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BNAI MIS 3504

Digital Design and Innovation Studio

UNDERSTANDING WORK PROCESSES

Day 4

Photo: Installation by Jenny Holzer, US Pavillion, Venice Biennale 1990

Agenda

- **Quiz**
- **Process Overview**
  - **Team Activity**
- **Break**
  - **Individual Activity**
- **Group Project**

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Quiz 30 minutes

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Process

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Review:

What are the Core Requirement Components?

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Stakeholders via interviews

What They Do

People + Process

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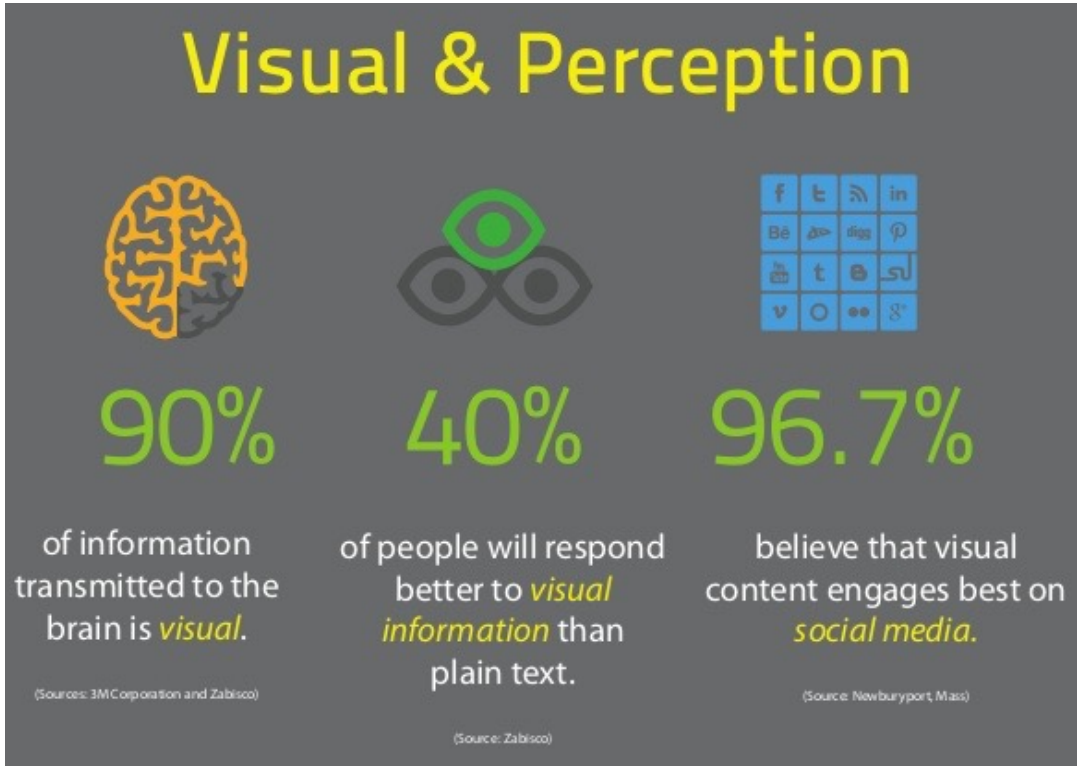
Now… we need to document and understand HOW people do their work

Think VISUALLY

What's a Picture Worth?

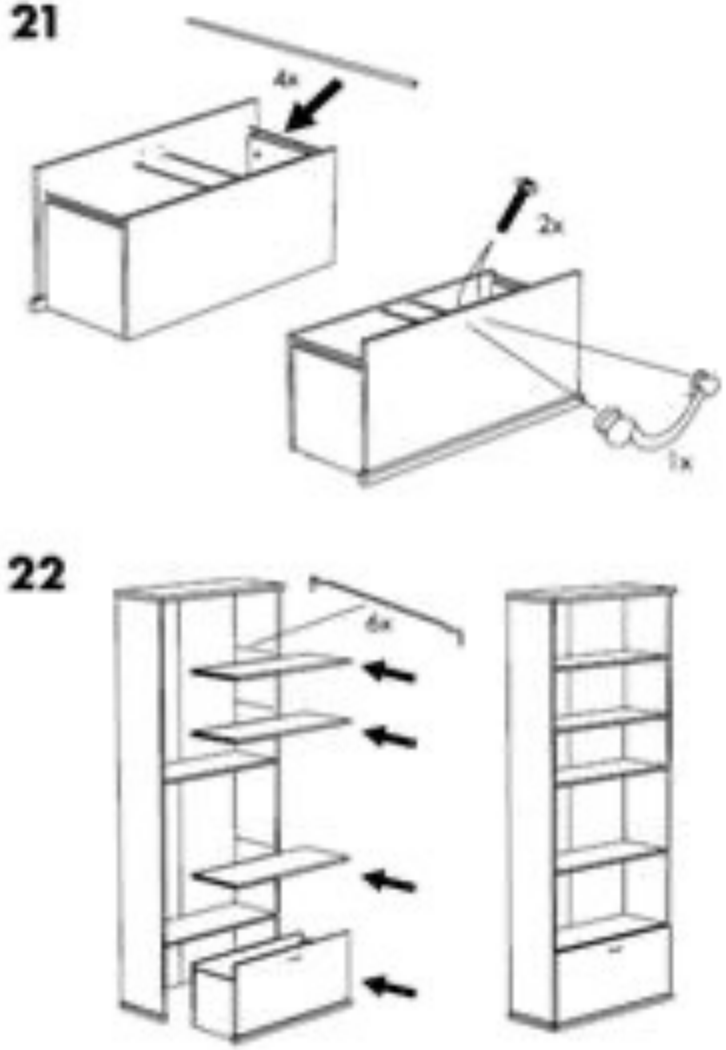
How about a diagram???

- How fast does the brain process images?
- 70% of your sensory receptors are in your eyes
- 50% of your brain is active in visual processing



Source: https://tax.thomsonreuters.com/blog/the-importance-of-visual-content-marketing-infographic/

Source: http://esheninger.blogspot.com/2018/08/a-picture-is-worth-thousand-words.html



assembly process: IKEA

Workflow Diagrams

How would you describe a process you routinely use to a friend who wanted to do the same thing?

Is it easier to use words or draw a picture of the steps you take?

What would some uses of this approach be?

Workflow Diagrams

- One of a Business Analyst's key tools, especially for analyzing the as-is situation
- Great way to begin to understand the process you are dealing with at high level
  - It reveals steps IN a current process
- Different levels of workflow can be used to explain the process to different audiences
- Can document Standard Operating Procedures (SOP's)
- Revising the flow to facilitate **improvements is standard design technique**

Workflow Diagrams

What would we want to include in a workflow diagram?

There are many different types of workflow diagrams, we will focus on one.

- **Swim Lane Flowcharting**
- **ANSI Flowcharting (American National Standards Institute)**
- **UML Activity Diagrams (Unified Modeling Language)**
- **SIPOC (Suppliers, Inputs, Process, Outputs, Customers)**
- **Etc.**

