

ISYGI00 :Application Engineering and Development

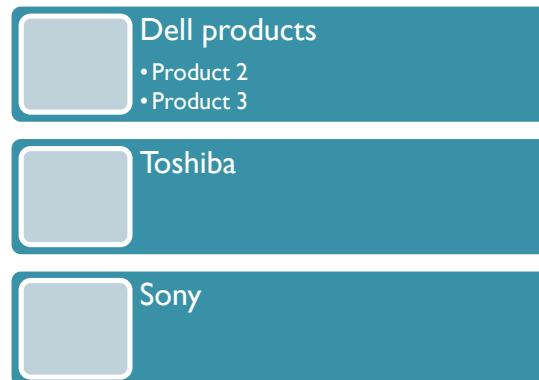
Lab 4 : How to implement Multi-Party
Relationships?



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



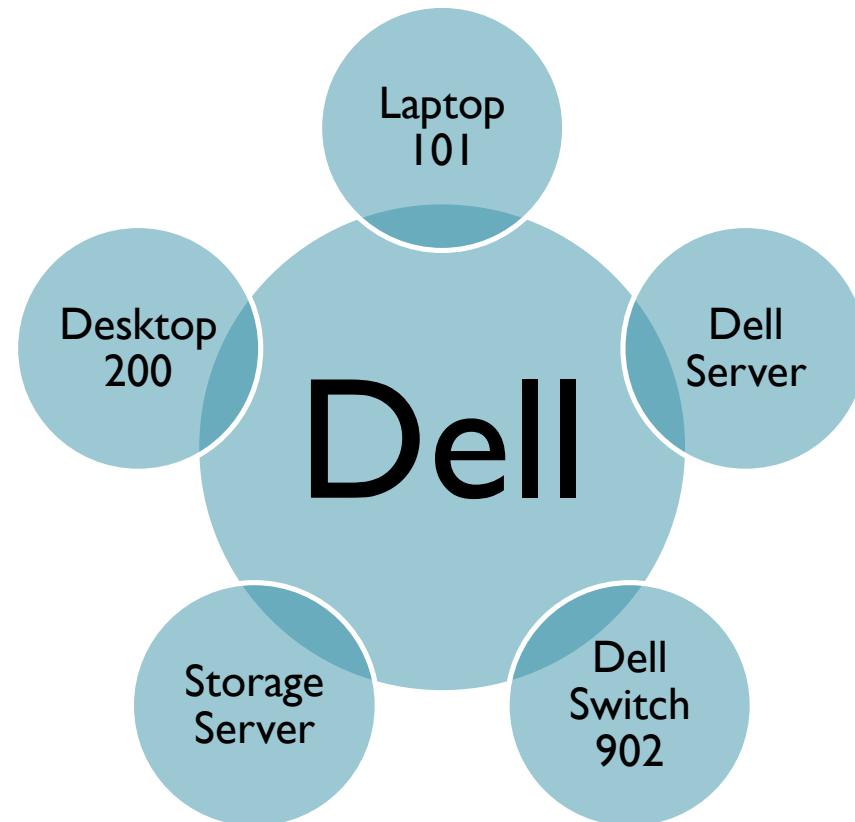


Who are the players?

Best Buy sells products from multiple suppliers



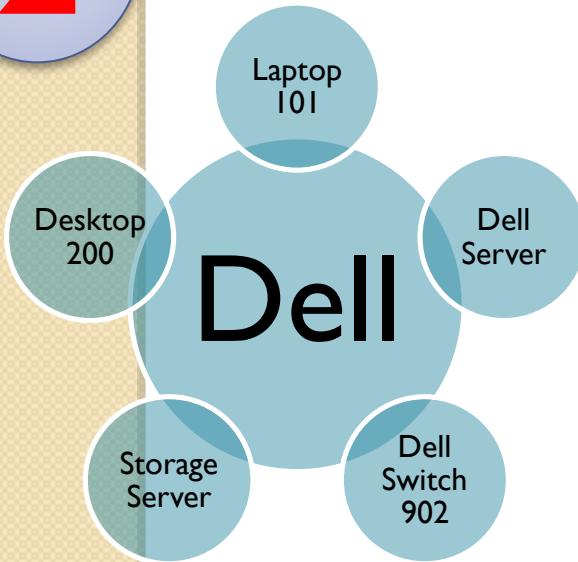
Best Buy wants each supplier to manage their own catalog of products



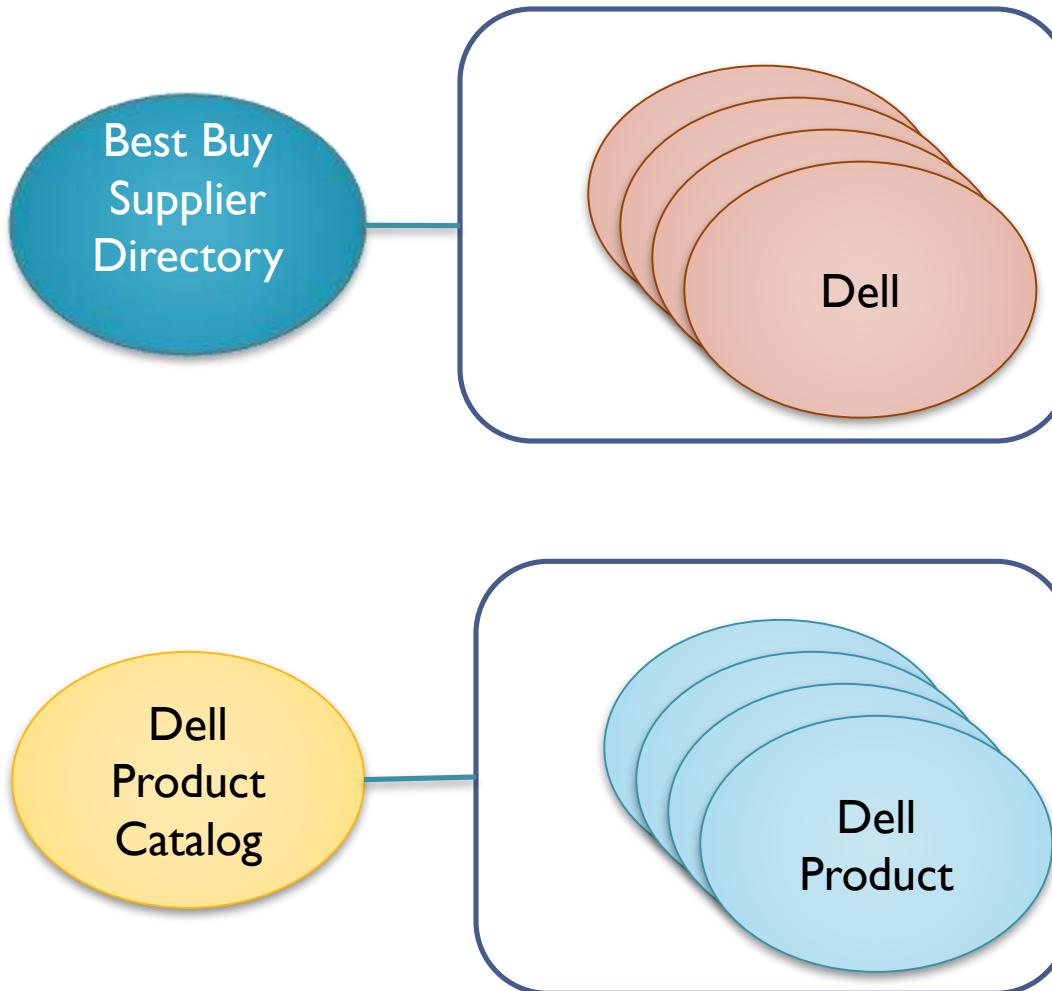
Best Buy will register each supplier first and from then on each supplier must keep its product catalog up to date.

