Online Store and Warehouse

Overview:

Represents the SQL database of a online store and it’s warehouse. The program will create bots to represent buyers and warehouse workers. The intention of this program is show how to create database

Program also has historical data. Company has merged with garden supply shops, book stores, sporting goods store and a retail finance company. The historical data from these stores is cleaned transferred and stored in a data warehouse.

Parts

Online Store

Customers can get data about products via sql queries. Once a customer makes a purchase database is updated and an order is created.

Warehouse

Data has information on stock and status of packages. Orders that are created by customers can be fulfilled by warehouse workers.

Customer and worker bots

Basic AI bots to represent action of customers and warehouse workers

Bots

Basic Bot

Has three states

Inactive

Send query and print output

Send query that inputs info

All states return to inactive after completing

Bot can move from inactive to another state due to random input

Bot has a list of queries it can send

Iterations

Iteration 1:

Draw out schema by hand

Iteration 2:

Create data in csv

Create dummy data orders and customers etc.

Write sql code to create data

Create basic sql queries to get data

Iteration 3.

Set up python program

Get python to connect to mysql

Send basic query to retrieve data

Send query to update data

Iteration 4.

Write out description of bots

Create super basic bot that can put in an order

Increase complexity of database

Interaction 5.

Connect tableau to mysql or python

Create basic visualisations

Sales over time

Profit

Bank balance

Stock levels

Iteration 6:

Create more complex bots

Customer bot

Order picker bot

Supplier bot

Iteration 7:

Create historic data of previous stores

Book shop

Sportsware store

Home goods

Financing

Social media

Iteration 8:

Set up code to merge data from multiple sources

Review how to create data warehouse