Abstract	
User	
Shopper, Administrator	
Log in	
Register	
Browse	
Log out	

Product	
Check availability Present image, ID, description, category, price(CAD) Keeps track of quantity at each distribution center.	Category

Category	

User	
Administrator	
Add new categories	Category
Generate a screen report of existing categories	Product
Add a new product	Invoice
Change the photograph, description, price, available quantity	FileManager
See a list of products and their availabilities and ability to sort by name or category.	Map
Add distribution center	
Add shipping route	
Update quantity	

Invoice	

User	
Shopper	
Add record	Product
Add products to cart	Category
Check out	FileManager
See a list of his purchases	Invoice
See a list of products and their availabilities	Order
Save cart	Customer
Place order	

FileManager	
Read and write Products from files Read and write Categories from files Read and write Map (Cities, Distribution Centers, Flight Route) from files Read and write Users Read and write Orders	User Category Product Invoice Order

Session	
	FileManager

Map	
- Add a city - Add a distribution center - Add a Flight Route - Get cost of shortest route between two locations.	Heap

Order	

Heap	
	`HeapEmptyException` `HeapFullException`

	Exception
HeapEmptyException	

	Exception
HeapFullException	

Interface	
HeapItem	

	HeapItem
City_Node	
Set up Heap Index	

Customer	

GUI	
Perform a GUI for User log in, register, log out. Perform a GUI for Administrator maintain products, category, shipping routes, add new distribution center, generate category reports and perform sales reports Perform a GUI for browse all products and search products Perform a GUI for Customer add to cart, cancel cart, modify cart, see purchase history	Project User