2

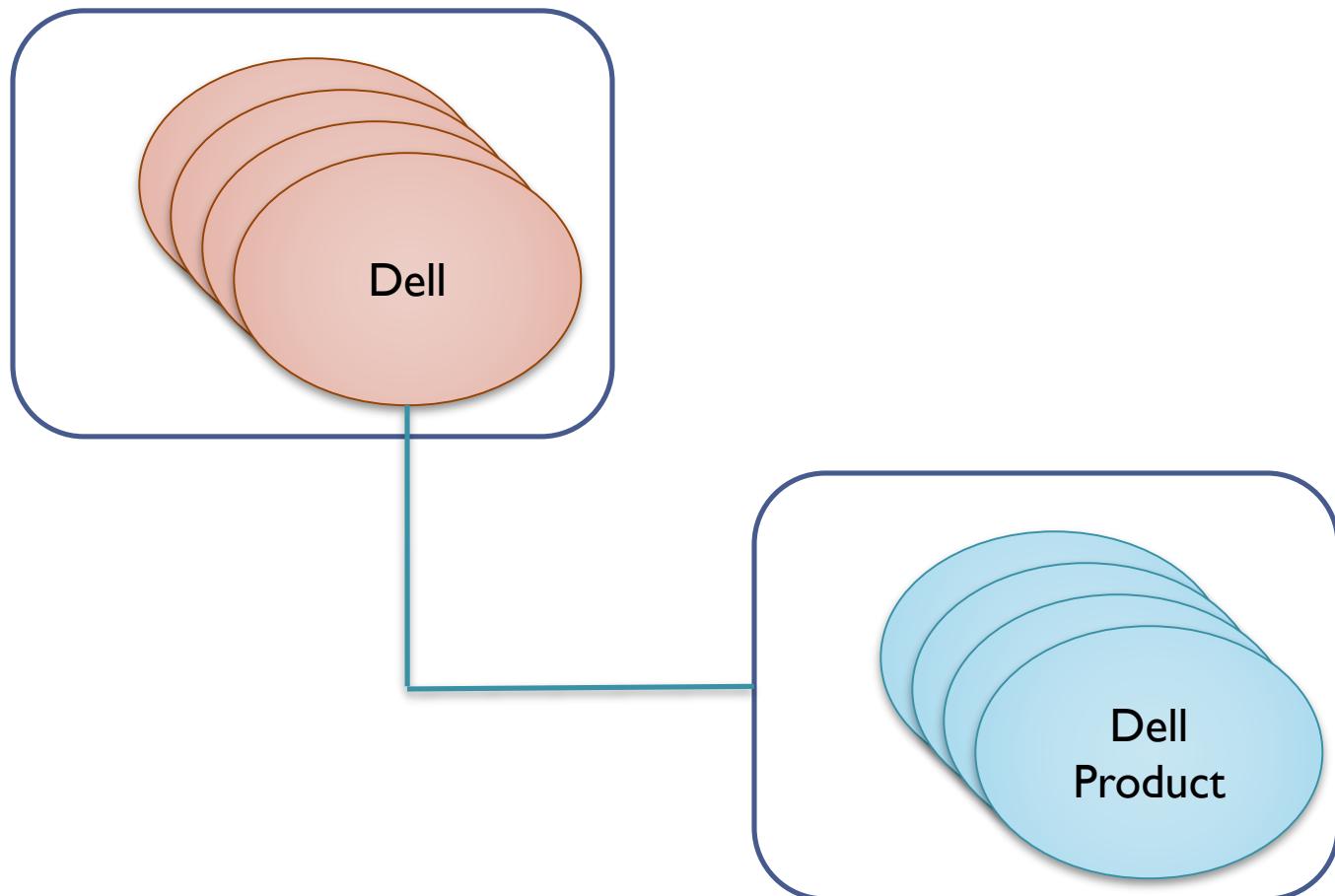
Manage Own Product Catalog



What do we know so far?

