

# Inventory Management System

CMPS 3400 – Project Assignment 3

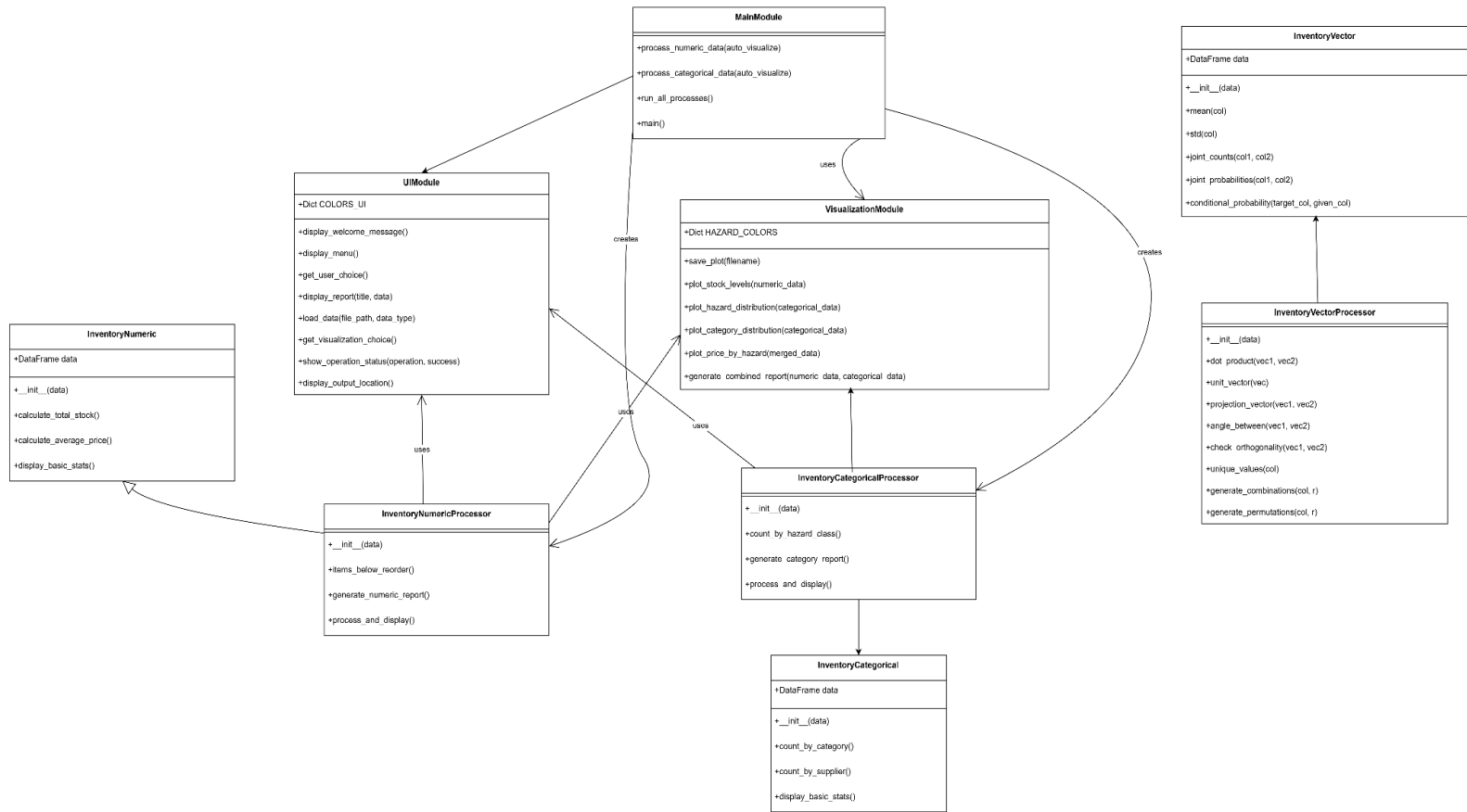
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04.27.2025

