

Explanation Page:

The GUI was built using 1920 x 1080 resolution – so if using bigger just be aware the locations of the components will be slightly off.

What we implemented is both the GUI which is the simulation software, and physical simulation screens for both the customer and the attendant for interacting with the software. When you open the program, we initialized it to the attendant log in screen so that the attendant can start the self checkout station. The customer physical simulation screen also pops up initially. Sign in using username: 1234 password: 1234 or username: 1111 password: 1111. The next screen is to show what the attendant console would look like. We have it set up with 6 possible checkout stations, but only 1 is enabled as we ran out of time to implement all 6 working. To get to the next screen you must click directly on the words “Checkout #1”. The following screen is the attendant actions screen, the buttons work as follows:

- Start Station: starts the self checkout station (takes you to the start screen)
- Shutdown Station: powers off the self checkout station (closes the program)
- Look Up Item: the attendant look up item screen
- Approve Weight Discrepancy: takes you back to the buying items screen
- Remove Item: activated once you select an item on the itemized list of what has been scanned or entered. It will remove the item from the itemized list
- Block Station: takes you to the block screen. The attendant physical simulation screen also pops up so that the attendant can perform maintenance.
- Unblock Station: take the station out of the blocked state. Takes you to the start screen.
- Log Out: Logs the attendant out. Takes you to the attendant log in screen
- Go Back: takes you back to the attendant screen with all of the checkouts on it (the previous screen)

The items we have available for purchase are as follows:

- To Scan: Checkout Machine Toy; PlayStation 6; Grand Piano
  - Enter PLU Code: Apple – 5425; Pears – 4523
- For these items add a weight to the scale from the physical simulation screen

Once the self checkout station has been started, either choose Start(takes you to the enter membership number screen) or I Brought my Own Bag(add bag to the bagging area from physical simulation window). If entering membership number, use: 123456789, else scan membership card from the physical simulator screen. The buying screen you can scan an item from the physical simulation screen, Key In Code to enter PLU code item, or Look Up Item, enter at least 3 letters from the desired item. Help takes you to the attendant log in screen. Finish & Pay takes you to the buying bags screen. From the buying bags screen enter number of bags and click OK to go to the payment screen or Go Back to go back to the buying screen. Once on the payment screen choose how you would like to pay. If you choose Cash, enter banknotes and/or coins from the physical simulation screen. If you choose Debit, choose Tap debit card on the physical simulation screen. If you choose Credit, choose Insert&Pin Credit Card on the physical simulation screen. If you choose Gift Card, choose Swipe Card. Go Back on the payment screen takes you back to the buying screen. If you do not bag an item a screen will pop up reminding you to. If there is too much weight in the bagging area the attendant will have to approve it so on the screen letting you know that there is a weight discrepancy, there is also a button for the attendant to log in.

Once in the blocked state, the attendant can choose to refill specific banknotes and refill specific coins by first select the denominations to fill and the clicking either Refill Selected Banknotes or Refill Selected Coins. They can refill the printer ink and the printer paper. Also, they empty the banknote storage unit and coin storage unit. When the attendant unblocks the screen checkout, it returns to the start screen.

Some bugs we were unable to fix is when you initially Scan Toy, Scan PlayStaion, or Scan Piano after bagging, the total cost won't show up on the buying bags screen, but will be there if you press Go Back or move onto the payment screen.