

ISYG 100 :Application Engineering and Development

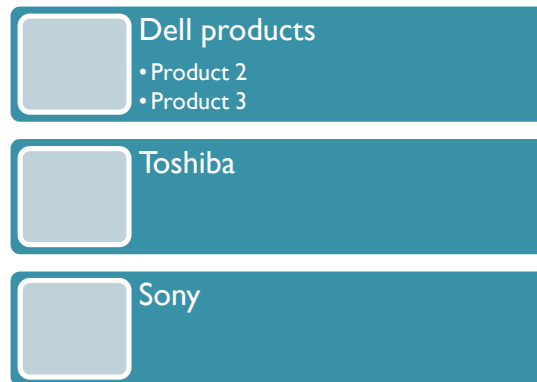
Lab 4 : How to implement Multi-Party Relationships?



The problem

- Best Buy wants to build a web application to make it easy for their customers to browse and learn more about all their products

Combined product offerings



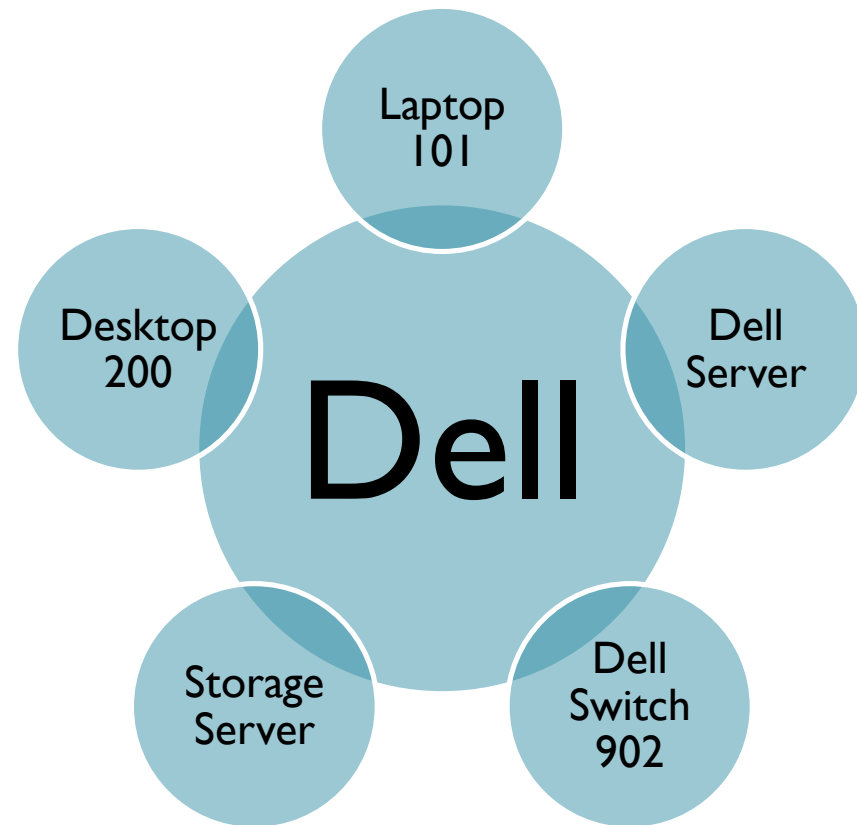


Who are the players?

Best Buy sells products from multiple suppliers



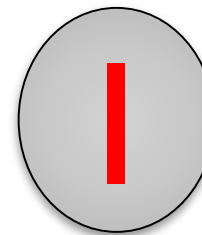
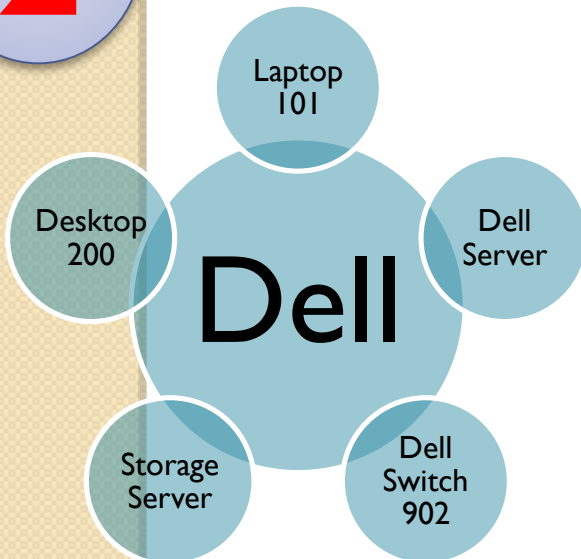
Best Buy wants each supplier to manage their own catalog of products



Best Buy will register each supplier first and from then on each supplier must keep its product catalog up to date.