[https://github.com/taylfrad/CMPS3400\\_Grp\\_A](https://github.com/taylfrad/CMPS3400_Grp_A)

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# Class diagrams



## Test data:

### Inventory\_categorical.csv

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```
ProductID,ProductName,Category,HazardClass,Supplier
101,Methanol,Chemicals,A,FurniTech
102,Standing Desk,Furniture,C,CleanAll Ltd.
103,Laptop,Electronics,C,FurniTech
104,Toilet Paper,Cleaning,B,TechWorld Inc.
105,Paper A4,Office Supplies,C,ChemSupply Co.
106,Staples Box,Office Supplies,C,CleanAll Ltd.
107,Respirator,Safety Equipment,D,OfficeMax
108,Toilet Paper,Cleaning,B,ChemSupply Co.
109,Staples Box,Office Supplies,D,ChemSupply Co.
110,Paper A3,Office Supplies,C,ChemSupply Co.
111,Whiteboard,Furniture,D,ChemSupply Co.
112,Benzene,Chemicals,A,TechWorld Inc.
113,Xylene,Chemicals,A,FurniTech
114,Lab Coat,Safety Equipment,D,LabSource
115,Respirator,Safety Equipment,D,FurniTech
116,Monitor,Electronics,B,OfficeMax
117,Test Tubes,Laboratory,A,ChemSupply Co.
118,Test Tubes,Laboratory,B,CleanAll Ltd.
119,Analytical Balance,Laboratory,B,ChemSupply Co.
120,Laptop,Electronics,D,OfficeMax
121,Chloroform,Chemicals,A,ChemSupply Co.
122,Laptop,Electronics,C,ChemSupply Co.
123,Filing Cabinet,Furniture,C,OfficeMax
124,pH Meter,Laboratory,C,TechWorld Inc.
125,Ear Protection,Safety Equipment,D,FurniTech
126,Scissors,Office Supplies,D,OfficeMax
127,Trash Bags,Cleaning,C,LabSource
128,pH Meter,Laboratory,A,CleanAll Ltd.
129,Pen Set,Office Supplies,C,LabSource
130,Hand Sanitizer,Cleaning,C,LabSource
131,Microscope,Laboratory,C,CleanAll Ltd.
132,Ethanol,Chemicals,A,LabSource
133,Floor Cleaner,Cleaning,C,LabSource
134,Floor Cleaner,Cleaning,C,CleanAll Ltd.
135,Scissors,Office Supplies,C,CleanAll Ltd.
136,Pipettes,Laboratory,B,OfficeMax
137,Sofa,Furniture,C,FurniTech
```

```

138,Paper A4,Office Supplies,C,OfficeMax
139,Glass Cleaner,Cleaning,C,OfficeMax
140,Hydrochloric Acid,Chemicals,B,LabSource
141,Xylene,Chemicals,B,TechWorld Inc.
142,Fire Extinguisher,Safety Equipment,D,TechWorld Inc.
143,Tape Dispenser,Office Supplies,C,LabSource
144,Cork Board,Furniture,C,FurniTech
145,Stapler,Office Supplies,D,ChemSupply Co.
146,Paper A4,Office Supplies,C,FurniTech
147,pH Meter,Laboratory,A,OfficeMax
148,Formaldehyde,Chemicals,B,CleanAll Ltd.
149,Hand Sanitizer,Cleaning,B,FurniTech
150,All-Purpose Cleaner,Cleaning,B,FurniTech

```

## Inventory\_numeric.csv

Unset