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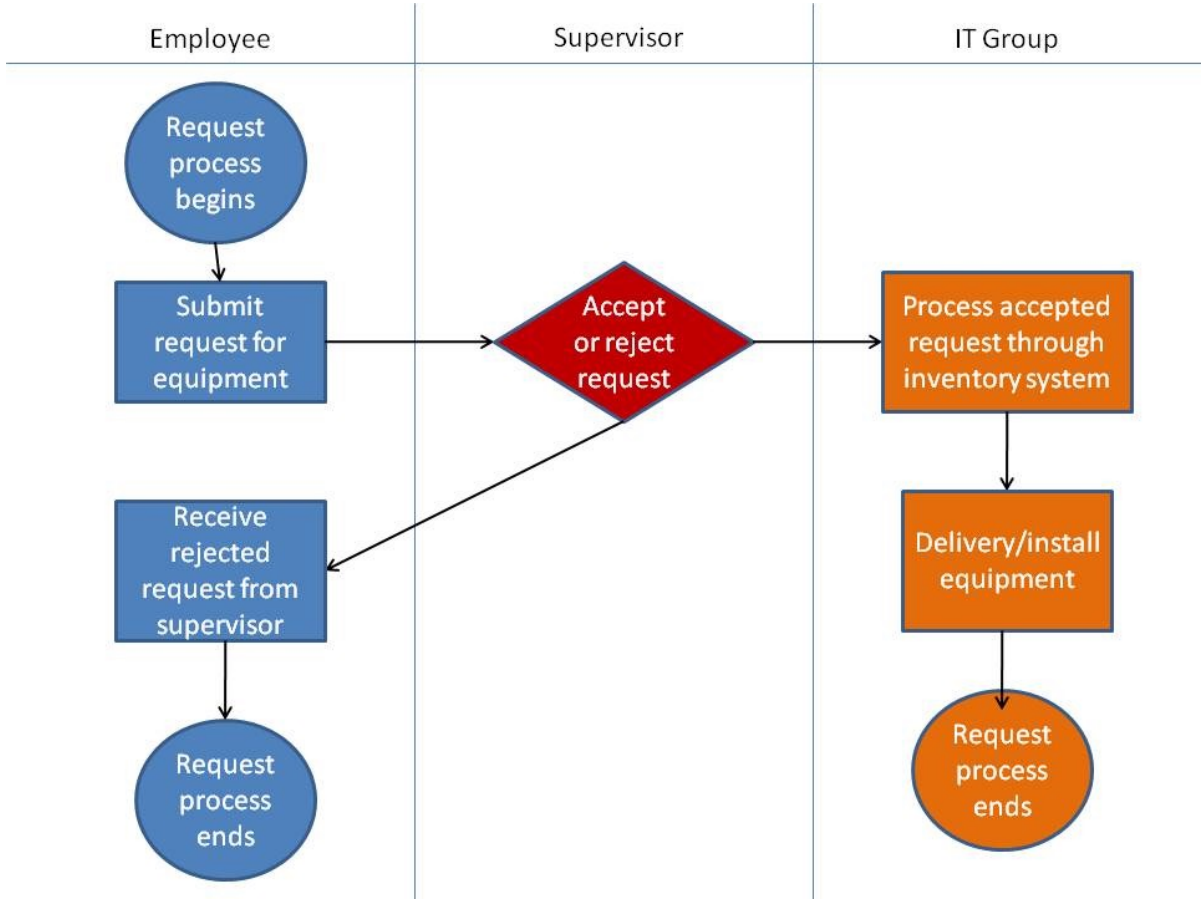
Break 10 minutes

Swim Lane Diagrams

Advantages

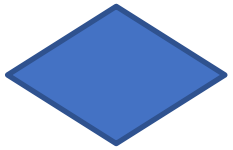
- Identifies who does what & in what order
  - Logical & Chronological
  - Indicates hand-offs
- Versatile
  - Applied to other diagrams
  - Training tool



Swim Lane Diagrams - symbols

- A circle signifies the starting and ending of an event in the process

- A rectangle represents an activity in the process.

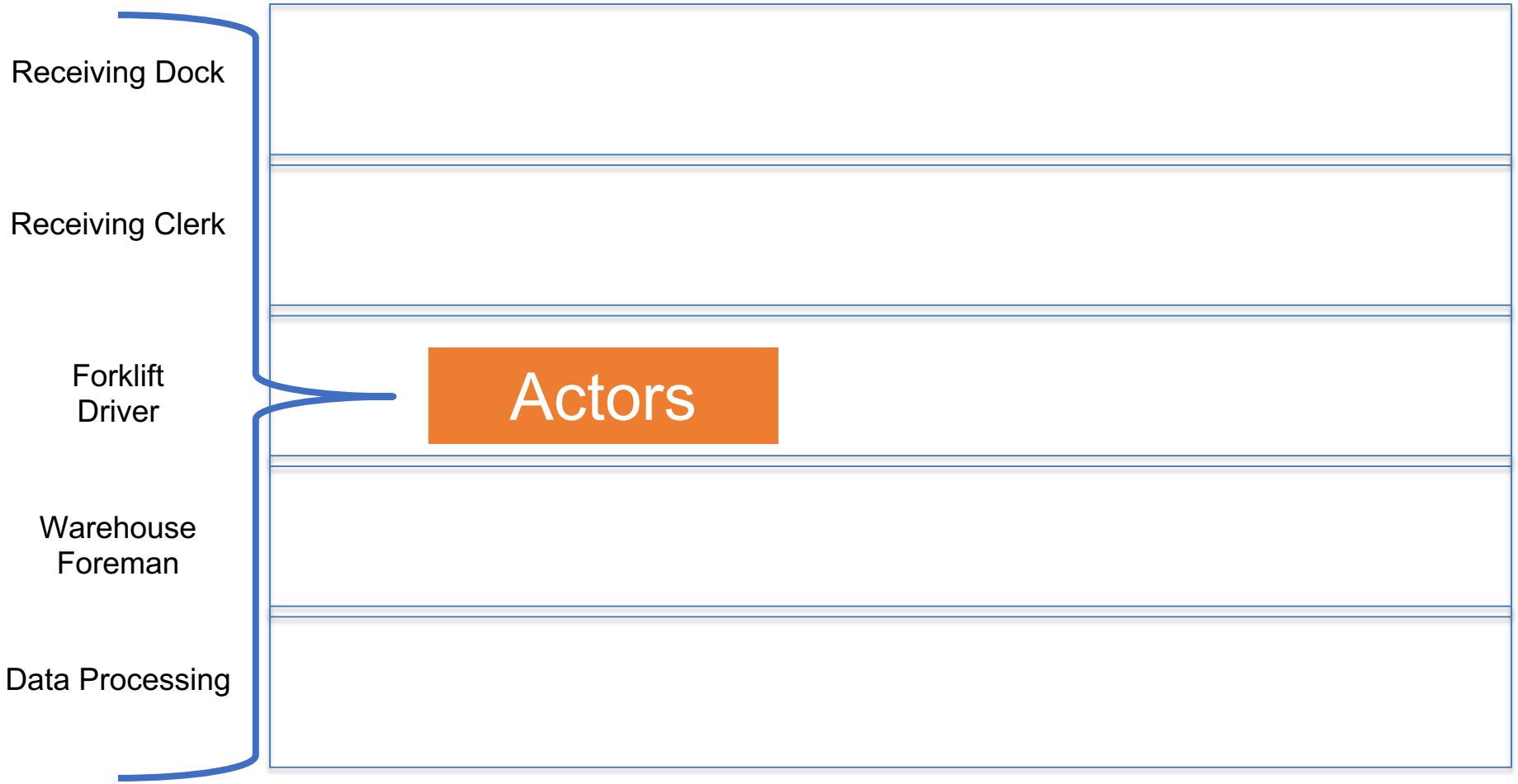


- A diamond represents a decision that must be made.

- Arrows indicate the flow of the process.

- A cylinder represents stored data.

