

Serializable <div>User</div>	
UserID Password Back	Background UserManager

Serializable <div>Administrator</div> <div>User</div>	
Add category Add distribution center Add product Add route between two cities Update quantities Change available quantity Change price Set image See products See existing categories	Category Product Background

Serializable <div>Shopper</div> <div>User</div>	
Cart Customer Check out Add customer Add product to cart Remove product to cart Empty the shopping cart	ShoppingCart Customer Background

Serializable	
Product	
Name Image Category Price Product ID Subtract quantity from initial quantity Add quantity to the initial quantity	Category Administrator Invoice ShoppingCart

Serializable	
Category	
Name ID Add	Background Administrator Product

Serializable	
Invoice	
ID Client name List of products Add product Set invoice amount	Product

Serializable	
Order	
Customer Product ID Order Quantity City Set the city of the customer who ordered	Customer

<div>Serializable</div> <div>Background</div>	
<div>List of categories</div> <div>List of products</div> <div>List of distributions</div> <div>List of customers</div> <div>City route</div> <div>Checks whether contain the category</div> <div>Checks whether contain the product</div> <div>Checks whether contain the distribution center</div> <div>Get category</div> <div>Get product</div> <div>Get distribution center</div>	<div>User</div> <div>Administrator</div> <div>Shopper</div> <div>ShoppingCart</div> <div>BackgroundManager</div> <div>Category</div> <div>Product</div> <div>Graph</div> <div>DistributionCenter</div> <div>Customer</div>

<div>Serializable</div> <div>Customer</div>	
<div>Name</div> <div>City</div> <div>Street</div> <div>Customer ID</div> <div>Orders</div> <div>Invoices</div> <div>Place order</div> <div>Get delivery route</div> <div>Get delivery fee</div>	<div>Background</div> <div>Shopper</div> <div>Order</div>

<div>Serializable</div> <div>Edge</div>	
<div>Destination</div> <div>Weight</div>	<div>Vertex</div> <div>Algorithm</div>

Serializable <div>Graph</div>	
Vertices Whether is empty Add vertices Add edge Get all vertices Get route Get shortest distance Get vertices Whether has a certain vertex	Vertex Background Algorithm

Serializable <div>ShoppingCart</div>	
Products Add product Remove product Empty shopping cart	Product Background Shopper NotAvailableException

<div>UserManager</div>	
List of users Add users Save users to file Read users from file	User

<div>NotAvailableException</div>	
A exception	Shopping cart

BackgroundManager	
list of background Add background Save background to file Read background from file	Background

Serializable	
DistributionCenter	
City Product Return the available quantities Add quantities	Background

Serializable Comparable	
Vertex	
City List of adjacent edges Distance Mark Previous vertex Mark the vertex Get adjacent vertex Set the previous vertex Get the weight of a vertex Compare to the other vertex Check whether two vertices are equal	Edge Graph Algorithm

Algorithm	
A list of cities Get the shortest route between two cities Get the string representation of the shortest route	Vertex Edge