CIS 25

Brief explanation:

The program will allow the user to use the command line to interact with an inventory stored on the file Inventory.txt. The user will be able to have a balance that they can use to buy new items or sell old ones. The user can also view the inventory or change the price of an item. The transaction will be logged in a separate file called transactionLog.txt.

Concepts used:

- Data types
- File types *.txt
    - transactionLog.txt
    - Inventory.txt
- Uses pointers
    - Storage member in Inventory is an array or Item*
- Array
    - Storage member in Inventory is an array or Item*
- Binary search and linear search
    - Used for searching items in the array
- Strings
    - Item names are strings
- File I/O
    - transactionLog.txt is used to log transactions
    - Invenotry.txt is read and written too during the program
- Classes
    - Inventory
    - Item

Screenshots:

```
Welcome to your inventory managment system.

Select the number corresponding to the option you want.
1. Deposite money
2. Buy an item
3. Sell an item
4. View inventory
5. Change item cost
6. Quit
1
You currently have $0
How much money do you want to deposite: 1000
Your current balance is now $1000

Select the number corresponding to the option you want.
1. Deposite money
2. Buy an item
3. Sell an item
4. View inventory
5. Change item cost
6. Quit
2
What is the name of the item you would like to buy: book
How many books do you want to buy: 3
How much does one book cost: 10
3 books will cost $30.
This will leave your balance at $970.
Are you sure you want to buy this (y/n): y

Select the number corresponding to the option you want.
1. Deposite money
2. Buy an item
3. Sell an item
4. View inventory
5. Change item cost
6. Quit
4
Would you like to view your whole inventory or one item.
1. Whole inventory
2. One Item
3. Neither
1
Inventory:
book : 3 : $10

Select the number corresponding to the option you want.
1. Deposite money
2. Buy an item
3. Sell an item
4. View inventory
5. Change item cost
6. Quit
6
```

```
❯ ./a.out
Welcome to your inventory managment system.

Select the number corresponding to the option you want.
1. Deposite money
2. Buy an item
3. Sell an item
4. View inventory
5. Change item cost
6. Quit
3
What is the name of the item you would like to sell: book
How many books do you want to sell: 1
How much does one book cost (Enter 0 if you want to use item's normal price): 20
1 book will cost $20.
This will make your balance at $990.
Are you sure you want to sell this (y/n): y

Select the number corresponding to the option you want.
1. Deposite money
2. Buy an item
3. Sell an item
4. View inventory
5. Change item cost
6. Quit
3
What is the name of the item you would like to sell: book
How many books do you want to sell: 1
How much does one book cost (Enter 0 if you want to use item's normal price): 0
1 book will cost $10.
This will make your balance at $1000.
Are you sure you want to sell this (y/n): y

Select the number corresponding to the option you want.
1. Deposite money
2. Buy an item
3. Sell an item
4. View inventory
5. Change item cost
6. Quit
5
What is the name of the item you would like to change: book
book currenty costs 10.
What do you want to change book's cost to: 25
```

```
Select the number corresponding to the option you want.
1. Deposite money
2. Buy an item
3. Sell an item
4. View inventory
5. Change item cost
6. Quit
3
What is the name of the item you would like to sell: book
How many books do you want to sell: 1
How much does one book cost (Enter 0 if you want to use item's normal price): 0
1 book will cost $25.
This will make your balance at $1025.
Are you sure you want to sell this (y/n): y

Select the number corresponding to the option you want.
1. Deposite money
2. Buy an item
3. Sell an item
4. View inventory
5. Change item cost
6. Quit
6
```

```
❯ ./a.out
Welcome to your inventory managment system.

Select the number corresponding to the option you want.
1. Deposite money
2. Buy an item
3. Sell an item
4. View inventory
5. Change item cost
6. Quit
1
You currently have $1025
How much money do you want to deposite: 1000
Your current balance is now $2025

Select the number corresponding to the option you want.
1. Deposite money
2. Buy an item
3. Sell an item
4. View inventory
5. Change item cost
6. Quit
2
What is the name of the item you would like to buy: car
How many cars do you want to buy: 1
How much does one car cost: 1500
1 car will cost $1500.
This will leave your balance at $525.
Are you sure you want to buy this (y/n): y

Select the number corresponding to the option you want.
1. Deposite money
2. Buy an item
3. Sell an item
4. View inventory
5. Change item cost
6. Quit
4
Would you like to view your whole inventory or one item.
1. Whole inventory
2. One Item
3. Neither
1
Inventory:
book : 0 : $25
car : 1 : $1500
```

```
Select the number corresponding to the option you want.
1. Deposite money
2. Buy an item
3. Sell an item
4. View inventory
5. Change item cost
6. Quit
4
Would you like to view your whole inventory or one item.
1. Whole inventory
2. One Item
3. Neither
2
What is the name of the item you would like to view: car
car : 1 : $1500

Select the number corresponding to the option you want.
1. Deposite money
2. Buy an item
3. Sell an item
4. View inventory
5. Change item cost
6. Quit
6
```

Files after running:

```
❯ cat Inventory.txt
525
book, 25.000000, 0
car, 1500.000000, 1
```

```
❯ cat transactionLog.txt
deposite - $1000.000000
balance = $1000.000000
purchased - 3 book for $30.000000
balance = $970.000000
book quantity = 3
sold - book for $20.000000
balance = $990.000000
book quantity = 2
sold - book for $10.000000
balance = $1000.000000
book quantity = 1
book cost = 25.000000
changed price - book = $25.000000
sold - book for $25.000000
balance = $1025.000000
book quantity = 0
deposite - $1000.000000
balance = $2025.000000
purchased - car for $1500.000000
balance = $525.000000
car quantity = 1
```

Challenges I faced:

One challenge I faced while making this was handling user input especially when the user typed a word instead when they were supposed to type a number. I was able to overcome this with research to learn how to clear the buffer. Another challenge I faced was reading and storing information in a csv format. This required learning how to use substring.