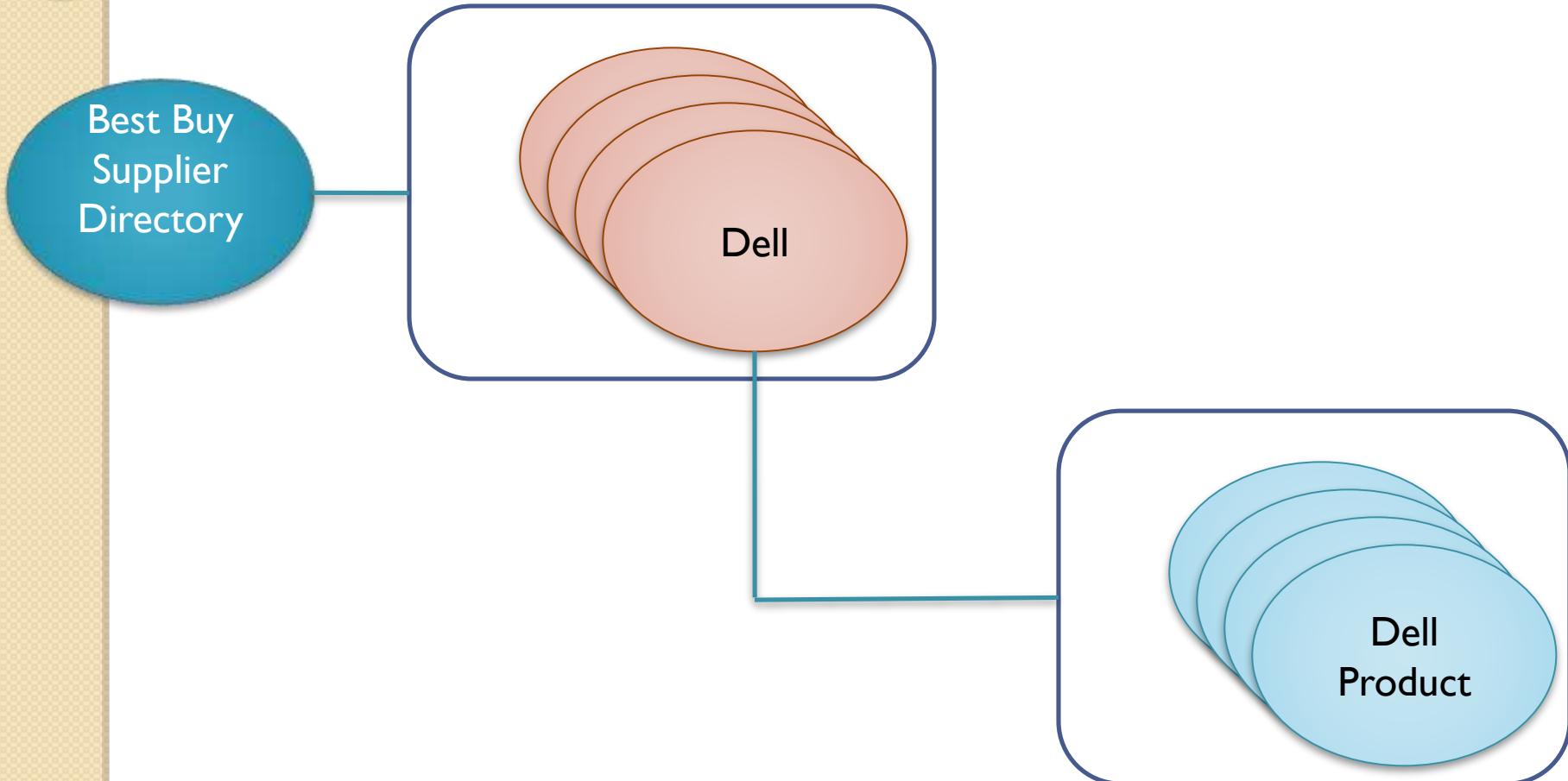


Each supplier offers many products

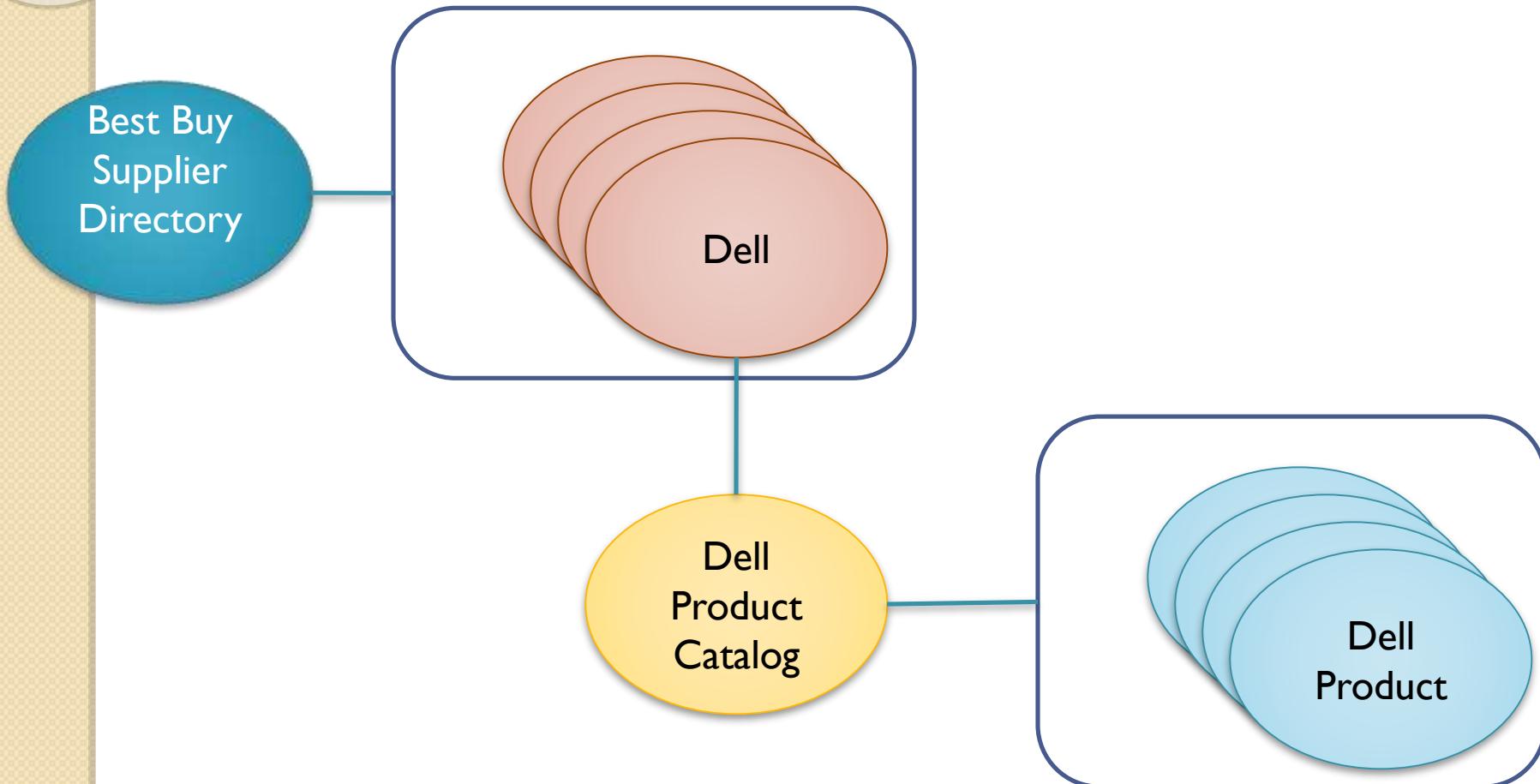


Best Buy has many suppliers

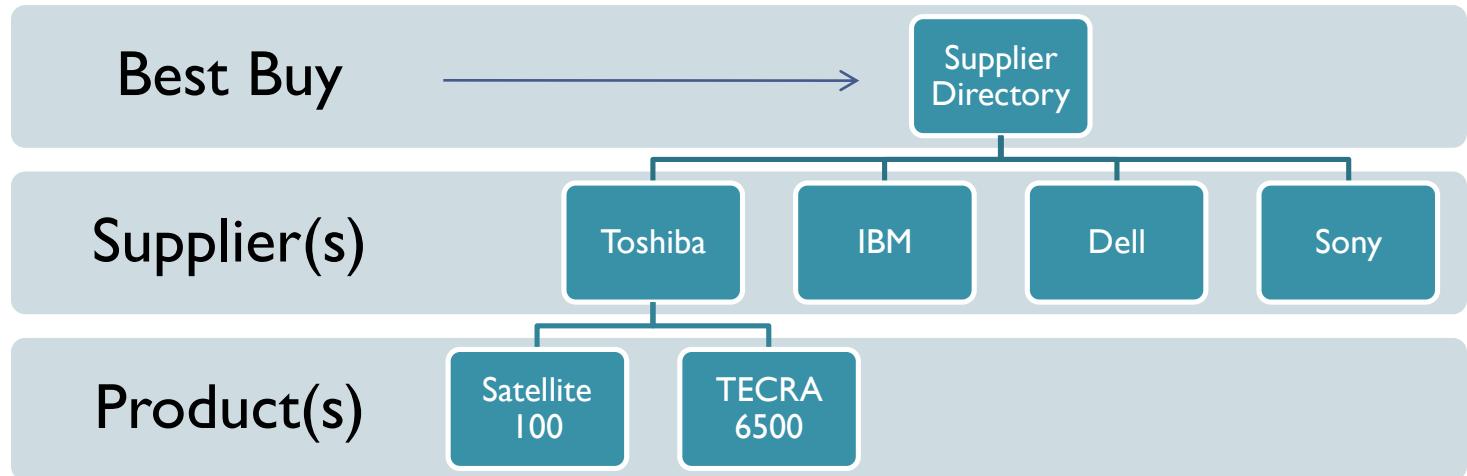
Each supplier offers many products



Suppliers represented as a directory Products represented as a catalog



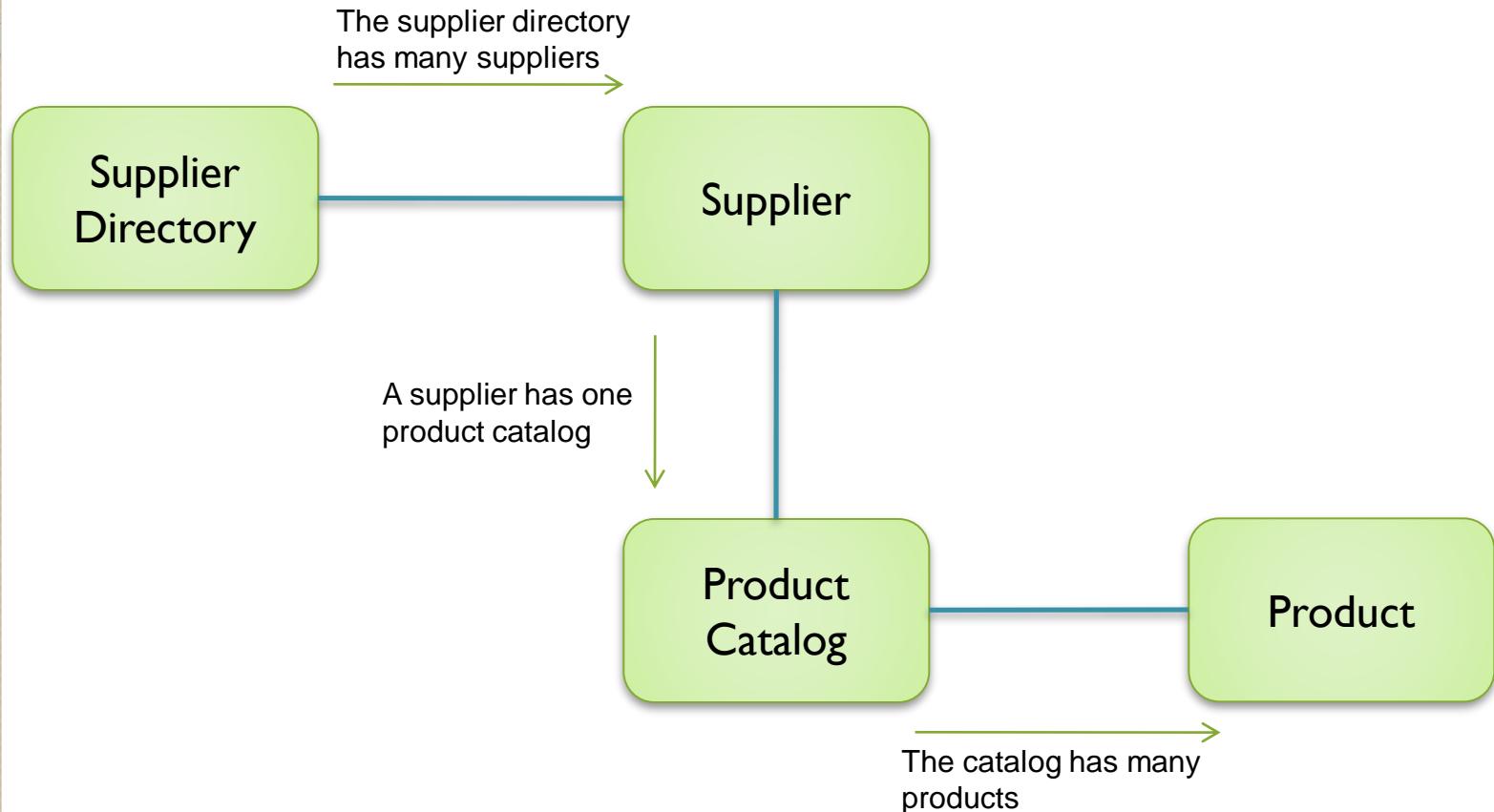
Hierarchy Structure



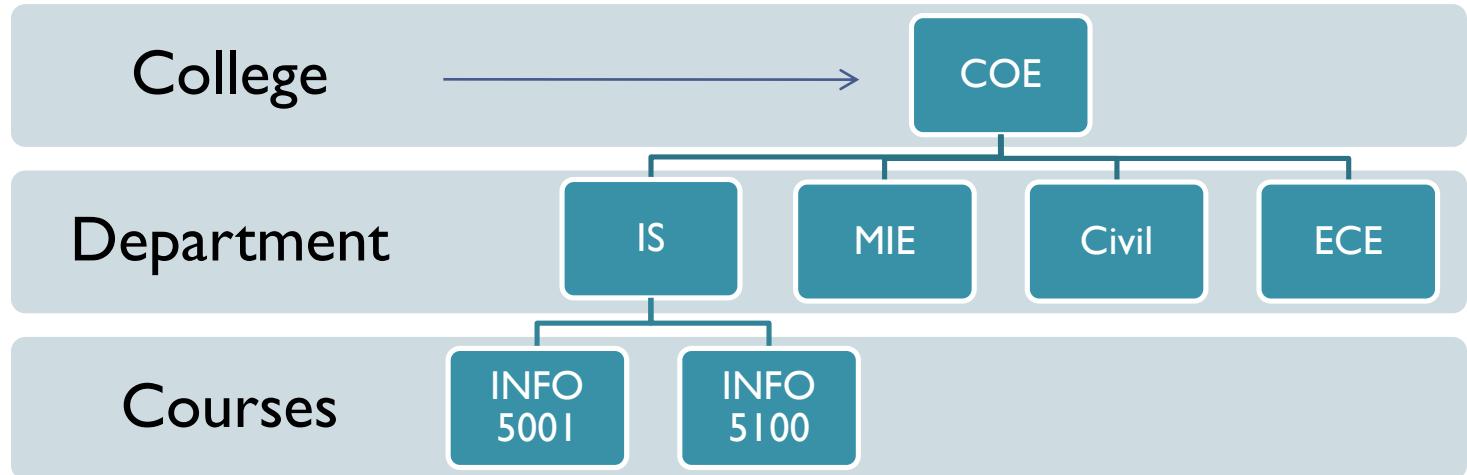
What is a higher level component?

What would be a lower level component?