Swim Lane Process Mapping



Swim Lane Diagrams – Order to Cash (O2C)

The process starts when the customer contacts Sales to place an order. The person in Sales creates the sales order. As part of doing this, the person in sales first checks to see if the customer has enough available credit to cover the order. They do this by looking up the customer's credit on a report that is generated by Accounting and sent to Sales every Monday morning. If the customer doesn't have enough available credit then the person in sales notifies the customer who can then either update or cancel their order. Next the person in sales checks to see if the items being ordered are in stock. They do this by checking a report on inventory that the Warehouse created at the end of each day. If the items being ordered are not in stock then the person in Sales notifies the customer who can then update or cancel their order. If the report indicates the items are in stock then the order goes to the Warehouse where the workers there will pick the order. Since Sales is looking at a report that is only updated at the end of each day, there is a chance that they accepted an order for an item that is not really in stock. If that is the case the Warehouse notifies Sales who then notifies the customer who can update or cancel their order…

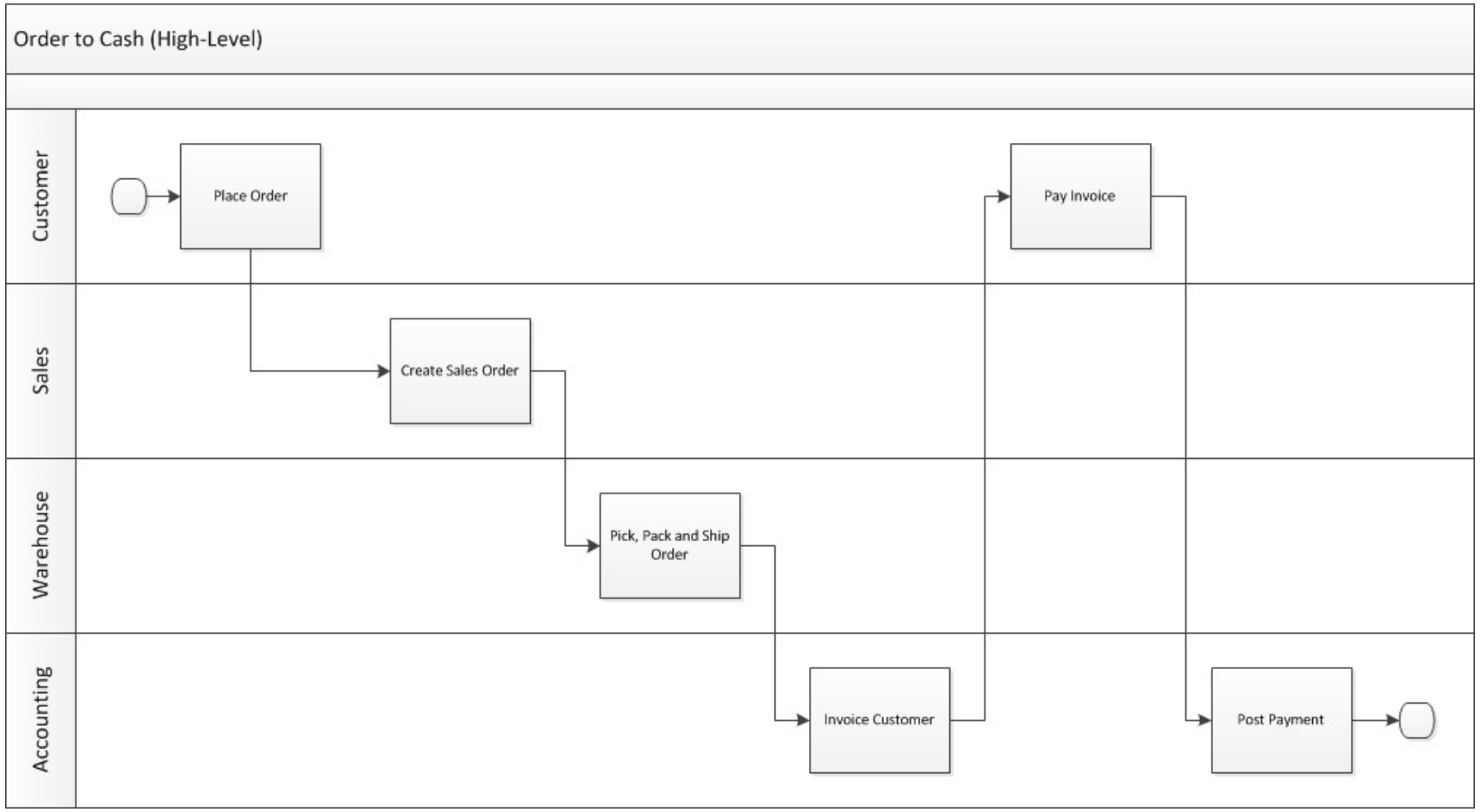
Swim Lane Diagrams – Order to Cash (O2C)

…Once the people in the warehouse pick the order, the people in Accounting have to make sure that the customer actually has enough credit to cover the order. Since the people in Sales use a credit report that is generated on Monday morning, there is a chance that the information on the credit report is old. If the customer doesn't have enough available credit then Accounting notifies Sales who then notifies the customer who can then choose to update or cancel their order. If the customer has enough available credit then their available credit is reduced by the total cost of the order and the warehouse is notified and they pack and ship the order. As soon as the order is shipped the people in the warehouse notify accounting and accounting generates and sends the invoice to the customer. When the customer pays the invoice the people in Accounting increase the customer's available credit by the amount of the payment, they post the payment and we're done.

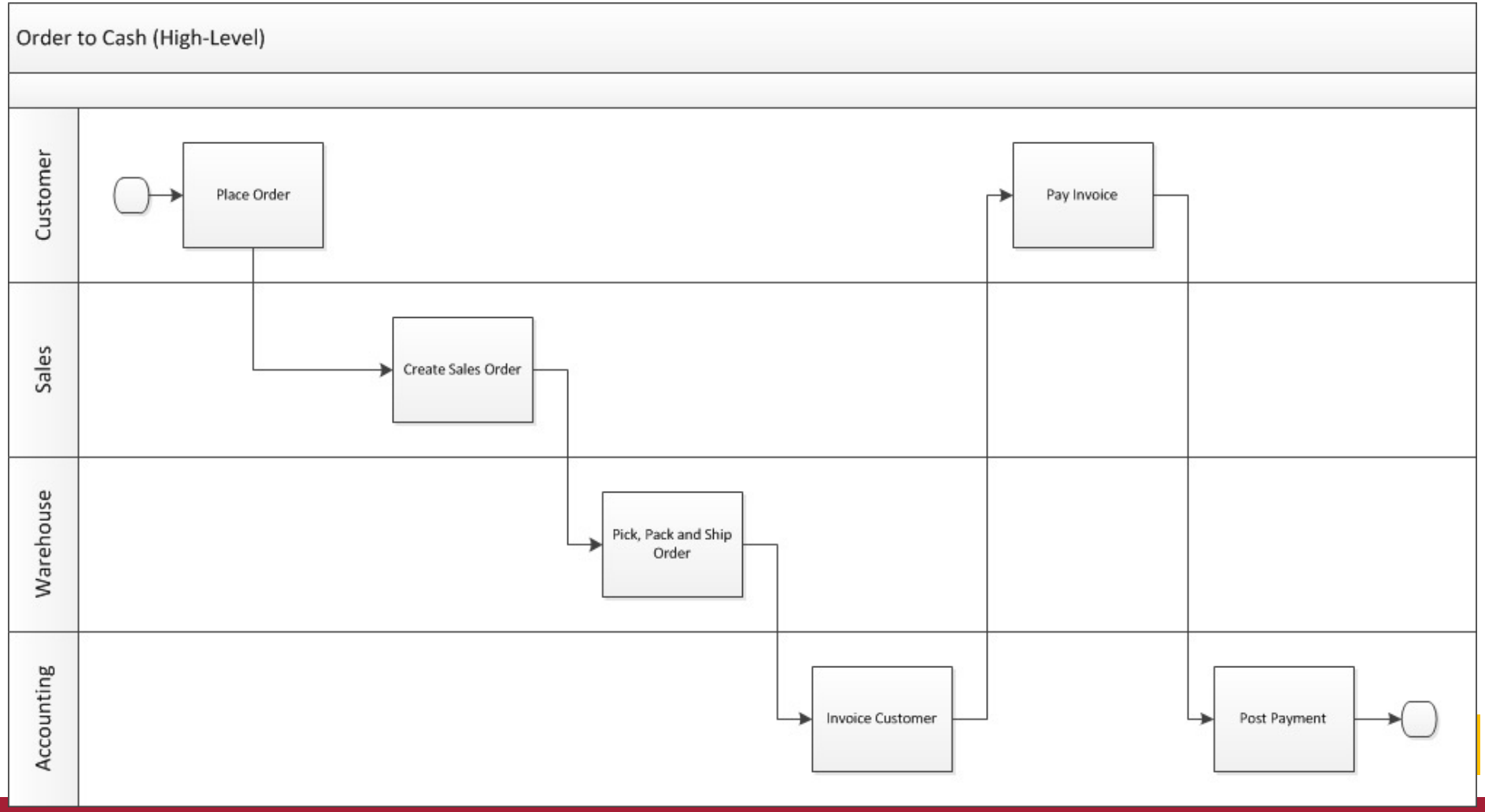
Swim Lane Diagrams – Order to Cash (O2C)