2

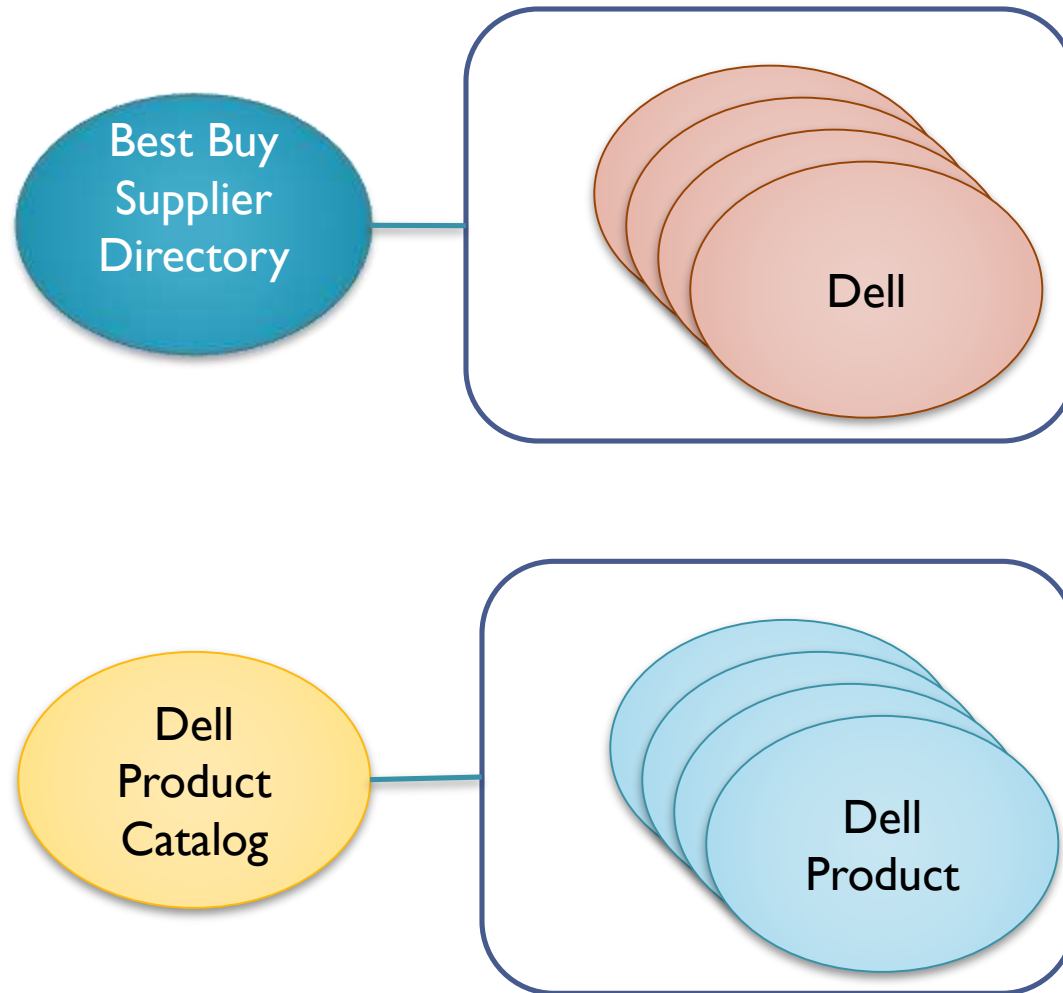
Manage Own Product Catalog



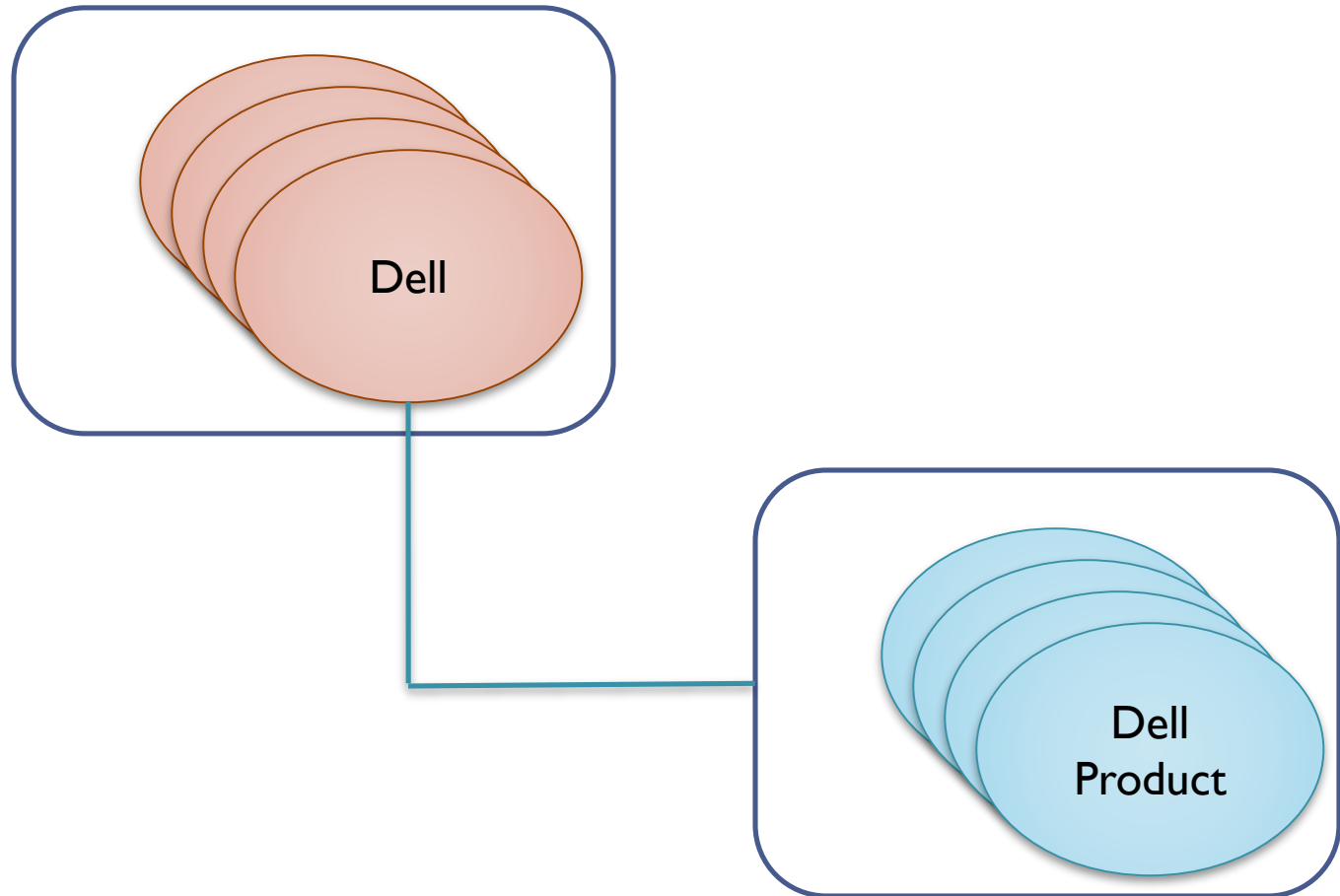
Register Suppliers



What do we know so far?