```

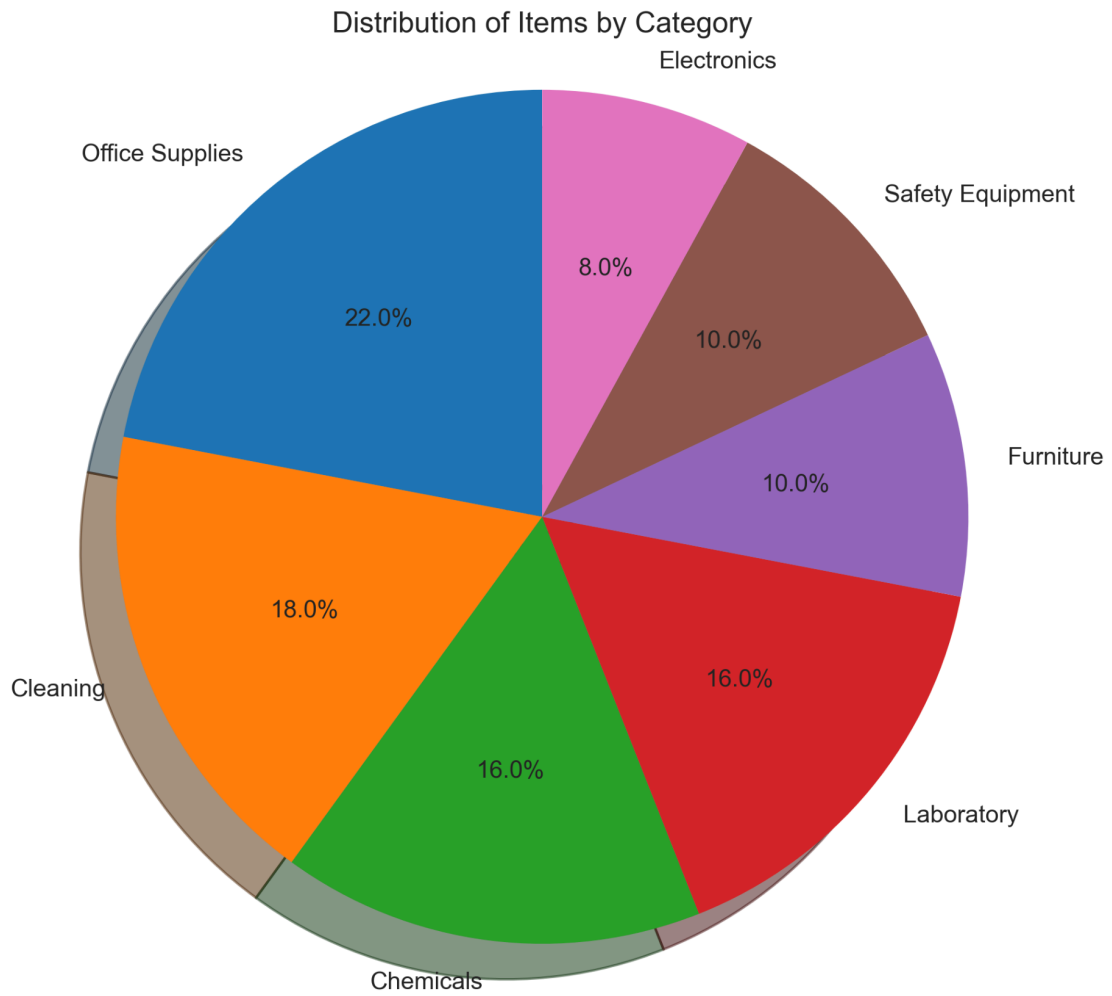
ProductID,Stock,Price,ReorderLevel
101,14,131.94,19
102,24,68.74,33
103,46,34.87,26
104,37,38.98,33
105,61,98.63,25
106,37,30.29,40
107,72,79.44,36
108,50,103.32,27
109,55,18.29,26
110,31,92.19,39
111,69,57.1,41
112,30,145.67,15
113,27,94.29,12
114,57,22.69,49
115,57,43.73,37
116,28,82.86,16
117,30,117.25,20
118,31,116.84,30
119,31,113.12,35
120,28,78.45,35
121,20,139.39,25
122,50,73.13,36

```

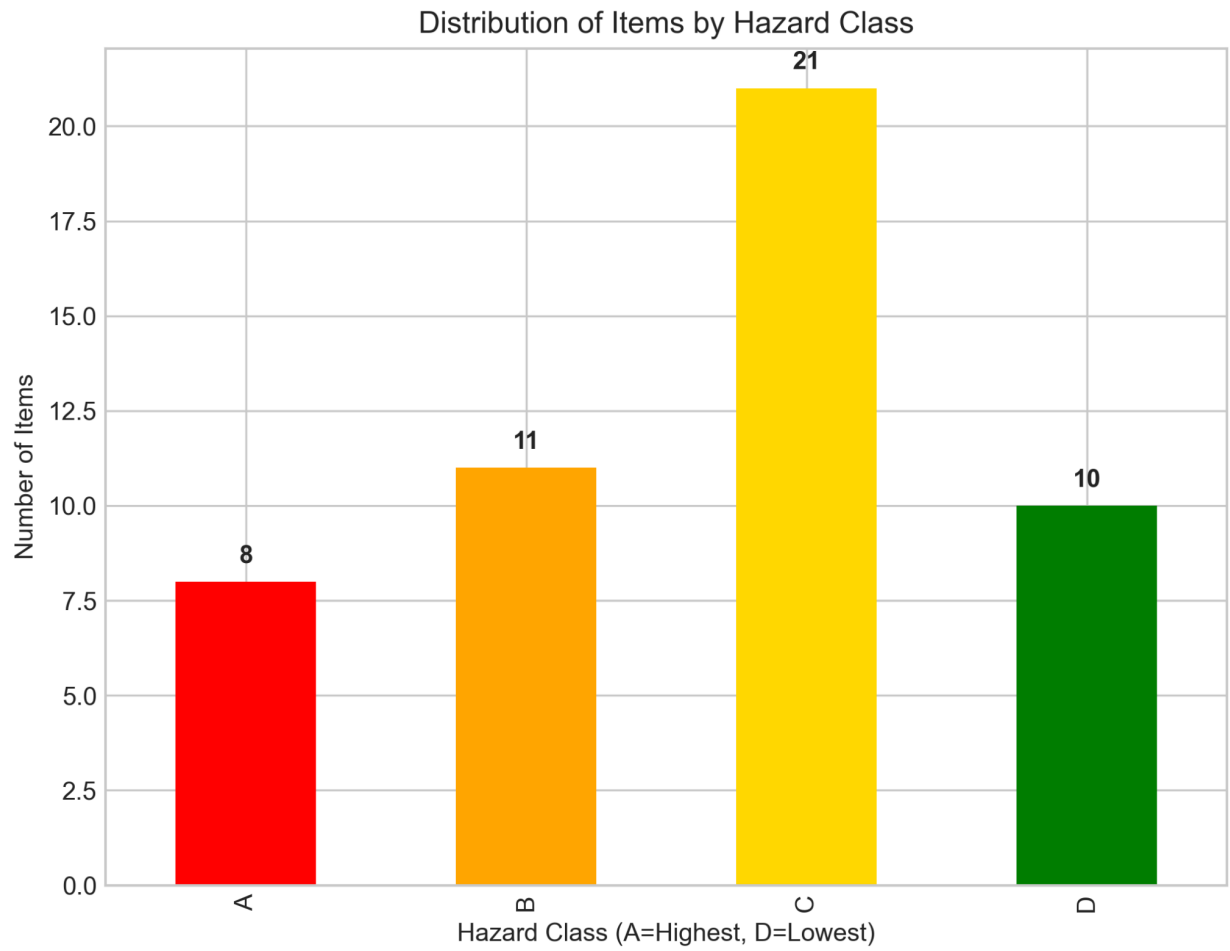
123, 24, 17.84, 30  