Who does What & When

- Overview example



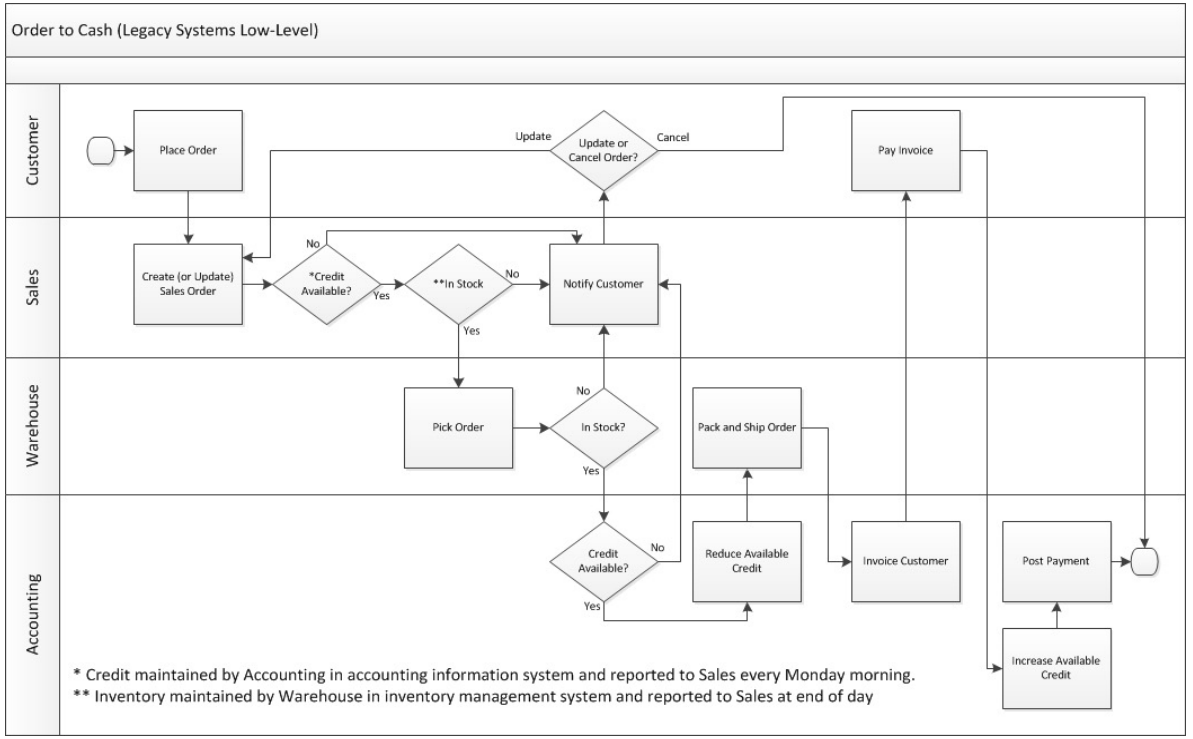
Swim Lane Diagrams – Order to Cash (O2C)



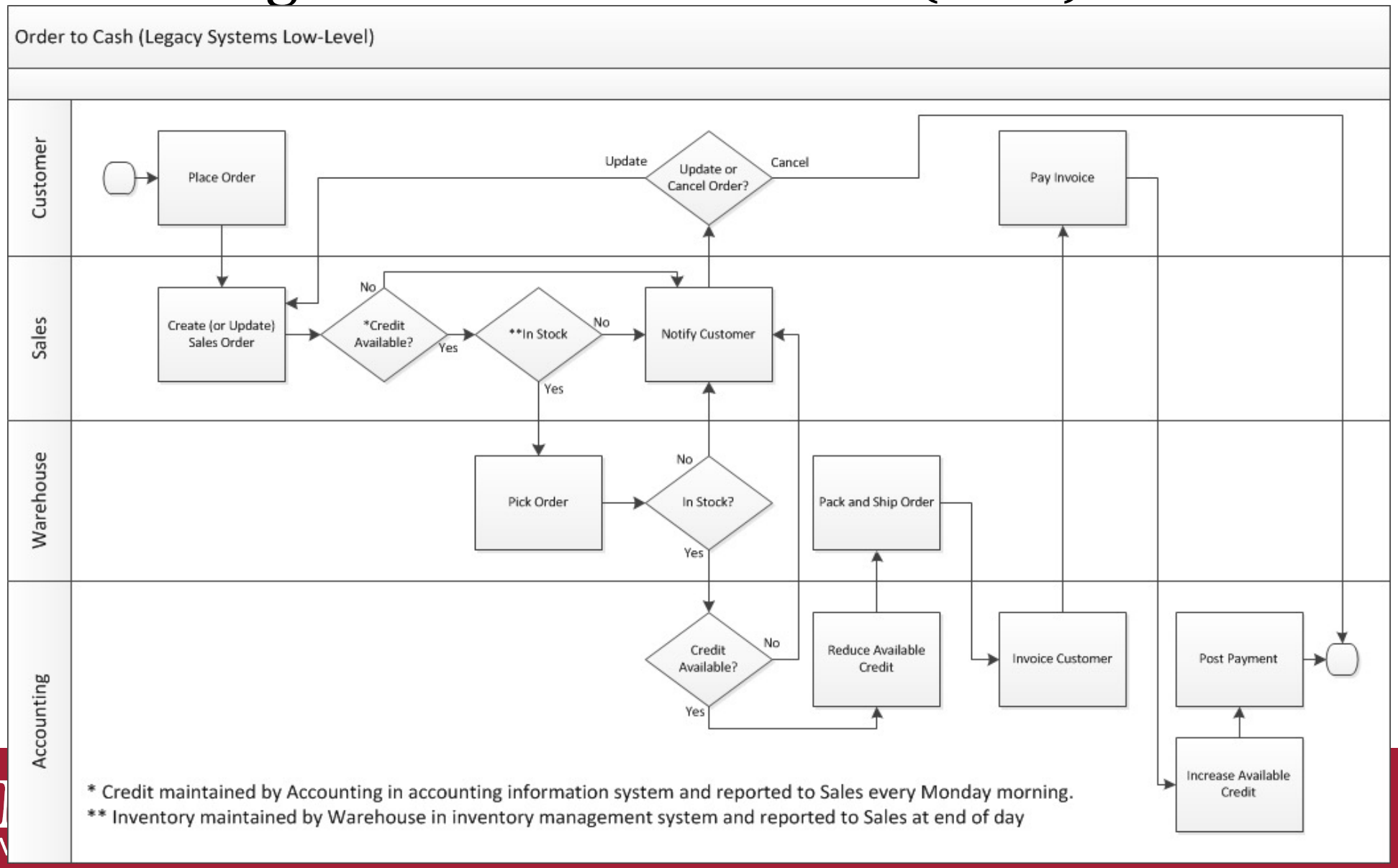
Swim Lane Diagrams – Order to Cash (O2C)