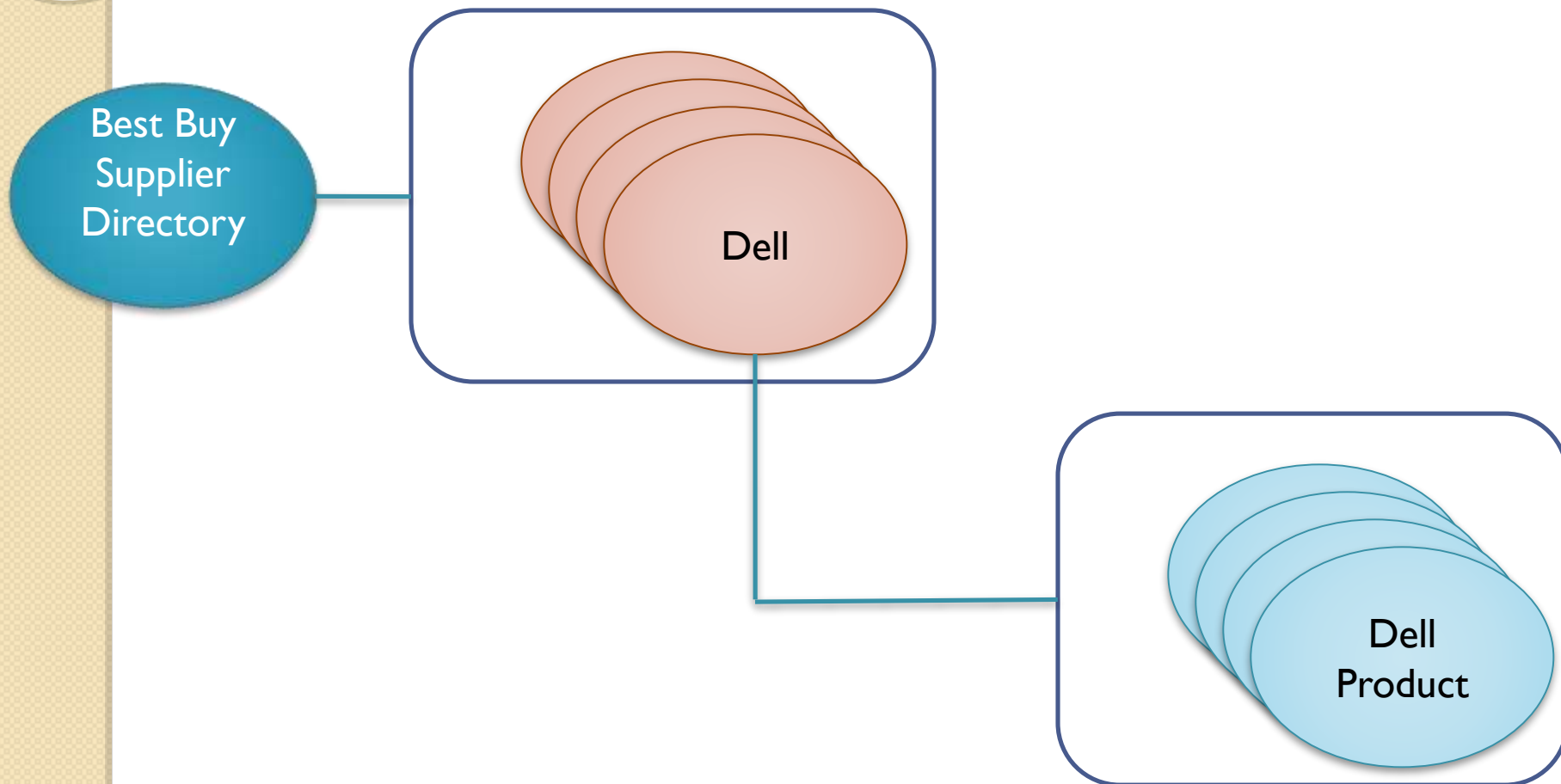


Each supplier offers many products



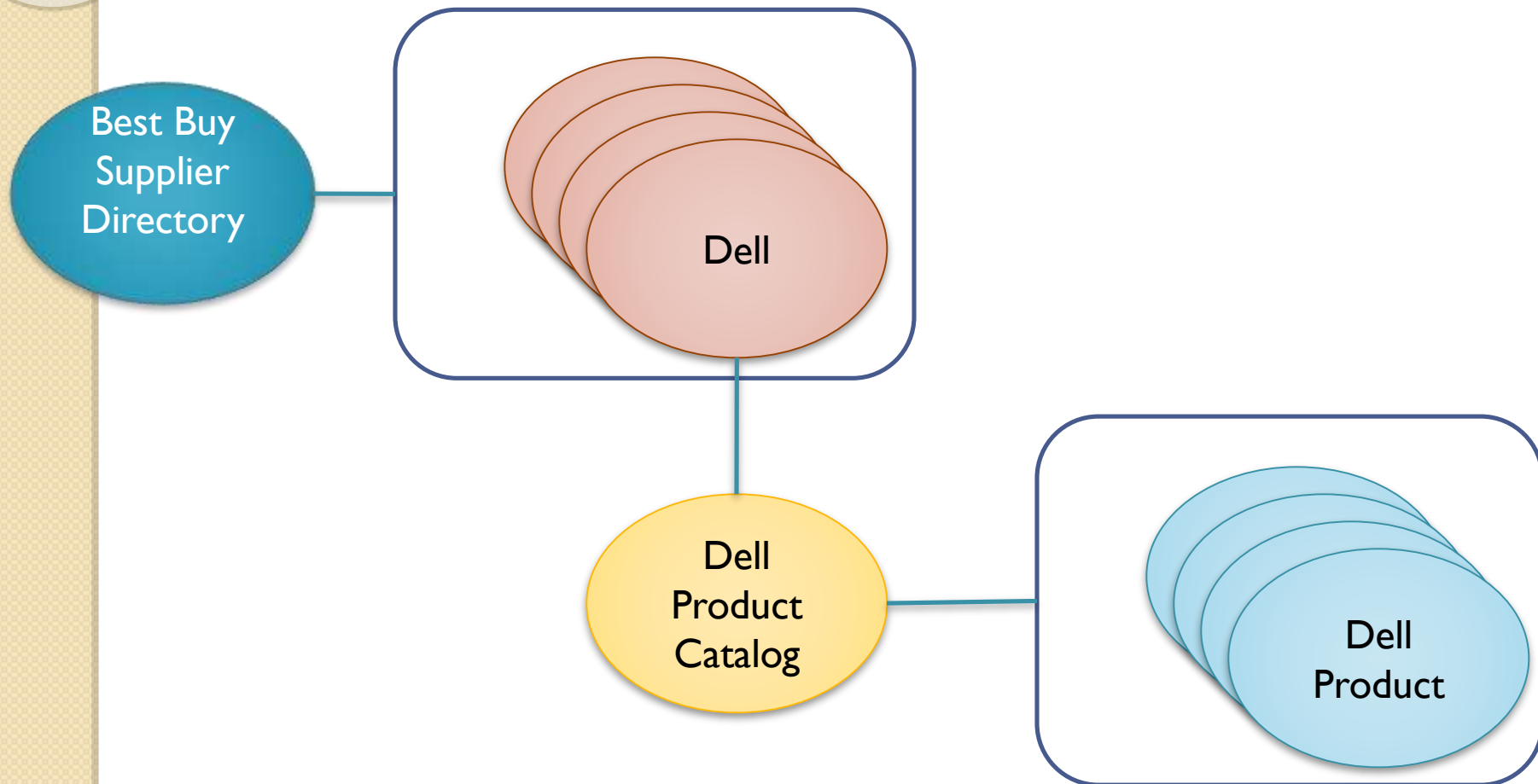
Best Buy has many suppliers

Each supplier offers many products

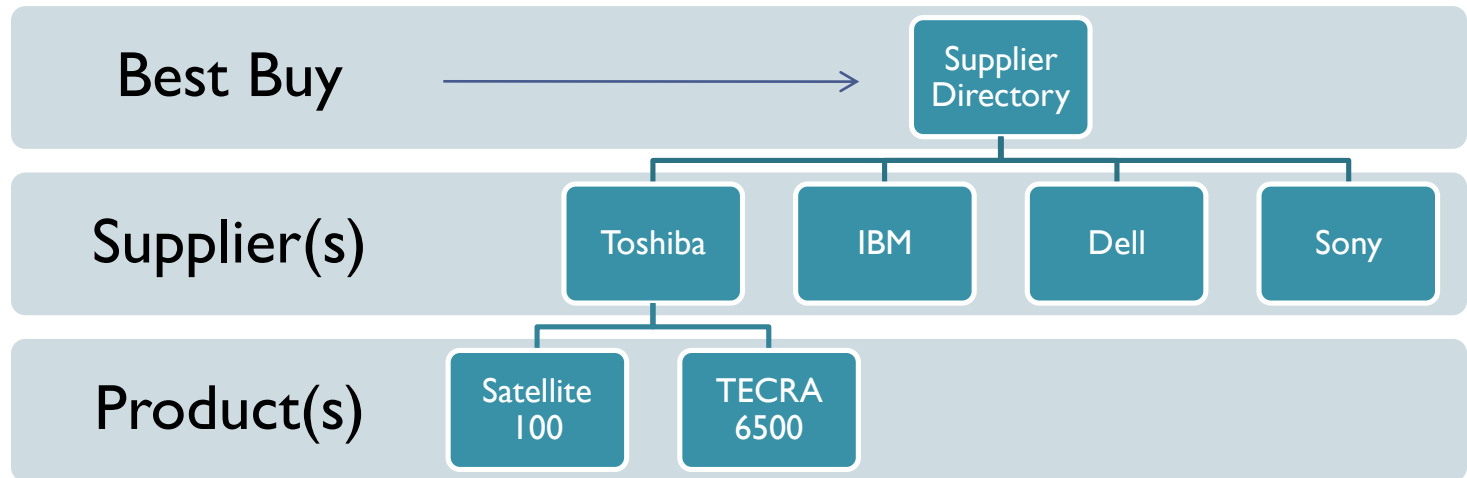


Suppliers represented as a directory

Products represented as a catalog



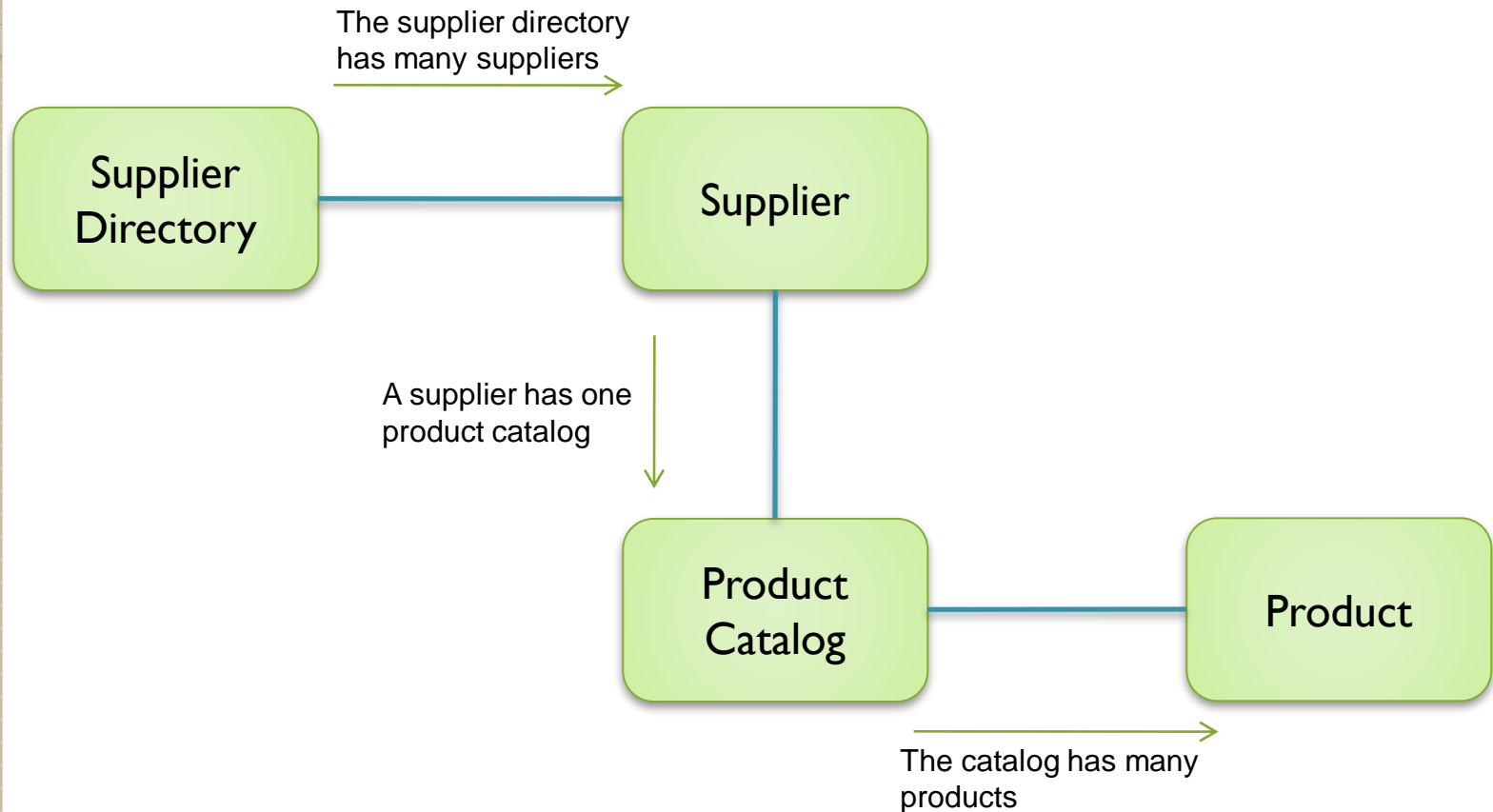