124, 24, 33.64, 31  
125, 86, 62.4, 36  
126, 37, 25.08, 34  
127, 49, 62.73, 22  
128, 9, 69.02, 14  
129, 70, 50.2, 32  
130, 16, 87.41, 21  
131, 51, 92.54, 32  
132, 16, 231.69, 20  
133, 30, 24.37, 36  
134, 55, 88.52, 35  
135, 51, 90.55, 31  
136, 11, 54.93, 25  
137, 35, 34.69, 25  
138, 27, 86.25, 34  
139, 24, 27.25, 31  
140, 47, 32.71, 32  
141, 11, 90.37, 1  
142, 64, 42.91, 33  
143, 38, 49.28, 27  
144, 57, 76.98, 21  
145, 58, 64.08, 35  
146, 63, 82.52, 20  
147, 9, 185.32, 12  
148, 15, 109.12, 18  
149, 31, 113.63, 22  
150, 29, 32.86, 24

# Outputs

category\_distribution.png

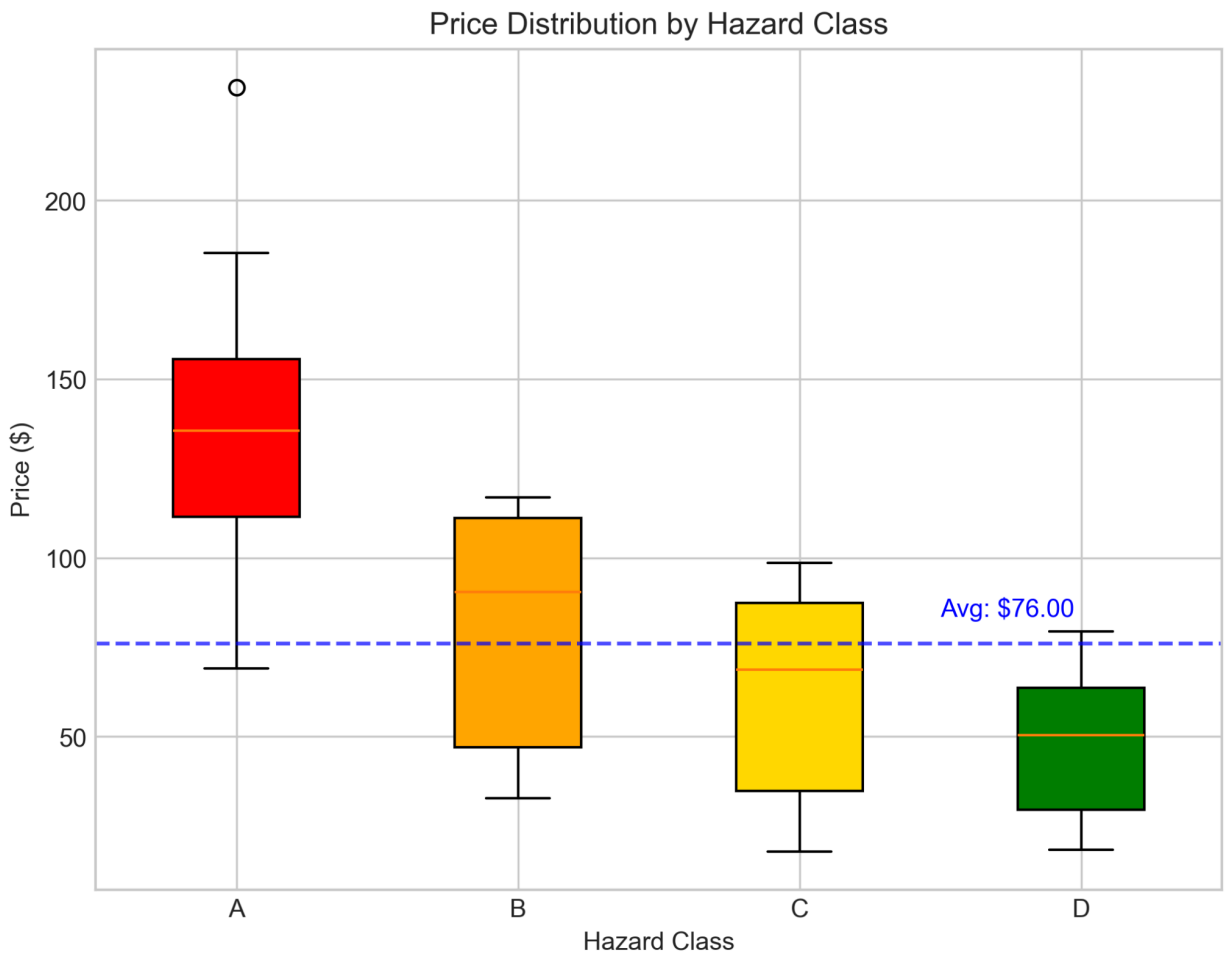


hazard\_distribution.png

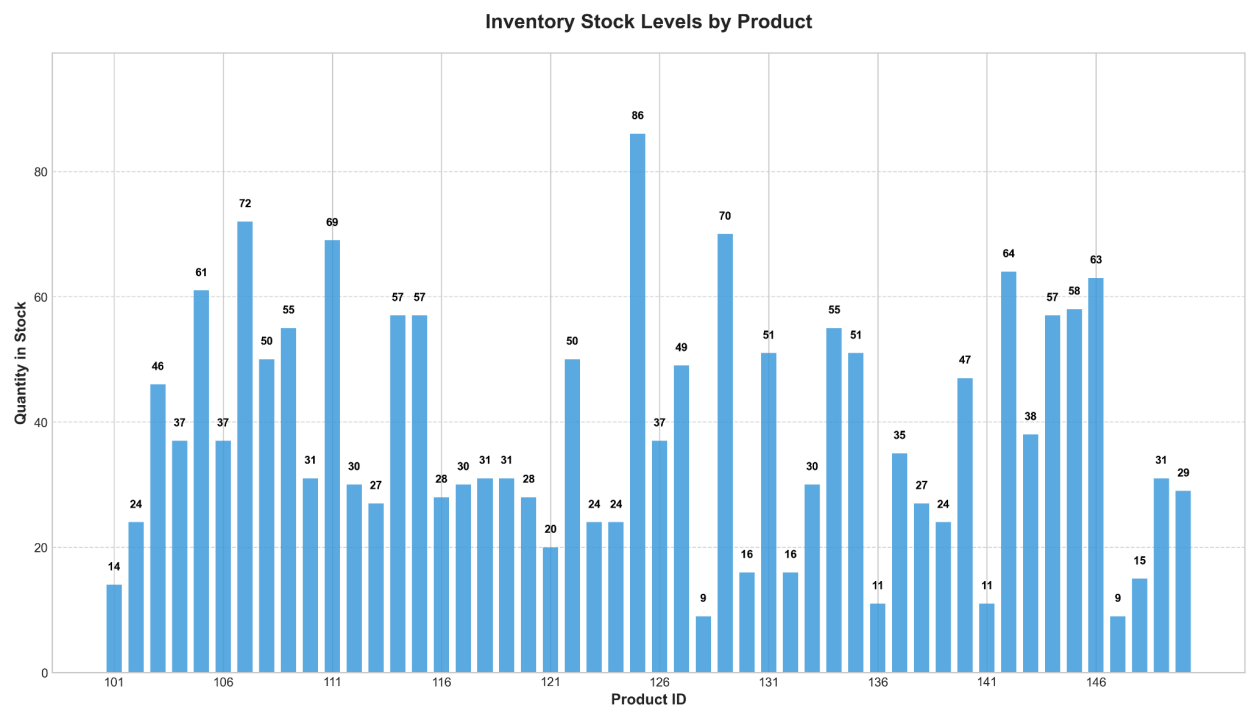




price\_by\_hazard.png



Stock\_levels.png



## Log file

Unset

```
2025-04-27 20:30:59,497 Inventory Management System started
2025-04-27 20:31:03,381 Run All process started
2025-04-27 20:31:05,442 Numeric data processed successfully
2025-04-27 20:31:06,498 Categorical data processed successfully
2025-04-27 20:31:06,745 Run All process completed
```

## Task Progress Report

| Date       | Task Name   | Status   | Person          |
|------------|-------------|----------|-----------------|
| 04/27/2025 | Code/Report | Complete | Angel Njoku     |
| 04/27/2025 | Code/Report | Complete | Taylor Fradella |
| 04/27/2025 | Report      | Complete | Ayomide Olubuse |

## Team communication

Communication was good just trying to dial in for the final project.