Who does What & When

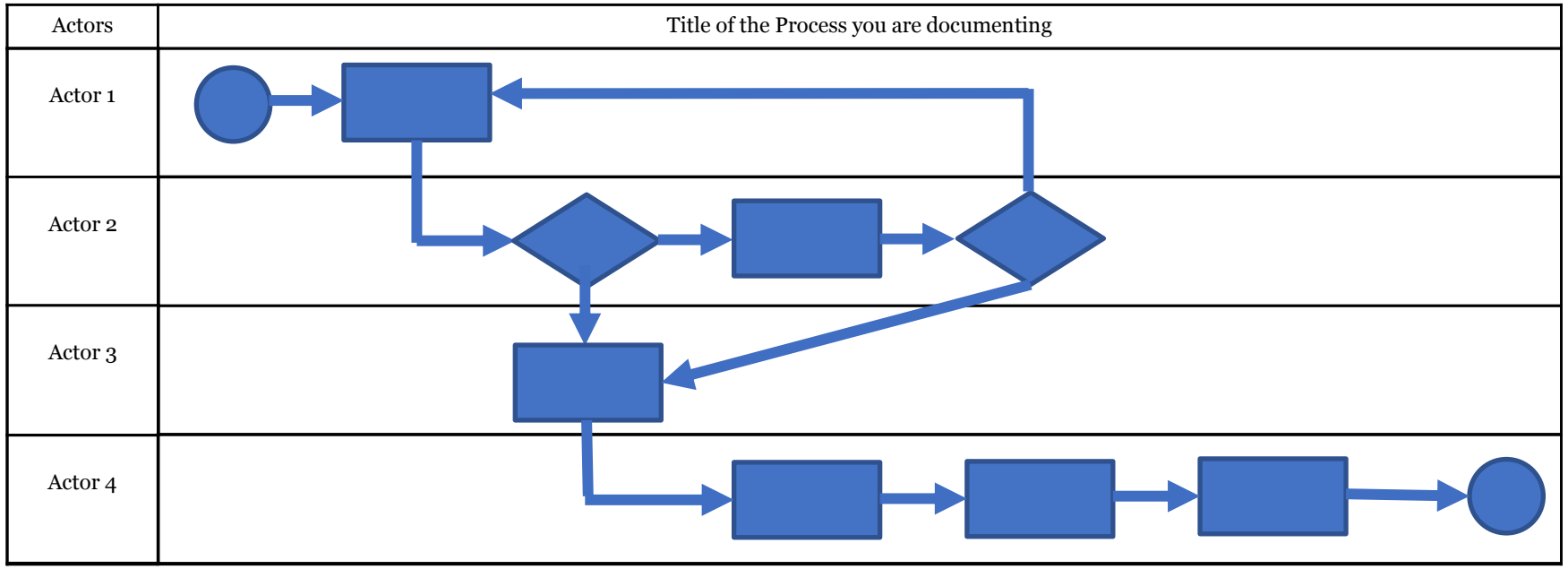
- Complexity added
- Legacy system



Swim Lane Diagrams – Order to Cash (O2C)



Swim Lane Diagrams – Create your own



Team Exercise: Swim Lane Workflow

With your teammates:

- Take 30 minutes to imagine the steps a warehouse goes through when it receives material from its suppliers
- Sketch it out if you can
- Be ready to share your ideas