The Business Model

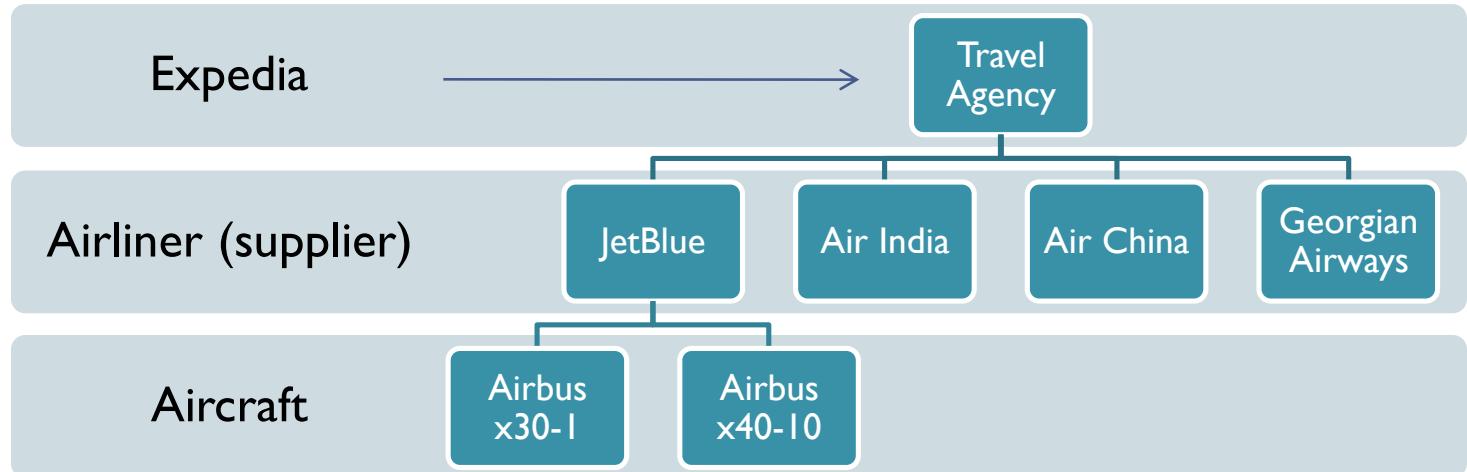


Hierarchy Structure Example



What is a higher level component?
What would be a lower level component?

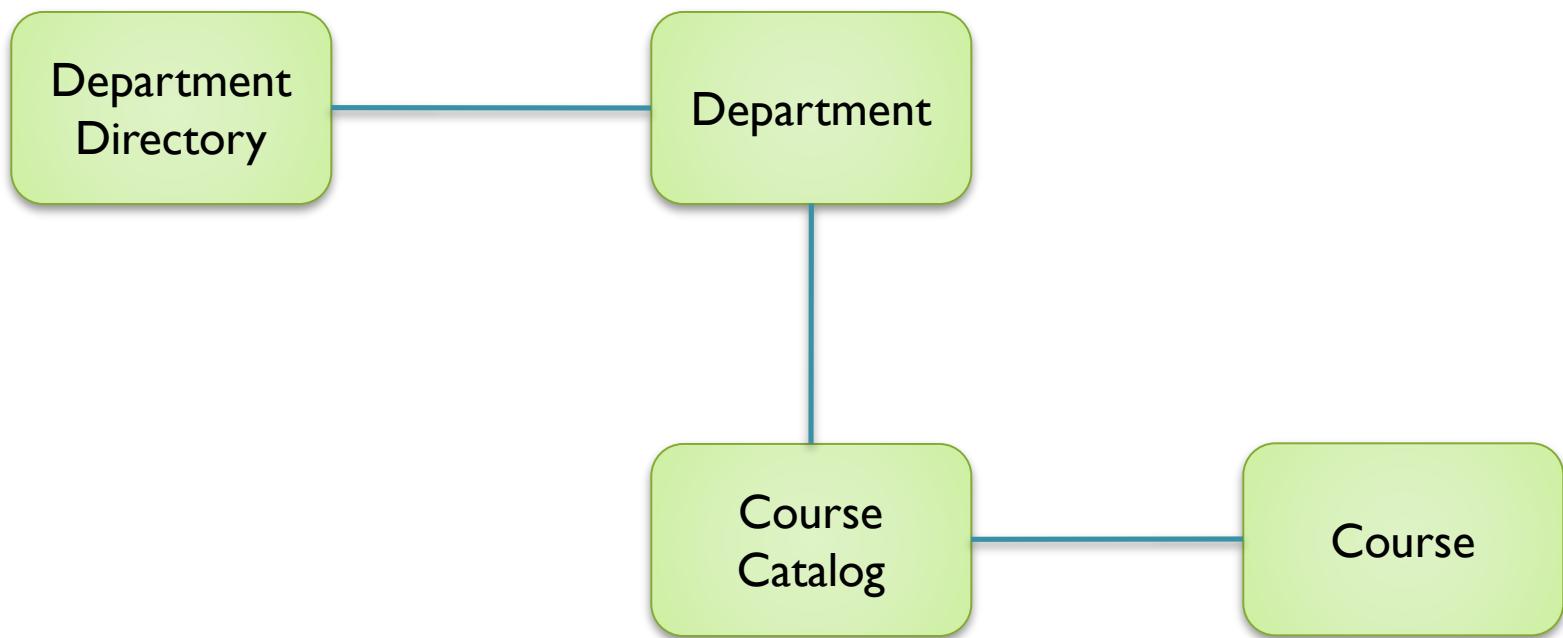
Hierarchy Structure Example



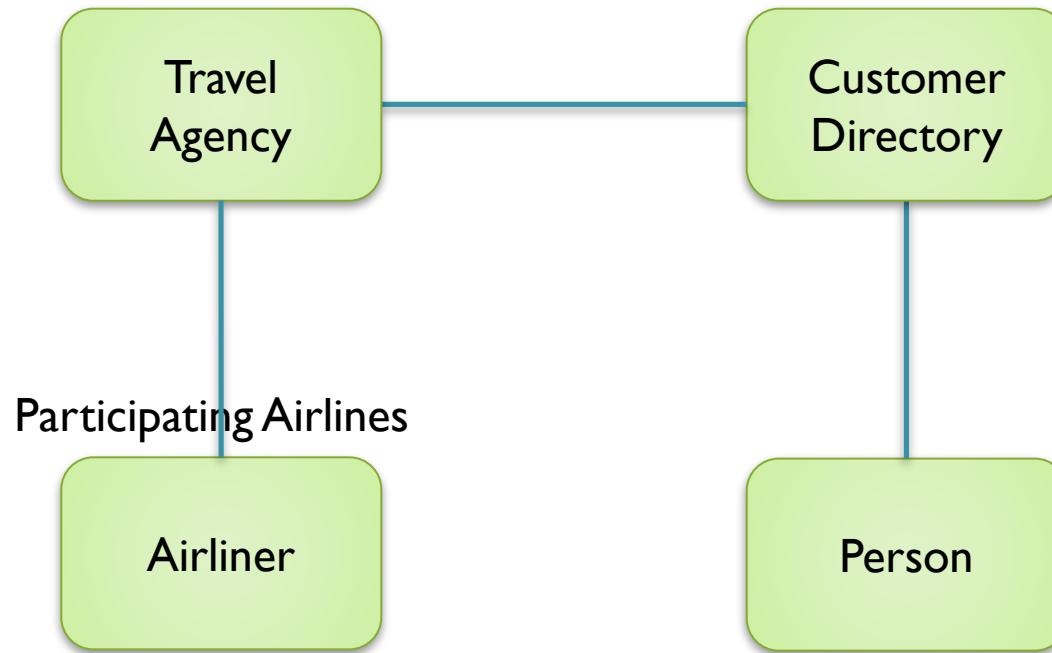
What is a higher level component?

What would be a lower level component?