Hierarchy Structure



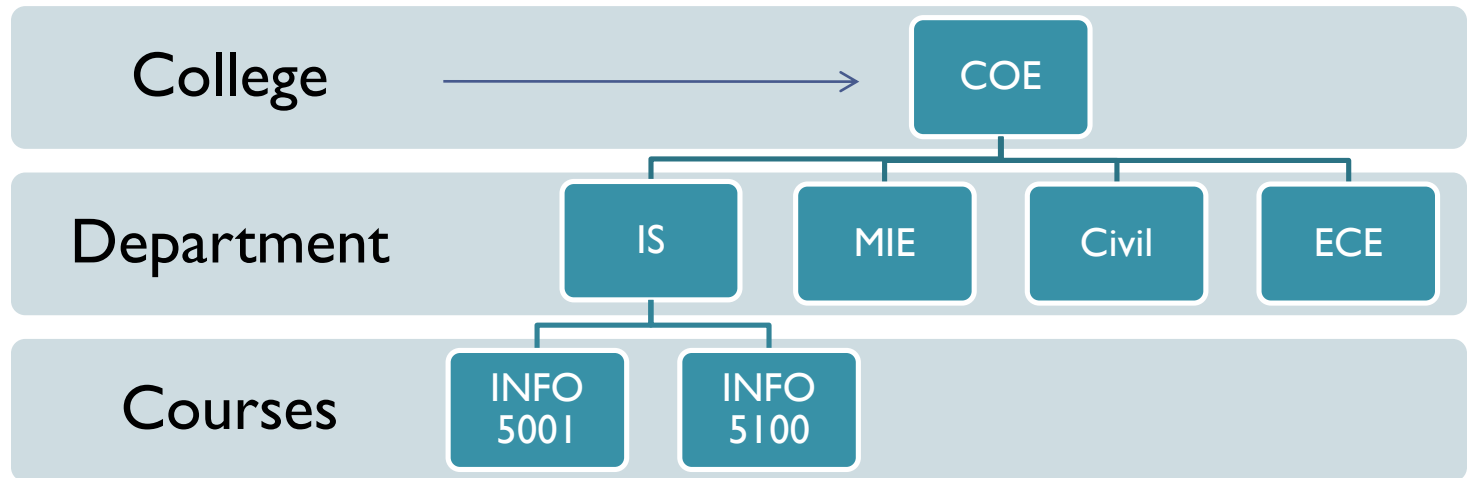
What is a higher level component?

What would be a lower level component?

The Business Model



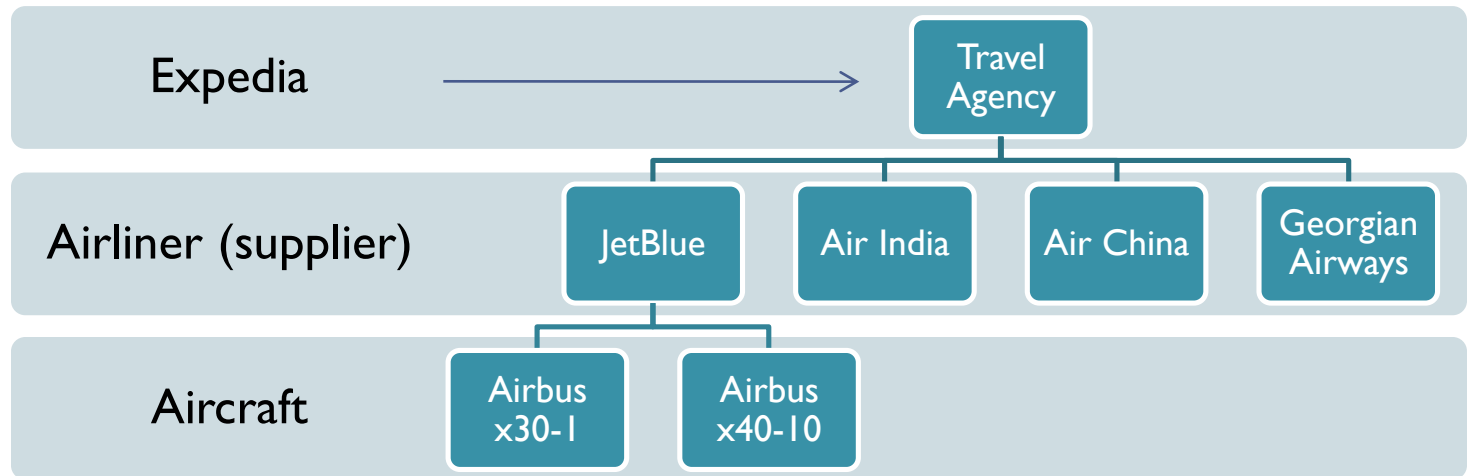
Hierarchy Structure Example



What is a higher level component?

What would be a lower level component?