BREAK for 15 minutes

Swim Lane Process Mapping

1. **Name the process - subject+verb+object**

2. **What's the business event that initiates the process?**

3. **What's the outcome of the process?**

Swim Lane Process Mapping

1. **Name the process - subject+verb+object**

Warehouse Receives Materials

2. **What's the business event that initiates the process?**

Receive Materials

1. **What's the outcome of the process?**

Materials are Stored

Swim Lane Process Mapping

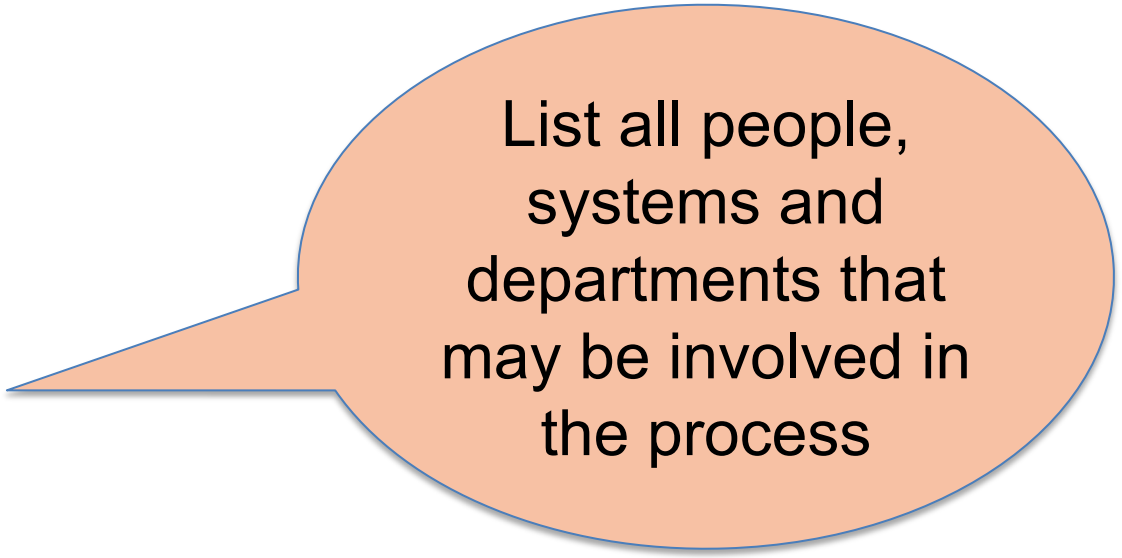
Receiving Dock

Receiving Clerk

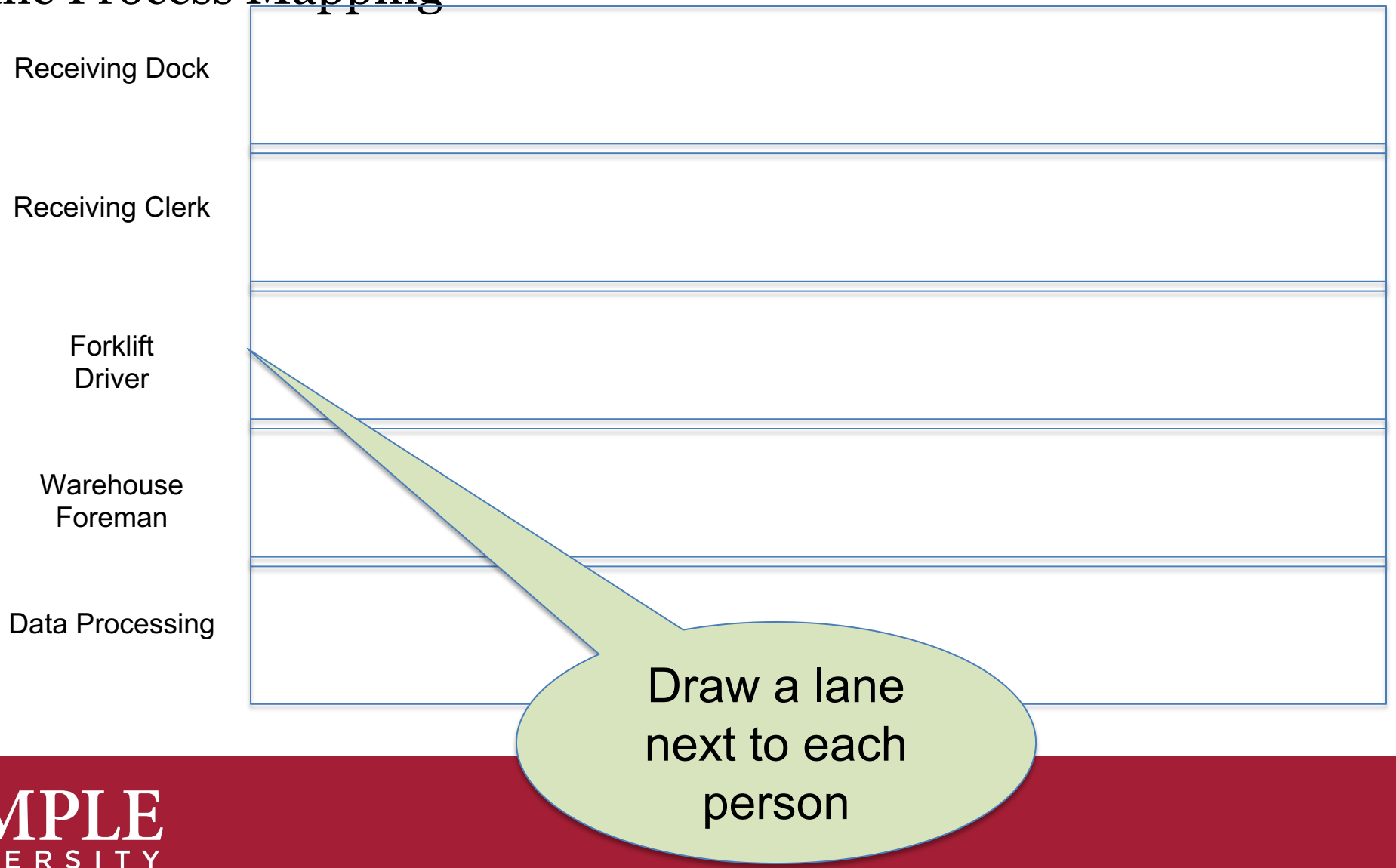
Forklift Driver

Warehouse Foreman

Data Processing



Swim Lane Process Mapping



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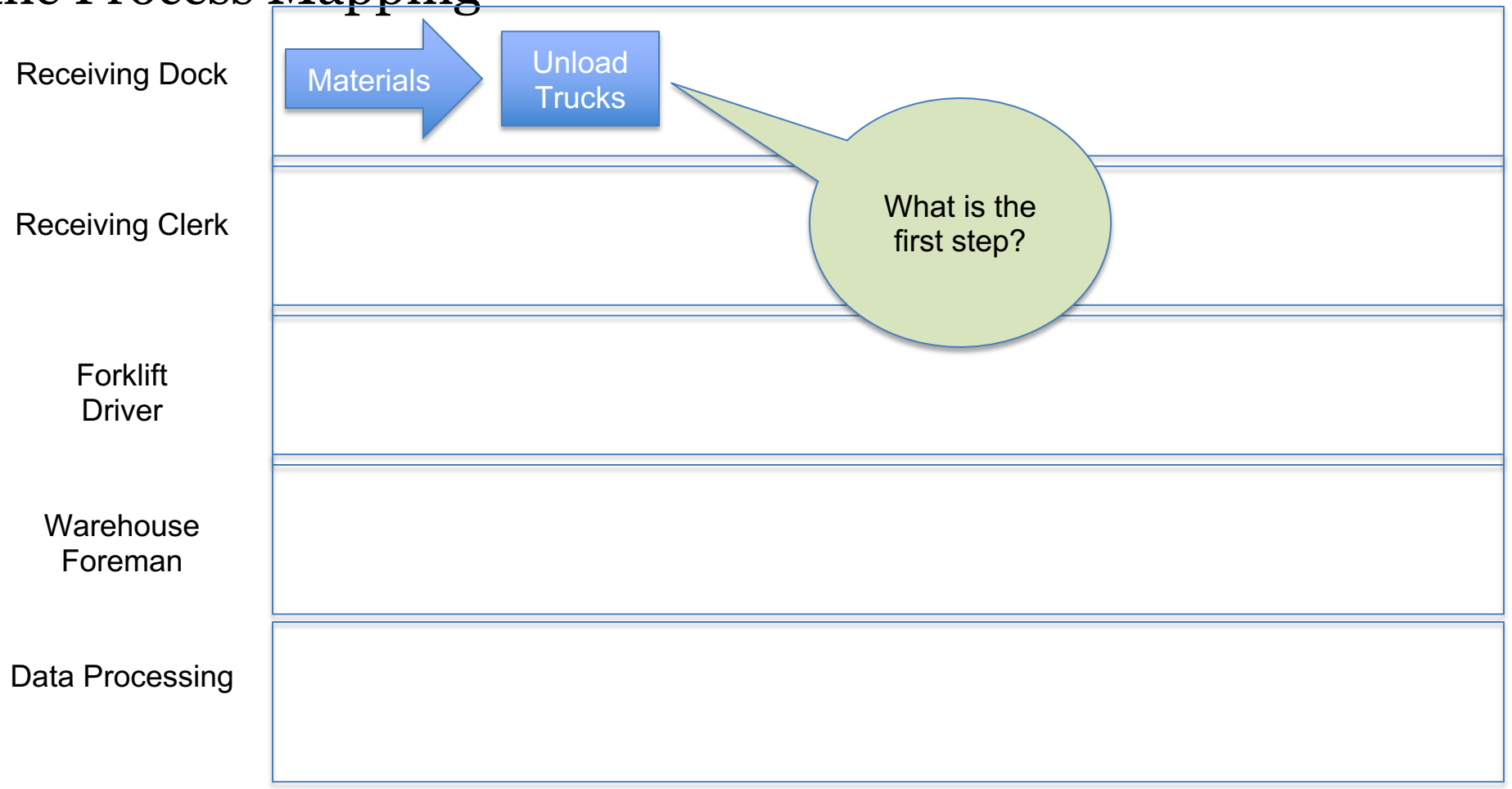

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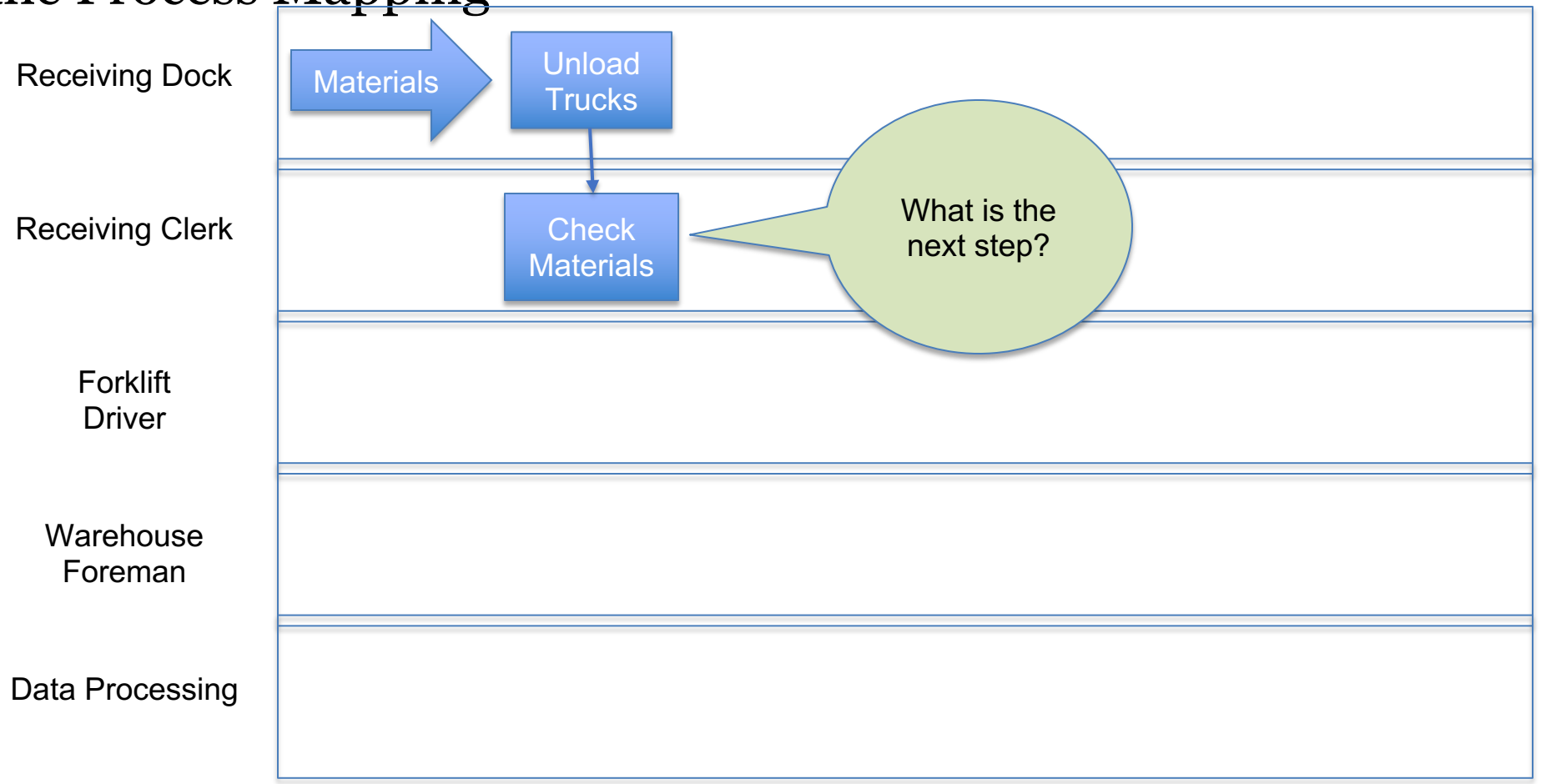