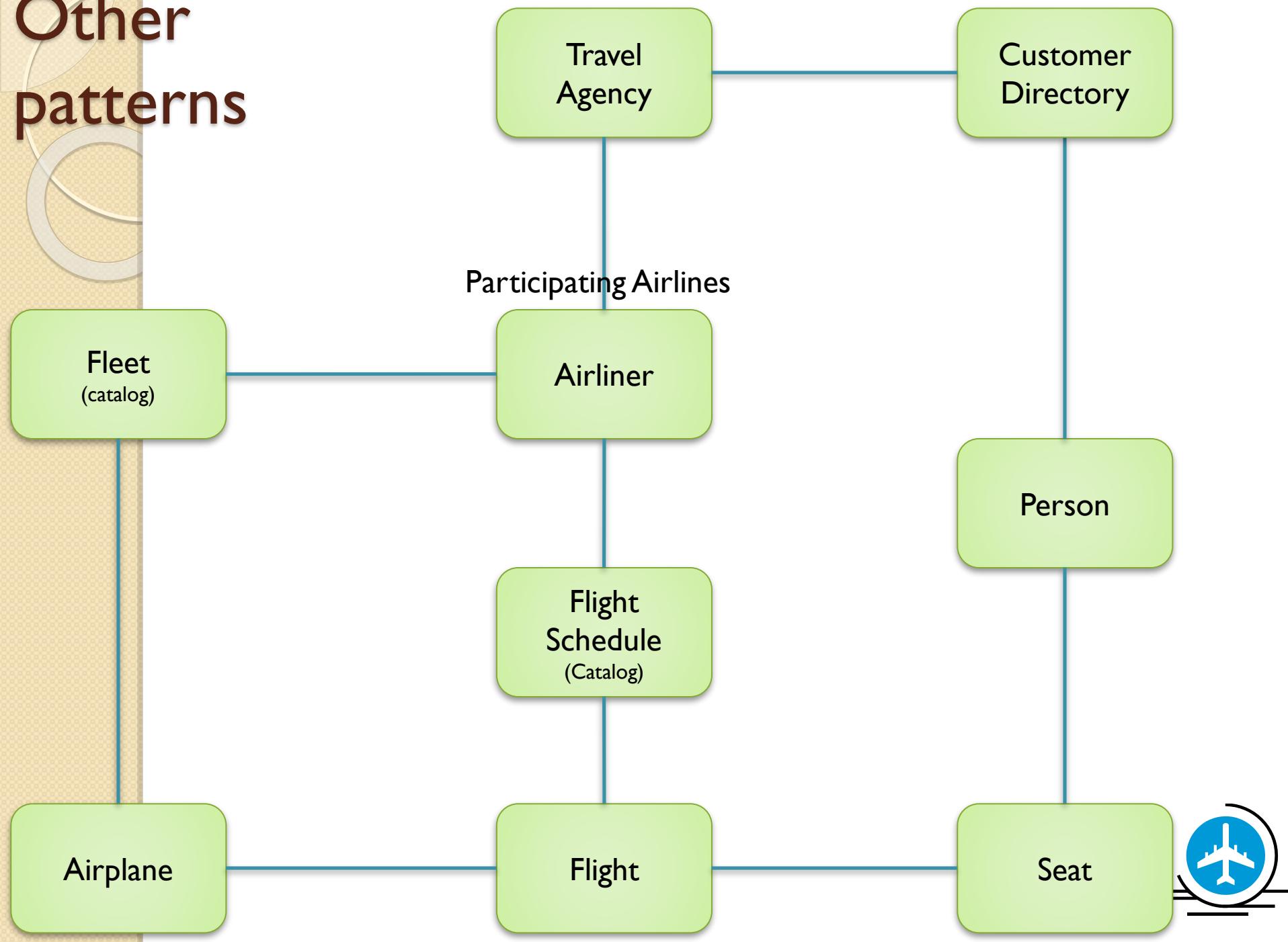
Other patterns

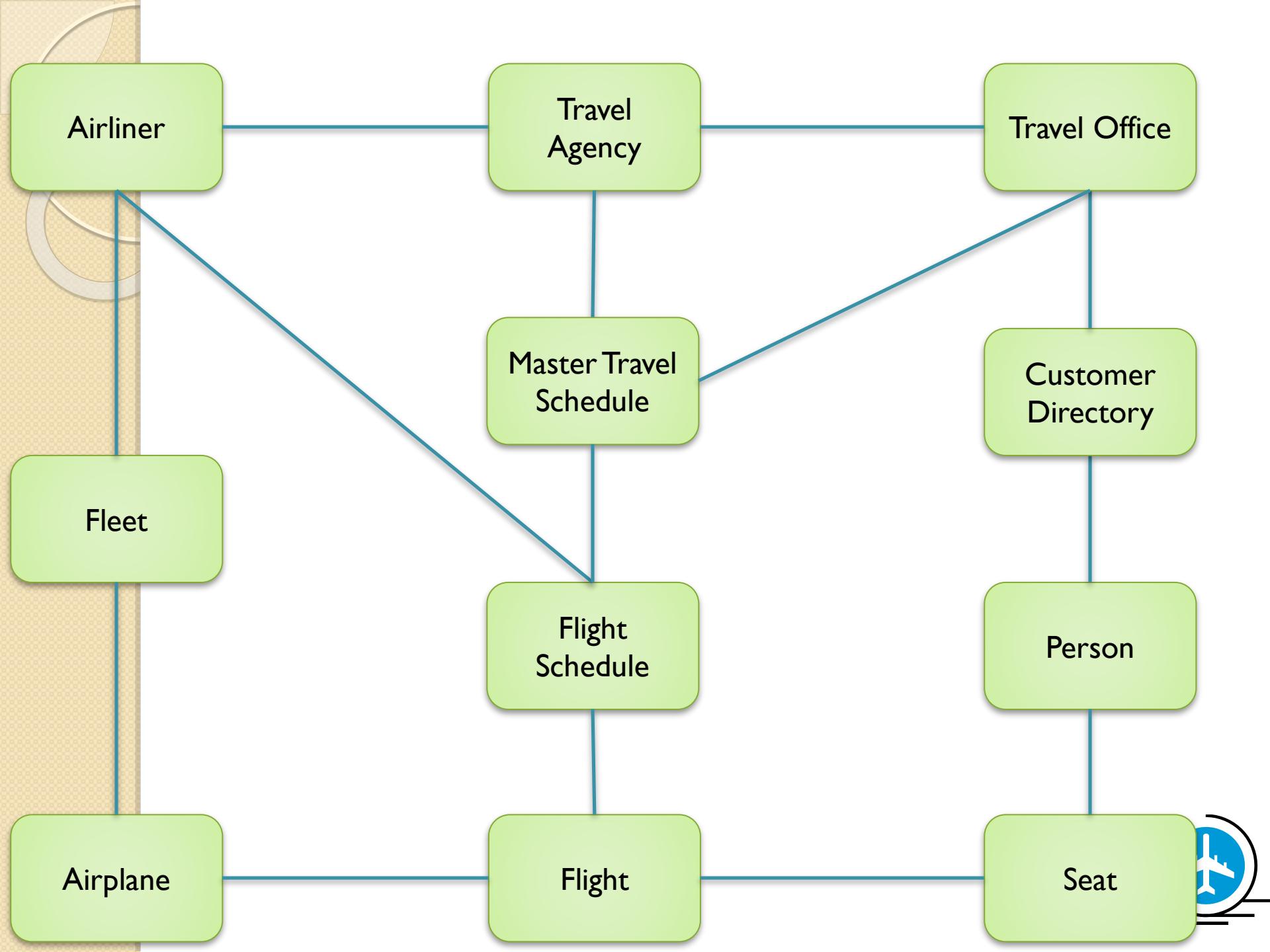


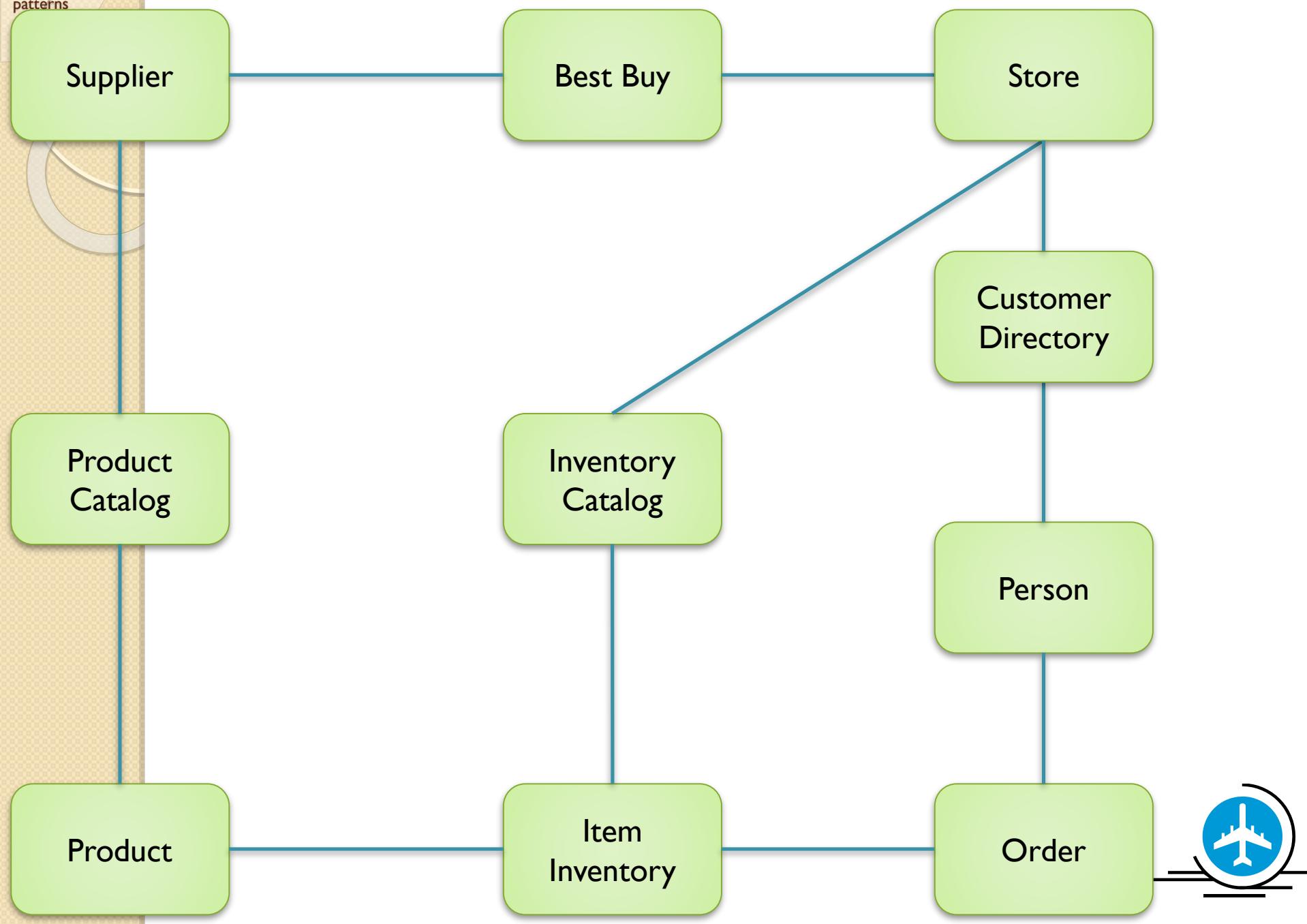
Other patterns



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 exotic trip to South Africa

