Braiden Hunter

CS 499 Project Proposal

1.) Inventory Scanning Software

2.) For my CS 499 Project, I propose working alongside Skybreed Discs, a local Disc Golf Retail Store. I am an avid disc golfer and am also friends with the manager of this small business. He expressed a need for someone to complete a software project to create a more efficient and accurate method to determine items within customer orders and verify that the correct items are pulled from the shelf to be shipped to the customer. Currently, Skybreed does not have verification software to ensure that each item pulled matches the ordered item, so human error in reading item IDs can lead to the wrong items being shipped. For my solution, I am planning on creating scanning software that takes in all items from a specific order that is ready to be pulled off the shelves. When the order is pulled out of the database, each item in the order will be shown with a picture and description. As each item is scanned, the software will track which item on the list was scanned and proceed to mark that item as scanned, and the employee can also compare the image to the item to ensure it is the correct item. If an incorrect item is scanned, an error will be displayed to notify the employee that the incorrect item was scanned. There also will be a manual bypass for the barcode for items that do not have barcodes associated with them. With this software, I am hoping to help Skybreed increase the accuracy of order fulfillment, consequently reducing the number of incorrect items being shipped out to customers, therefore saving the company valuable time and money.

3.) Timeline / Plan
   a. Week 1 – Project Planning / Research
      i. Gather specific requirements from the business.
      ii. Understand software environment / current structures.
   b. Week 2 – Design Phase
      i. Design workflow for scanning items
   c. Week 3 – Database Modifications
      i. Define changes in the database to implement scanning software and modify based on these observations.
   d. Week 4 & 5– Backend Development
      i. Design logic for the backend to run scanning software.
      ii. GUI
   e. Week 6 & 7 – Frontend Development
      i. Create the frontend for the scanning software.
      ii. Buttons / Visuals
   f. Week 8 – Testing and debugging / Prep for presentation.
      i. Test for scanning accuracy
      ii. Ensure software is user friendly

4.) GitHub repository
   a. https://github.com/braidenhunter7/CS-499-Software-Project.git