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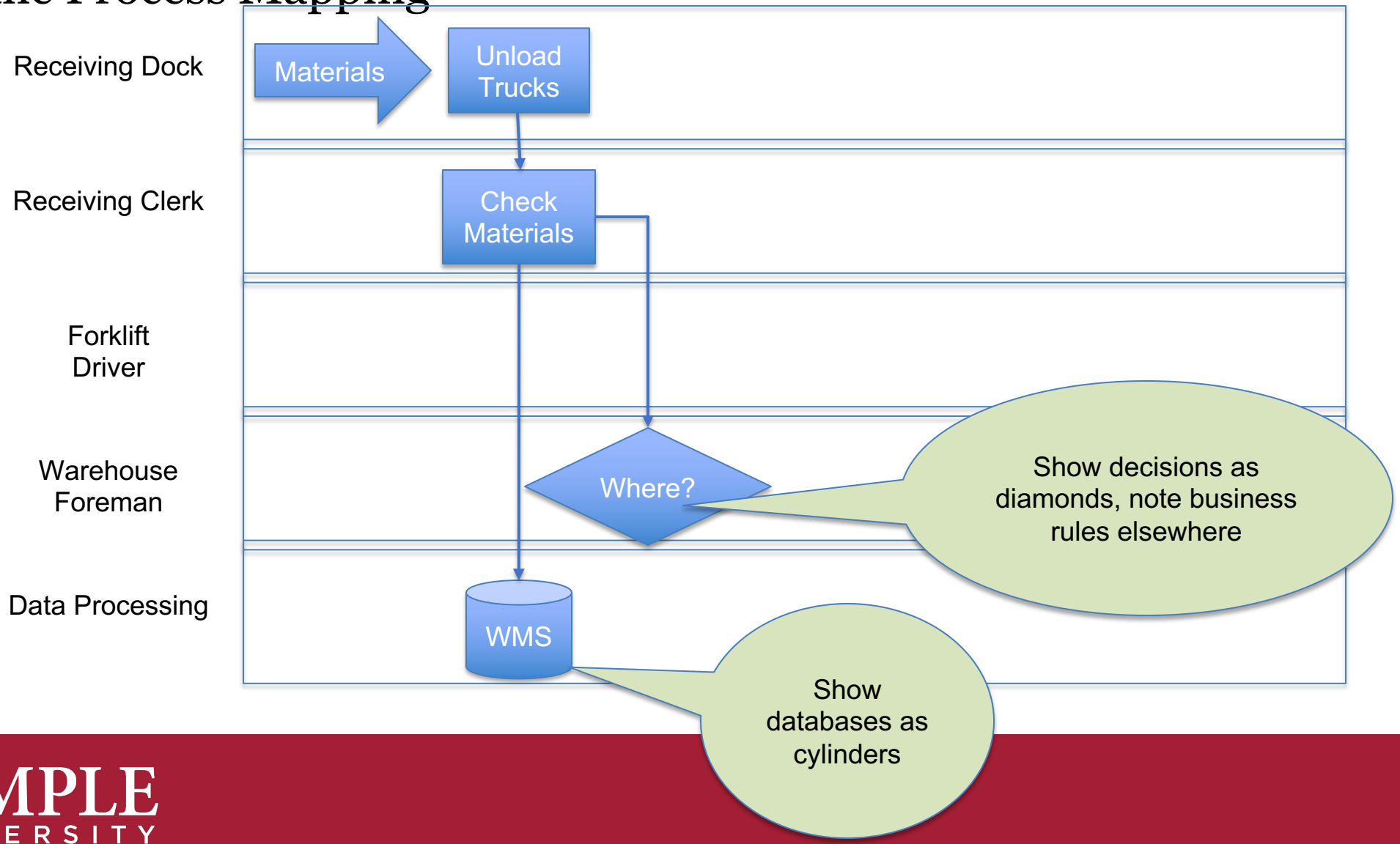

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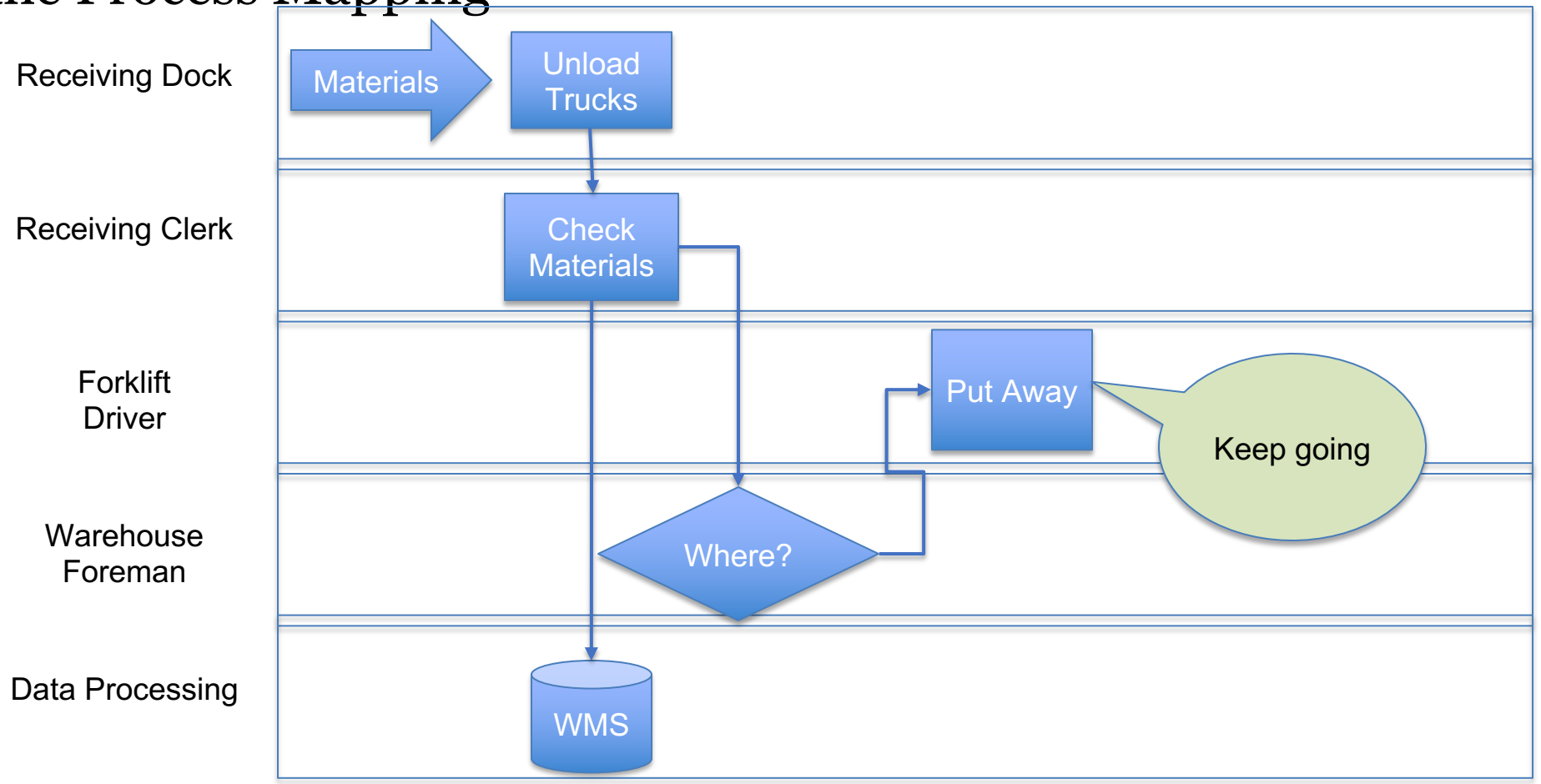