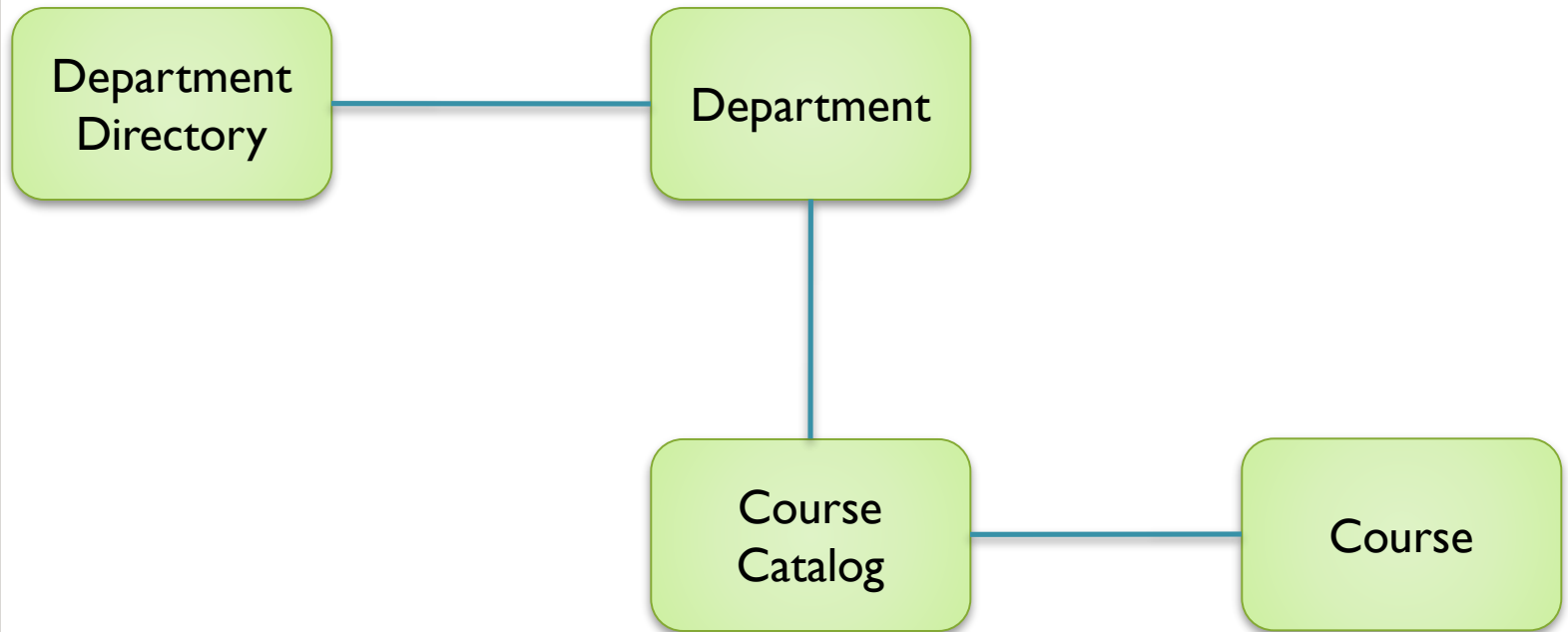
Hierarchy Structure Example



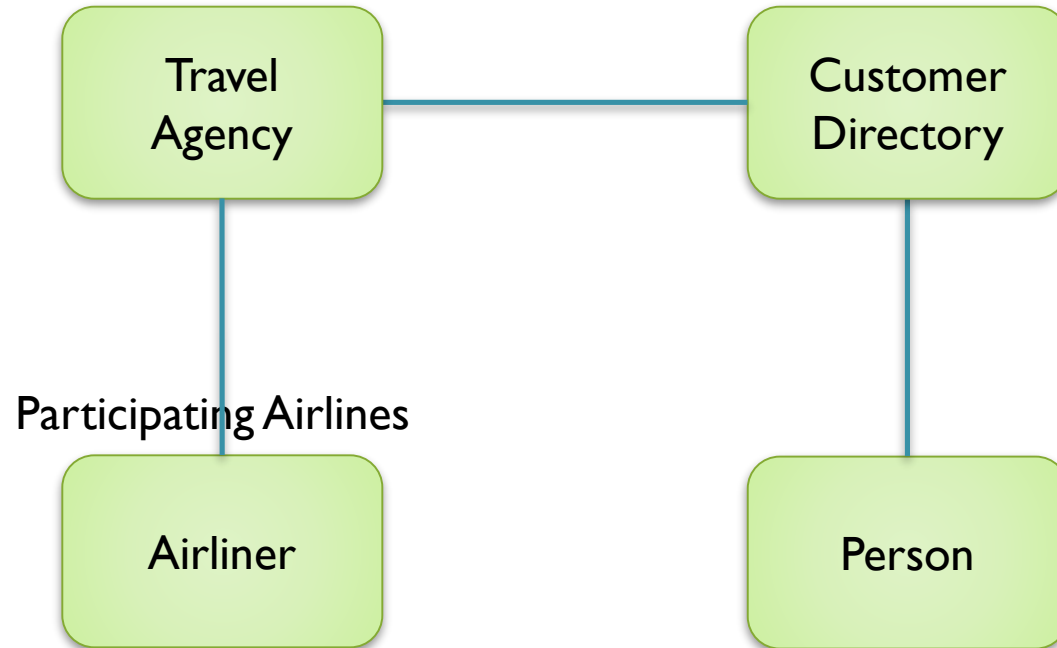
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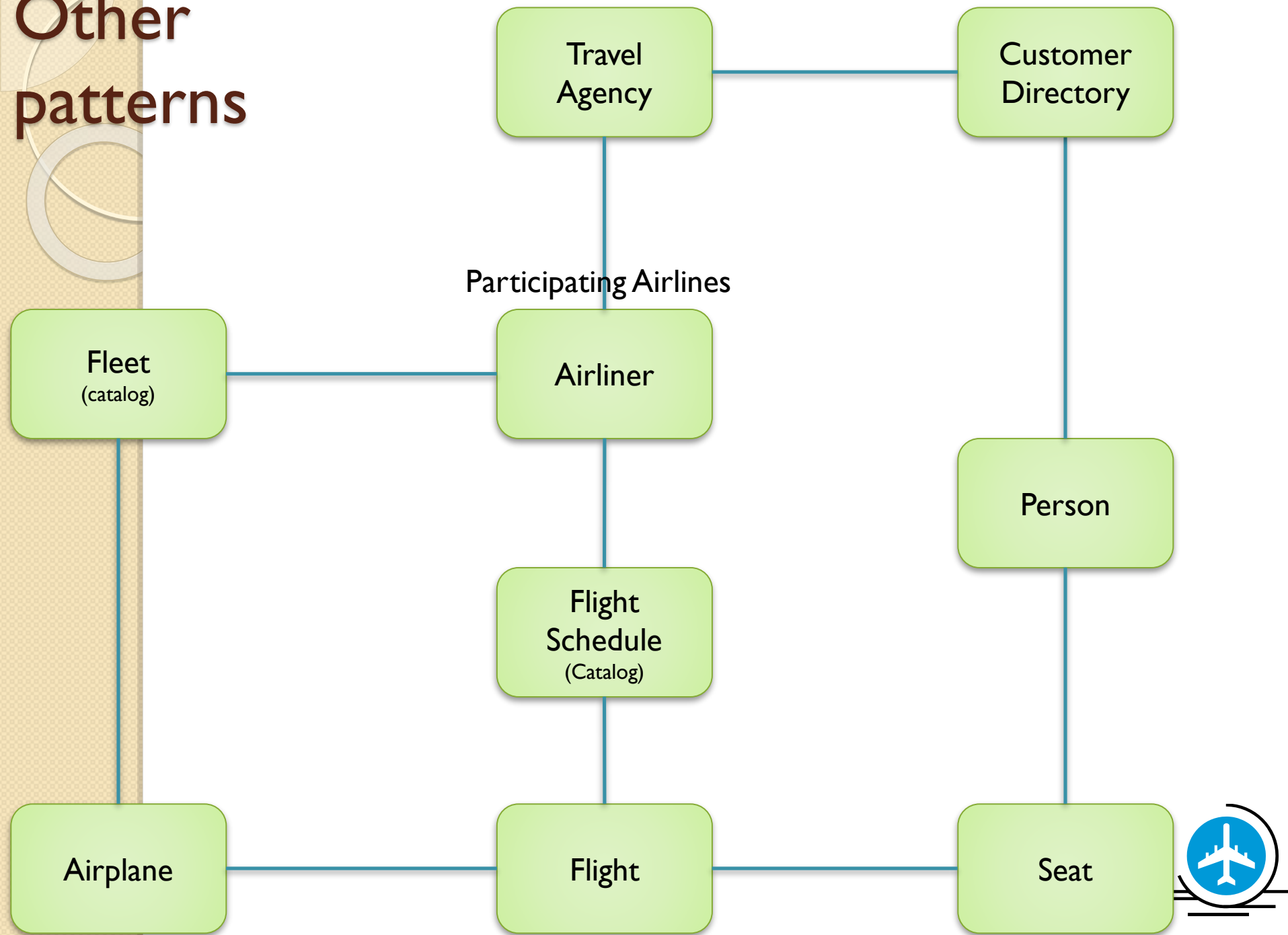
Other patterns