Implementation

Approach

I. 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

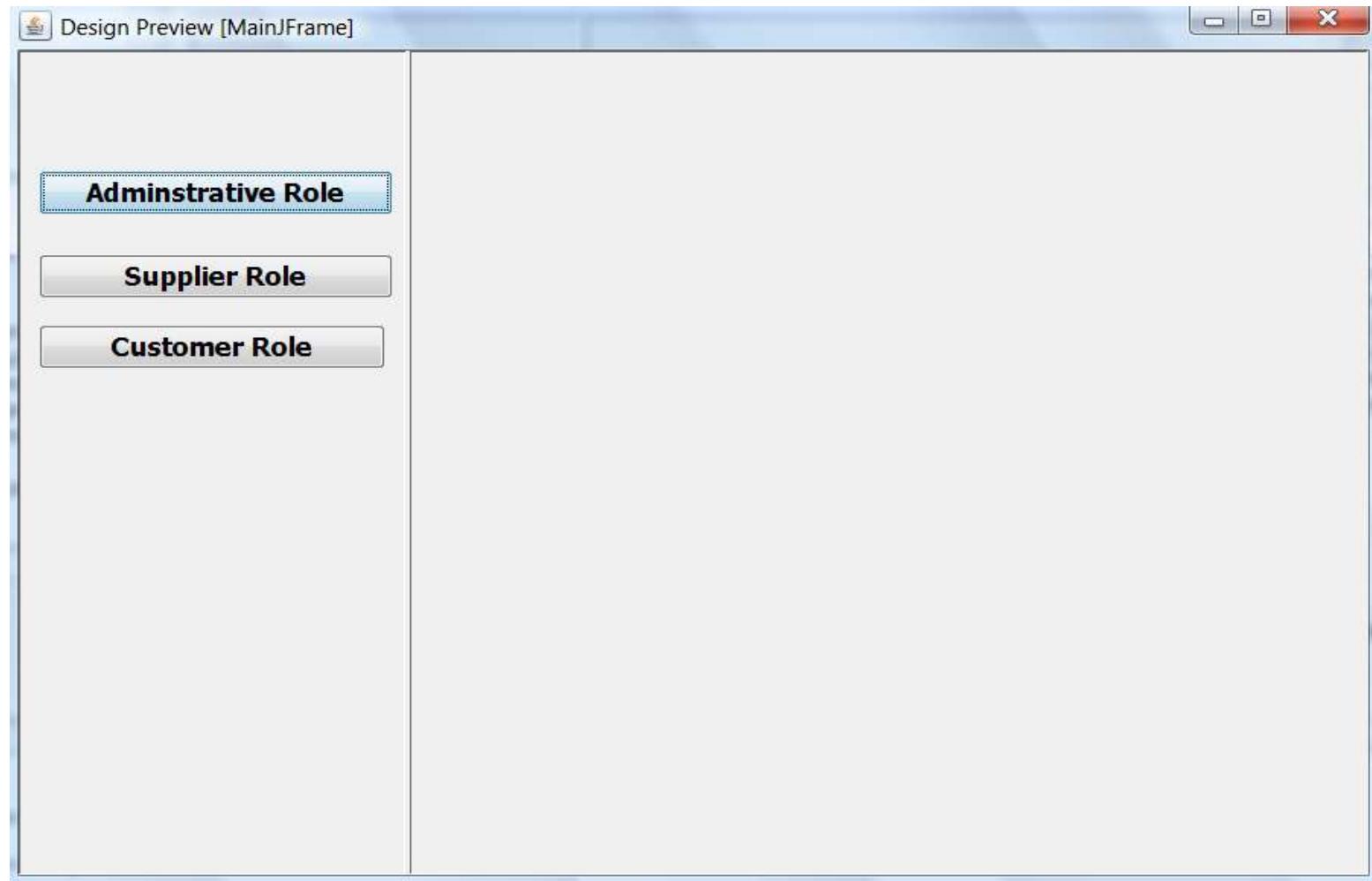
Manage Suppliers Use Case

- 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

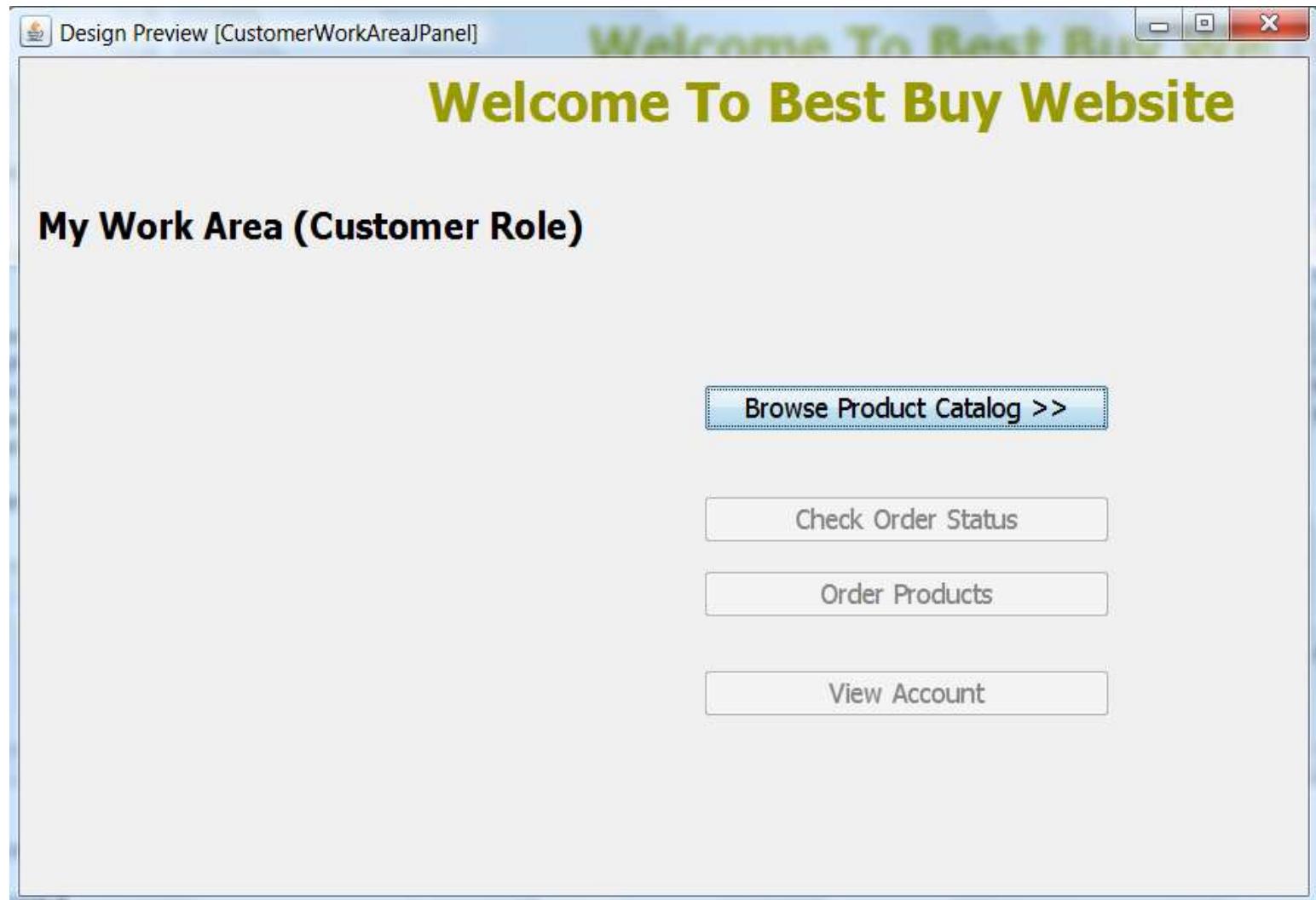
Supplier Use Case

- 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

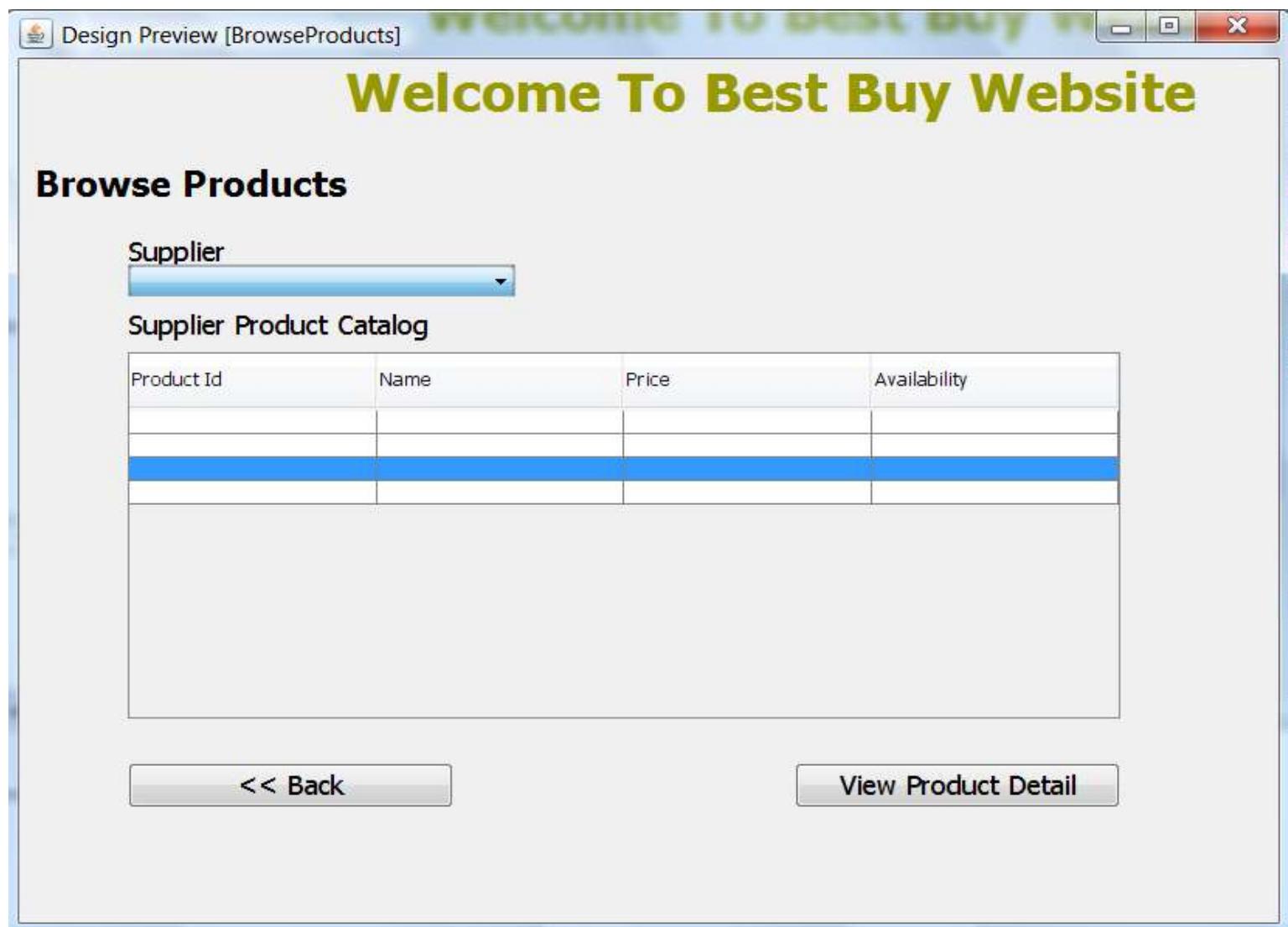
