sales report. | |
| Estimate: 2 days | Priority: 10 |
| Precondition: The pharmacist wants to record a sales transaction and that items already exist in the system. | |
| Post-condition: The sales transaction is stored in the database. Feedback is displayed showing success of recording. | |
| Acceptance Criteria:<br>1. Test that the pharmacist can enter the quantity of sold item.<br>2. Test that the pharmacist can select a product name from a selection of current products' names.<br>3. Test that the pharmacist can set the date of the sale transaction in the form month-day-year.<br>4. Test that the system sets the date of the sale transaction by default.<br>5. Test that the pharmacist can add multiple items to the transaction.<br>6. Test that feedback is shown confirming the transaction's addition to the database.<br>7. Test that the transaction details are stored in the database.<br>8. Test that the quantity of the item is deducted from the item with same name and with the earliest expiry date.<br>9. Test that the system highlights blank fields after an attempt to add the transaction to the database.<br>10. Test that if the quantity of a certain product falls equal or below the reorder point, the product must appear in the critical list. | |

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| User Story 7: As the pharmacist, I can manage the documentation of expired and near-expired items so that I am able to appropriately tag, recall the supplier, or dispose. | |
| Estimate: 1 day | Priority: 15 |
| Precondition: The pharmacist wants to view the near-expired and expired items in the inventory and wants to take action with these items. | |
| Post-condition: The system removes the expired and near-expiry items from the list. | |
| Acceptance Criteria:<br>1. Test that the system indicates those medicine whose expiry month is the current month as expired.<br>2. Test that the system indicates those medicine whose expiry month within 6 months of current month as near-expired.<br>3. Test that the pharmacist can see a list of near-expired batches, displaying the product name, quantity and expiry date.<br>4. Test that the pharmacist can see a list of expired batches, displaying the product name, quantity and expiry date.<br>5. Test that the expired batches are shown first, followed by the near-expired.<br>6. Test that the near-expired batches are ordered from earliest to latest expiry date.<br>7. Test that the expired batches are ordered from earliest to latest expiry date.<br>8. Test that there is a “Remove” option that allows the removal of batches from the list.<br>9. Test that selecting the “Remove” option removes the batch from the list.<br>10. Test that selecting the “Remove” option will set the batch to a discontinued status in the database.<br>11. Test that removing a batch will modify the quantities of the involved products in the Sale UI and Product List UI. | |

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| User Story 8: As the owner, I can view the sales report as basis for the computation of the monthly sales report and the monthly income statement. | |
| Estimate: 2 days | Priority: 20 |
| Precondition: The owner wants to view the sales reports. | |
| Post-condition: | |
| Acceptance Criteria:<br>1. Test that the owner can view the total sales for the day.<br>2. Test that the owner can view the total sales for the past 7 days.<br>3. Test that the owner can view the total sales for the past 30 days.<br>4. Test that the owner can view the total sales of a certain month in the past. | |