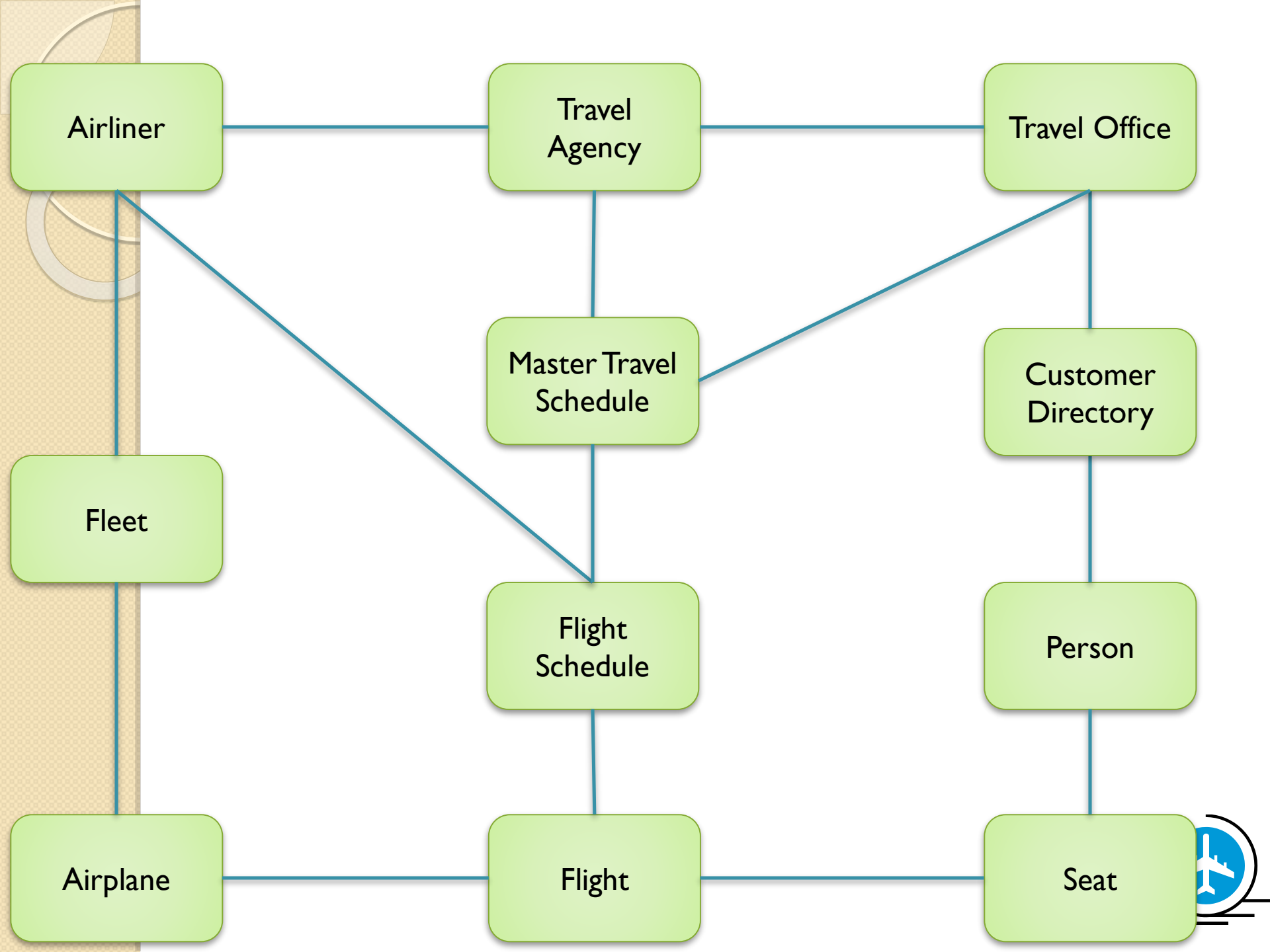


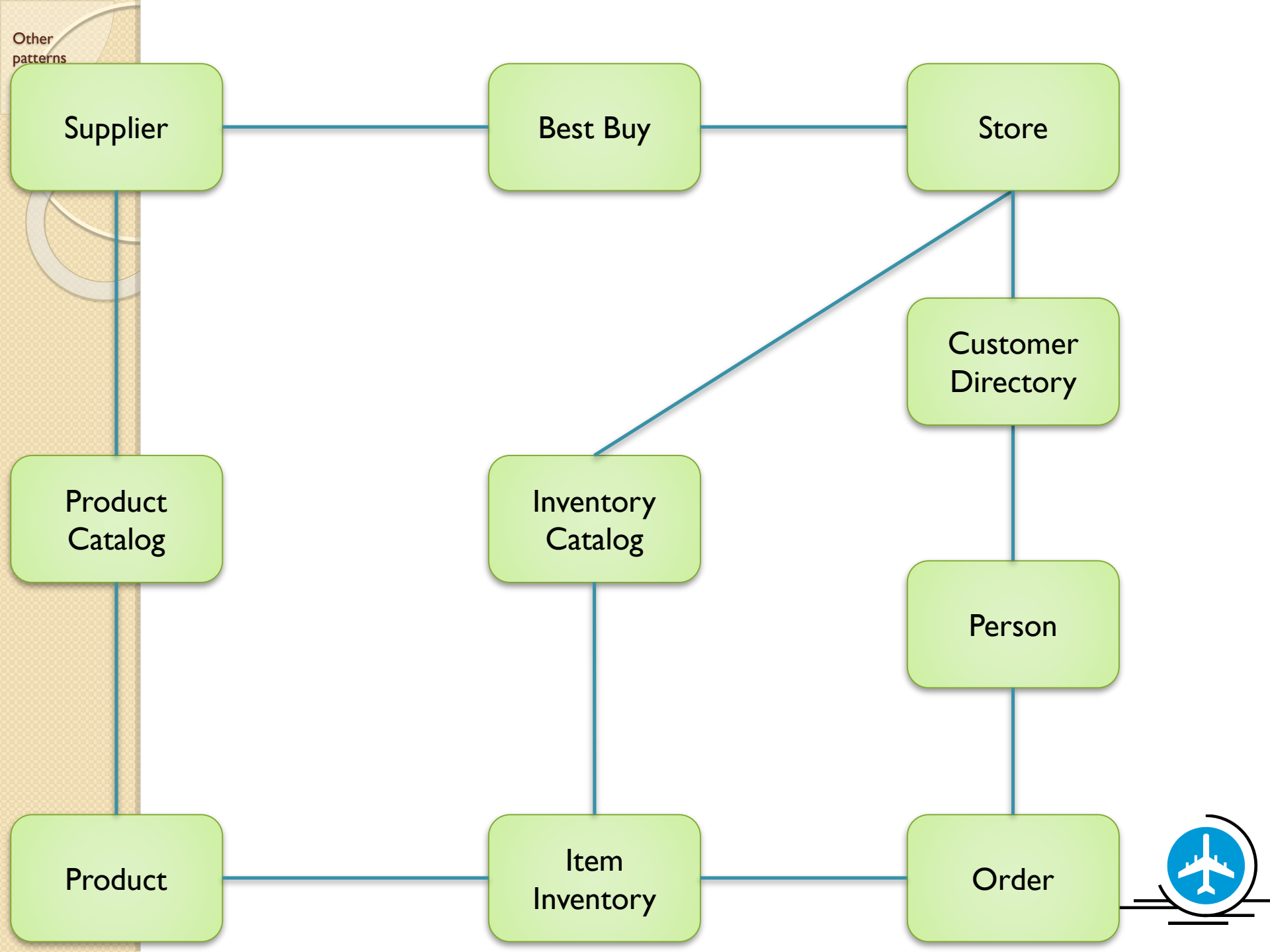
Other patterns



Other patterns







DIGITAL DISRUPTION

has already happened



World's largest
taxi company
owns no taxis

► UBER



Largest
accommodation provider
owns no real estate

► AIRBNB



Largest
phone companies
own no telco infra

► SKYPE / WECHAT



World's most
valuable retailer has
no inventory

► ALIBABA



Most popular
media owner
creates no content

► FACEBOOK



Fastest growing
banks have
no actual money

► SOCIETY ONE




World's largest
movie house owns
no cinemas

► NETFLIX



Largest
software vendors
don't write the apps

► APPLE / GOOGLE

- 
- Crew
 - Airplane crew
 - Departure time
 - Destination
 - Next Maintenance date
 - Model and serial numbers
 - Seat status
 - Find flight to location (e.g., london)
 - Passenger Capacity
 - Fuel Capacity
 - Find cheap flight to London (on xmas eve please)