Input: SupplierDirectory



Input: SupplierDirectory



Input: SupplierDirectory



What is the input to this screen?

Design Preview [ViewSupplierProductDetailJPanel]

View Product Detail

Product Name:

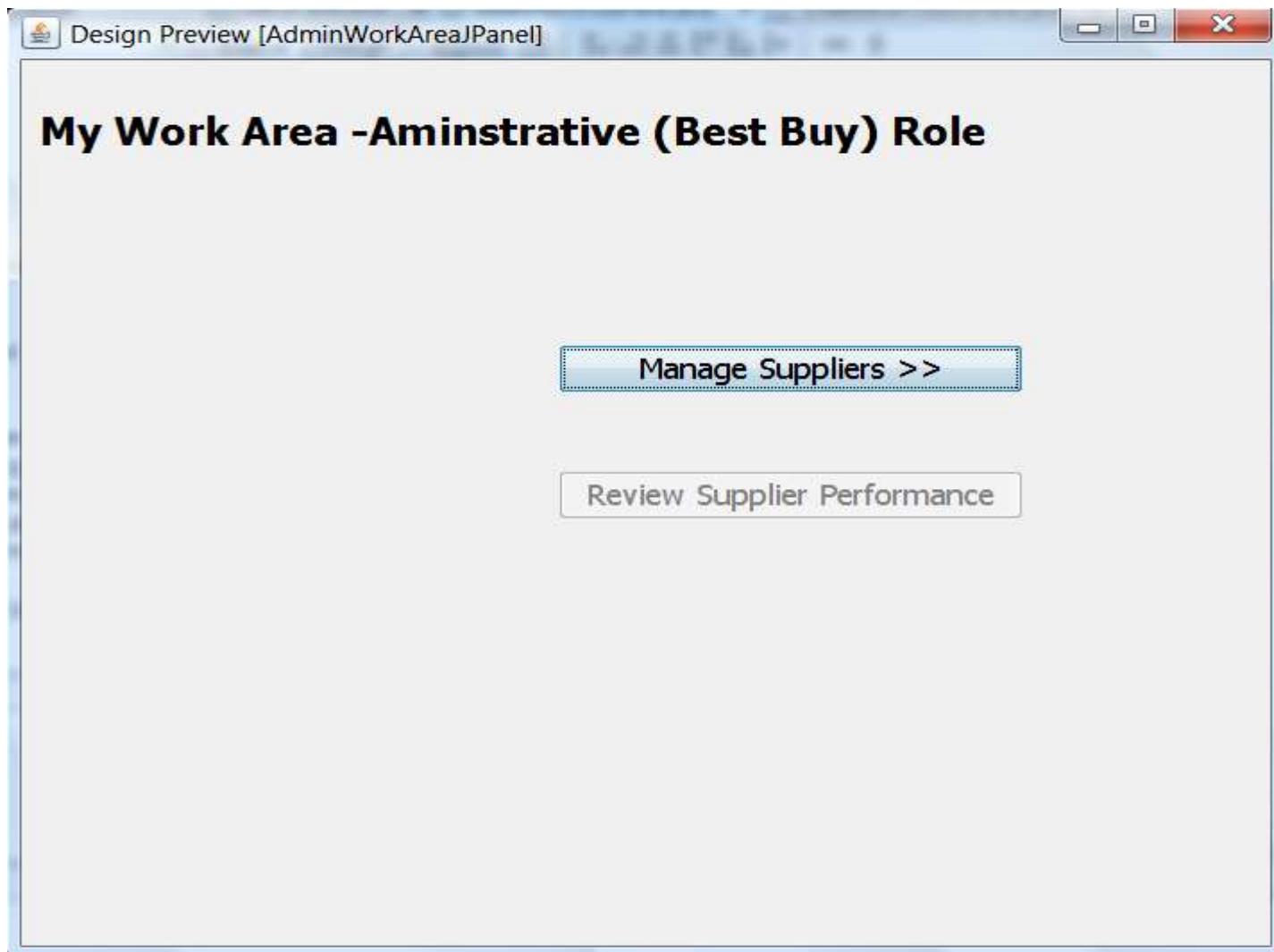
Supplier:

Product Price:

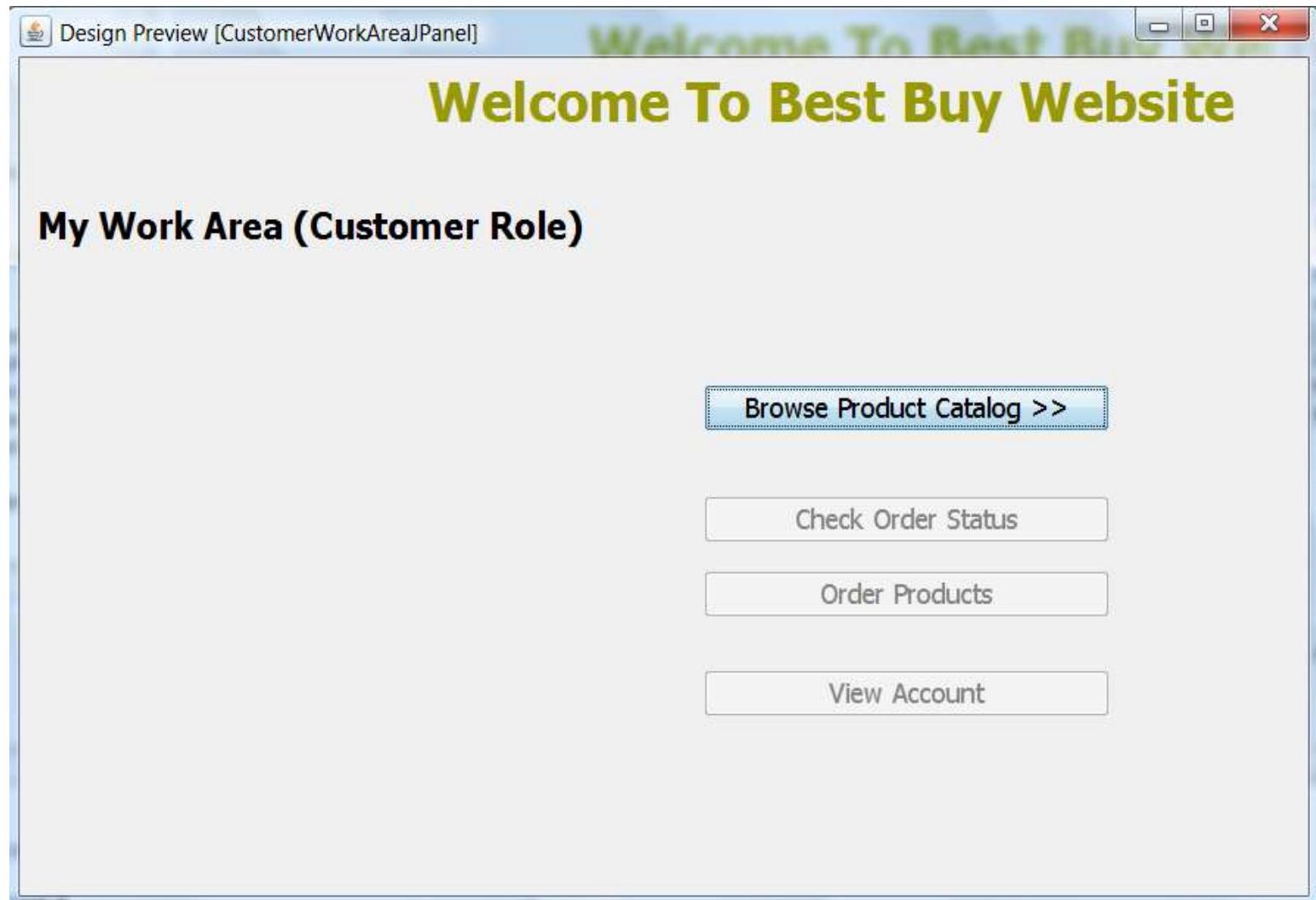
Product Availability:

<< Back

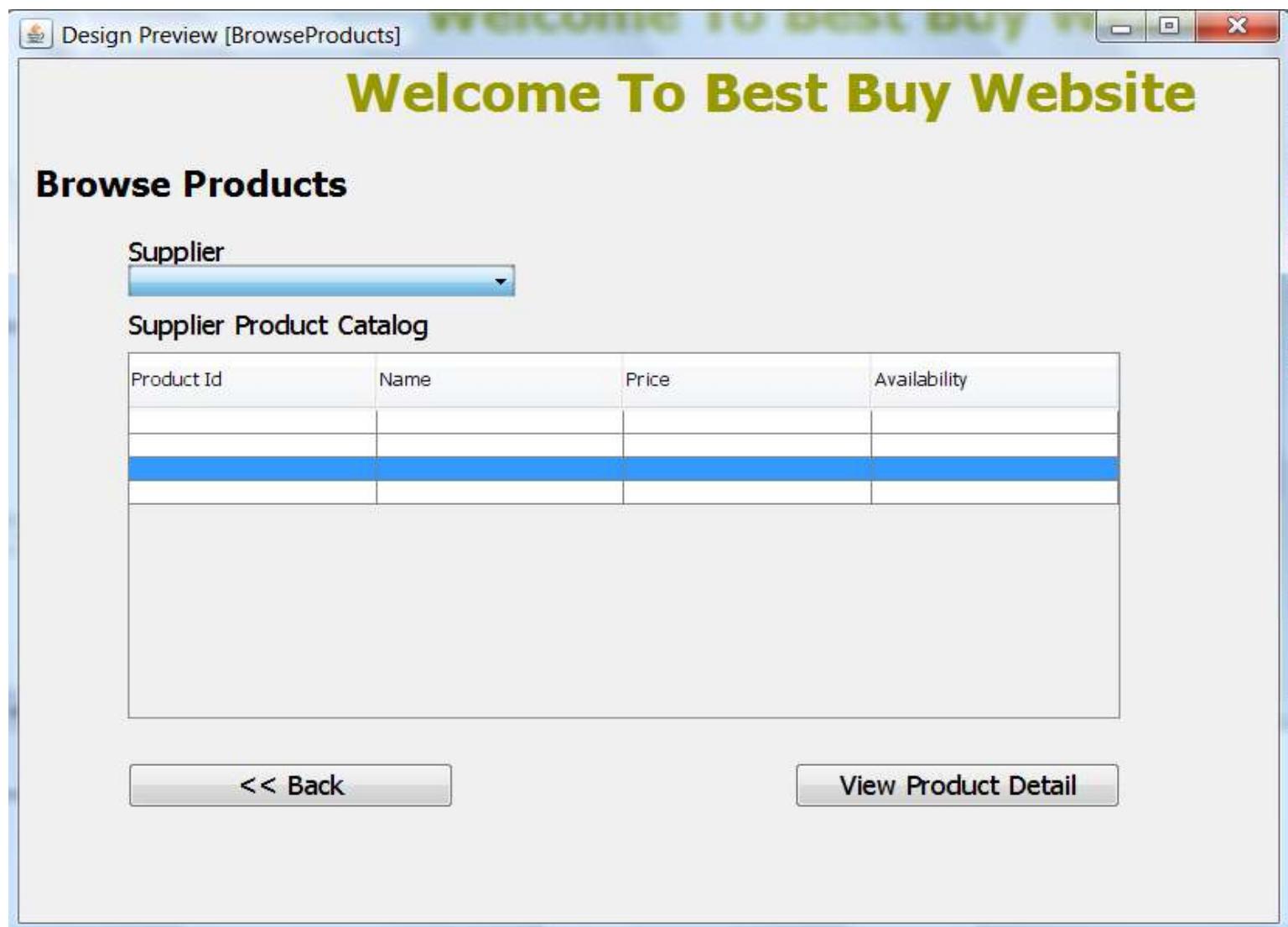
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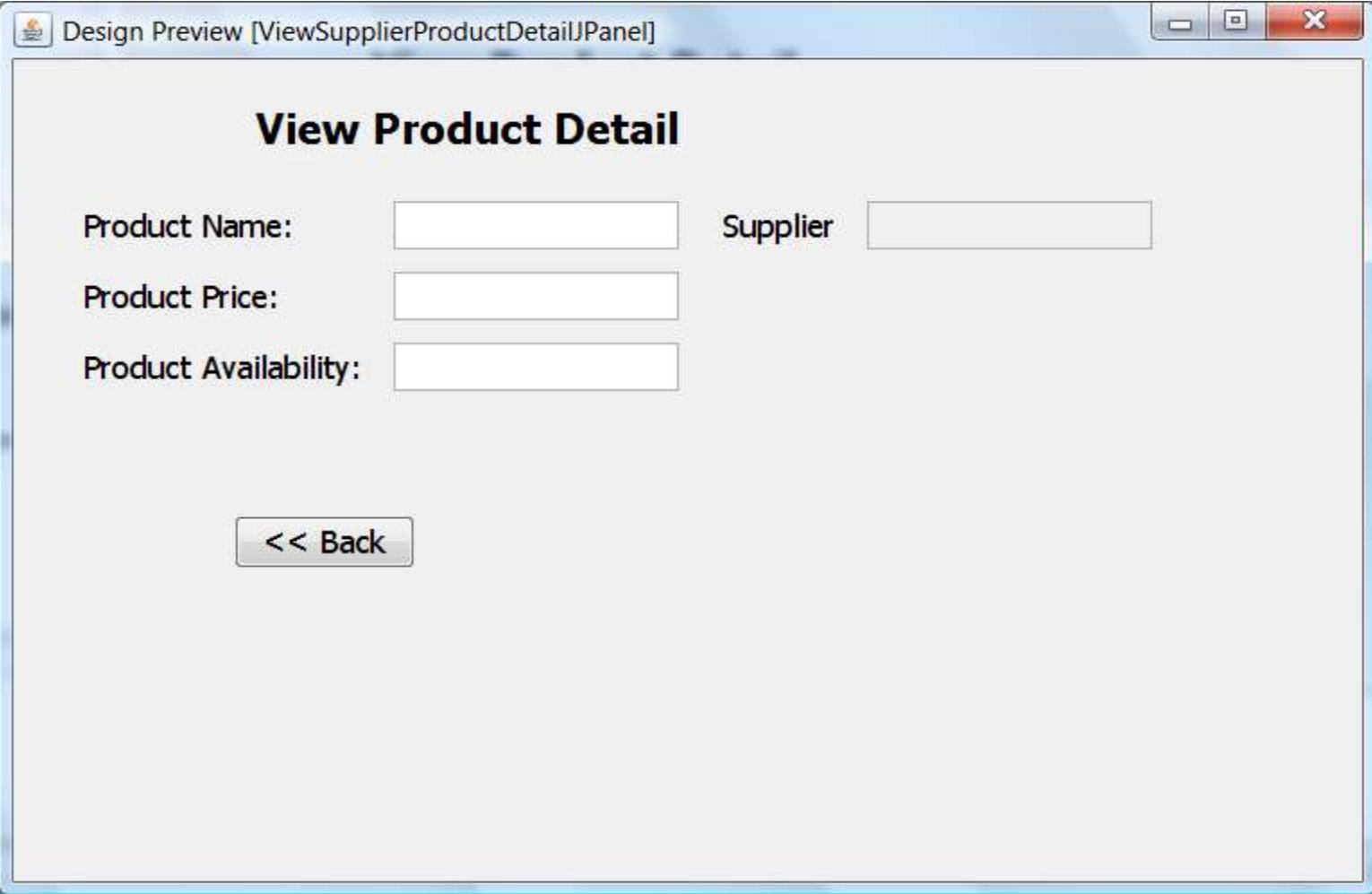
Input: SupplierDirectory



Input: SupplierDirectory



What is the input to this screen?



The image shows a Java Swing application window titled "Design Preview [ViewSupplierProductDetailJPanel]". The window has a standard title bar with minimize, maximize, and close buttons. The main content area is titled "View Product Detail". It contains three text input fields: "Product Name:" followed by an empty field, "Supplier" followed by an empty field, "Product Price:" followed by an empty field, and "Product Availability:" followed by an empty field. At the bottom left is a button labeled "<< Back".

Design Preview [ViewSupplierProductDetailJPanel]

View Product Detail

Product Name:

Supplier:

Product Price:

Product Availability:

<< Back