 - Schedule a tour around the world (including a 2 day stop in Disneyland)
 - From destination
 - All the company's airplanes that need maintenance soon
 - Cancel my travel plan
 - Who are the top 10 best travellers
 - Create promotion for a exotics trip to South Africa



Implementation

Approach

1. Manage a supplier database

- Add a supplier
- Update a supplier
- Remove/Disable a supplier

2. Manage product catalog

- Add product
- Remove product
- Update a product

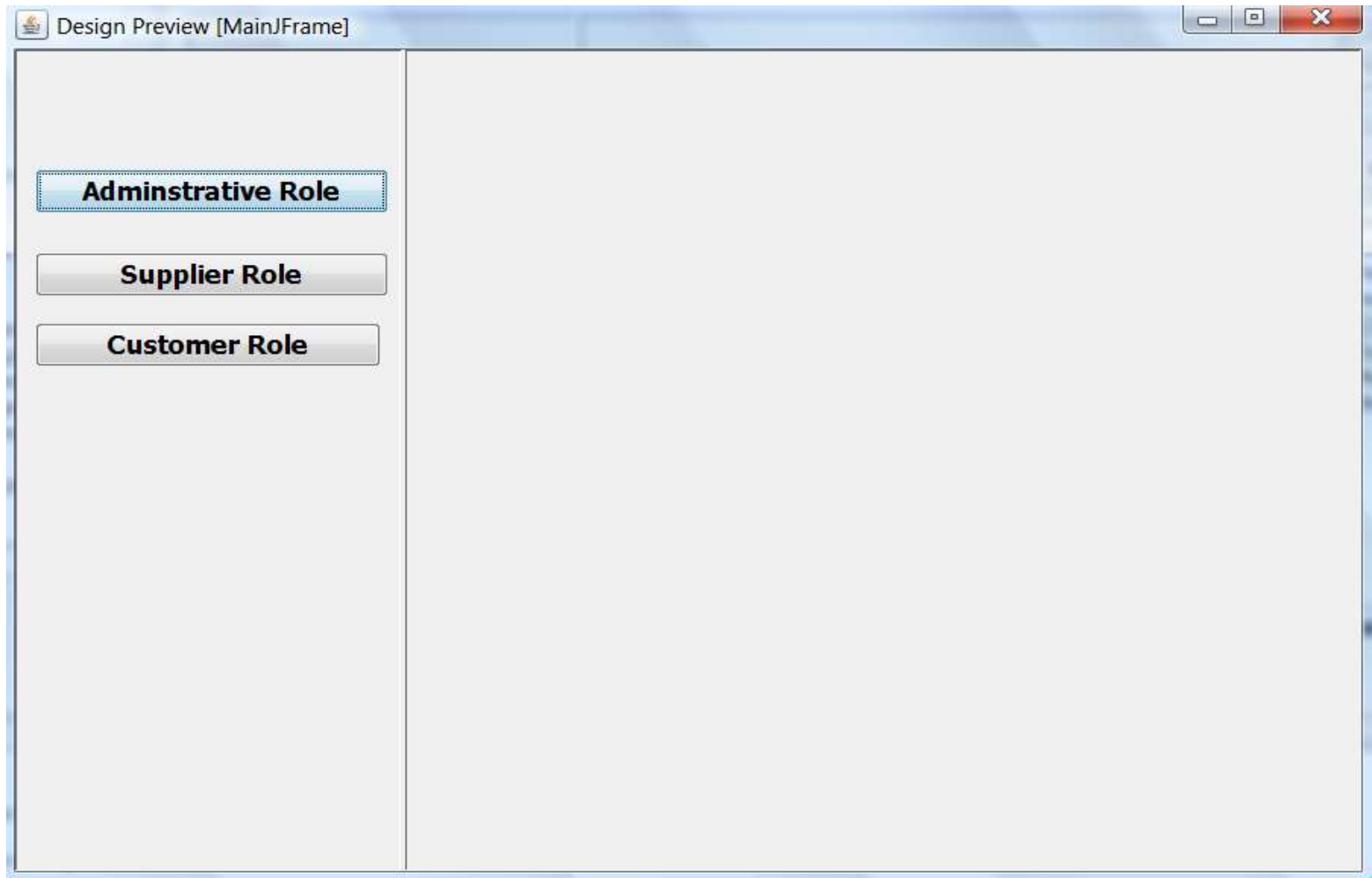
Manage Suppliers Use Case

- System displays admin work area identifying the admin name
- System offers two options: view or browse supplier directory
- User chooses to view or browse supplier directory
- System displays supplier directory
- User chooses to:
 - Add a supplier and returns to previous screen
 - To view a supplier in detail
 - Upon viewing a supplier, the user might choose to update the supplier information

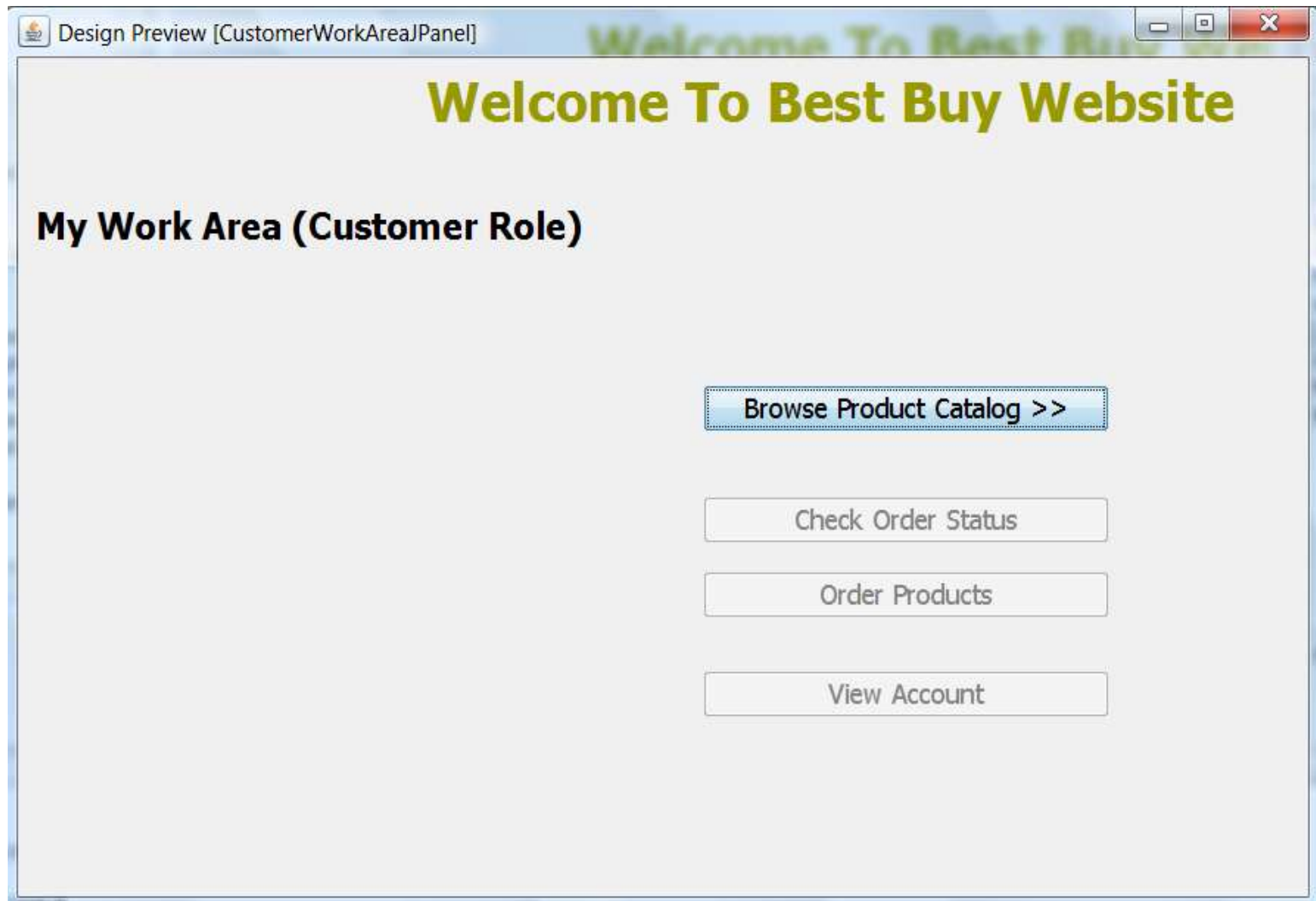
Supplier Use Case

- Supplier logs in using supplier name
- System checks if the supplier is valid and if successful displays supplier work area identifying the supplier name
- Supplier chooses to view or browse product catalog
- System displays product catalog
- User chooses to:
 - Adds a product and returns to previous screen
 - User adds a product and returns to previous screen
 - To view a product in detail
 - Upon viewing a product, the user might choose to update it

Input: SupplierDirectory



Input: SupplierDirectory



Input: SupplierDirectory

Design Preview [BrowseProducts]

Welcome To Best Buy Website

Browse Products

Supplier

Supplier Product Catalog

Product Id	Name	Price	Availability

<< Back

View Product Detail

What is the input to this screen?

Design Preview [ViewSupplierProductDetailJPanel]

View Product Detail

Product Name:

Product Price:

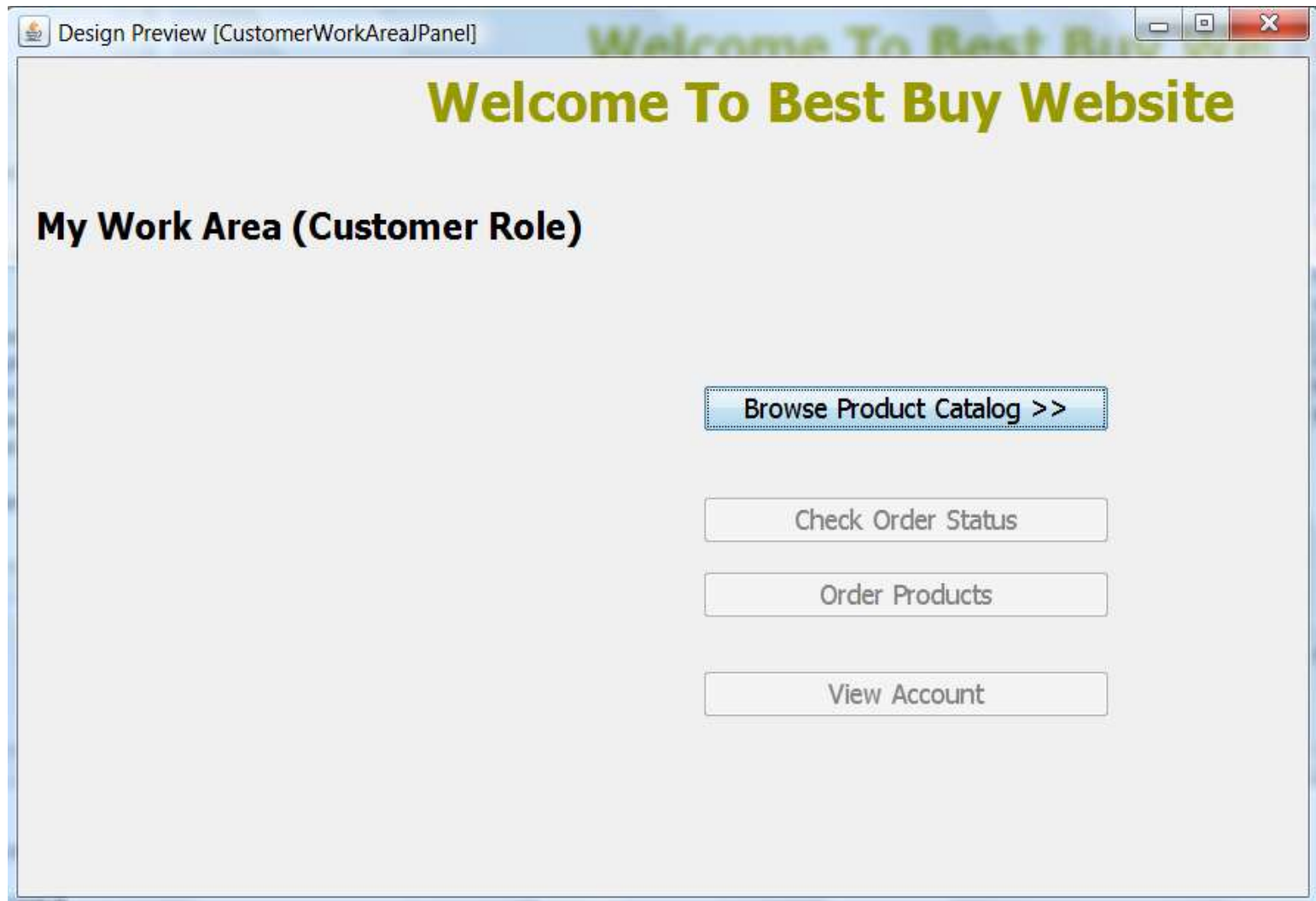
Product Availability:

Supplier

Input: SupplierDirectory



Input: SupplierDirectory



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Supplier Product Catalog

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