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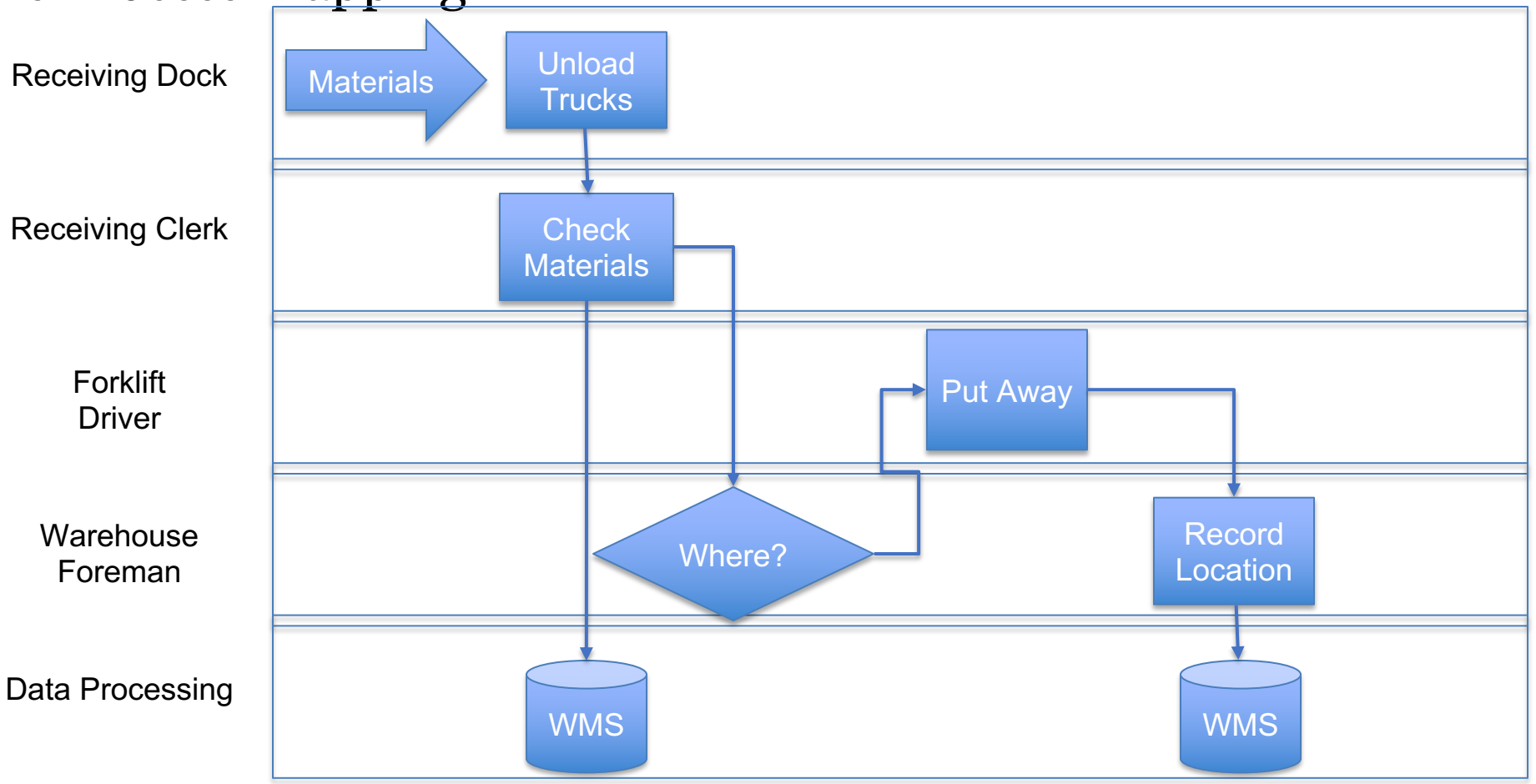

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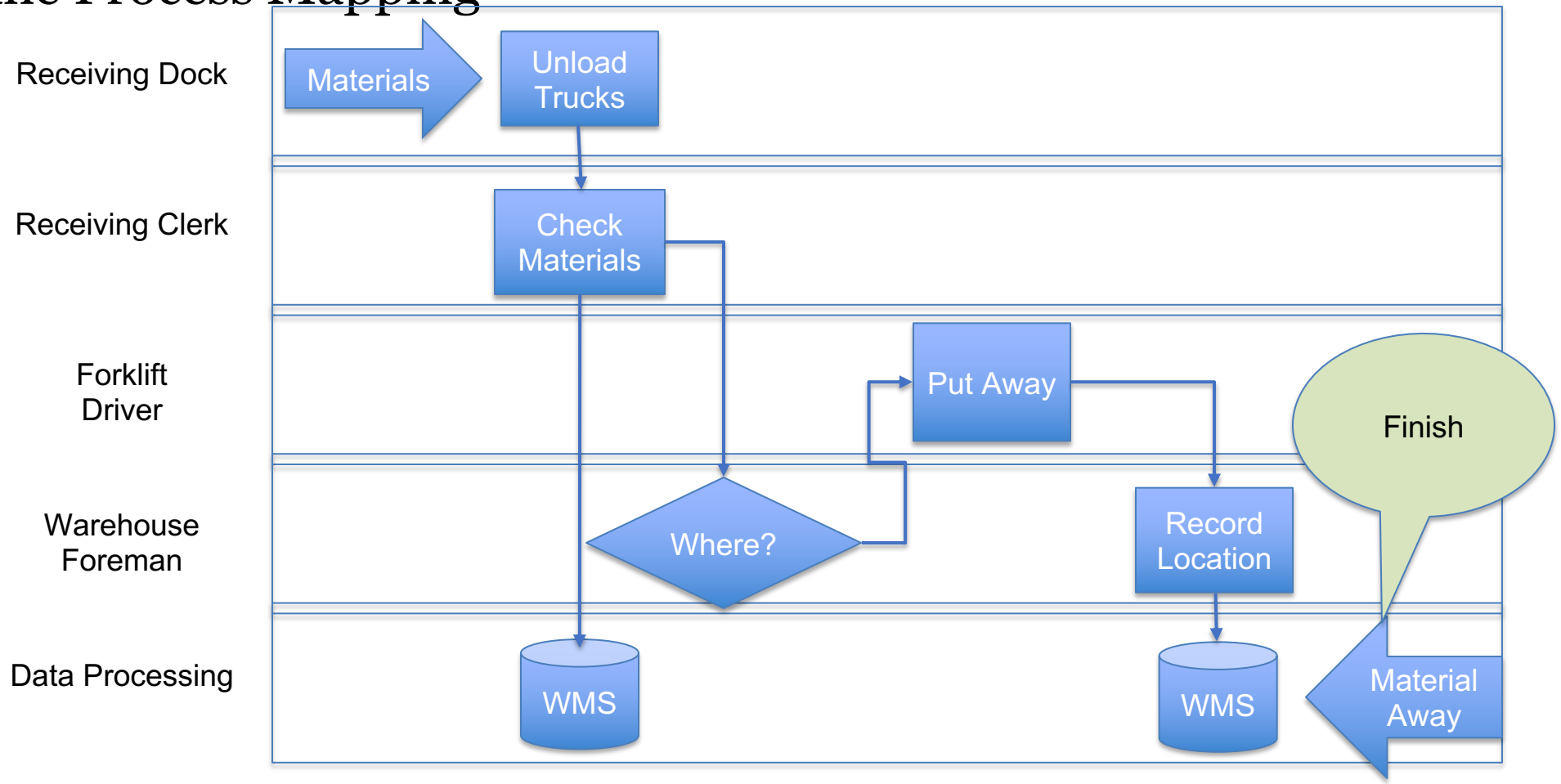

Team Exercise: Fly By Night Process Case

Instructions:

1. *Read through the case.*
2. *Work with your team.*
3. *Identify the actors – Who are all of the people/departments/systems involved?*
   - *Share with the class*
4. *Actions – What are the steps they perform in the process?*
   - *Share with the class*
5. *Sequence – Map the process in sequence using the swim lane method.*
   - *Share with the class*

30 minutes

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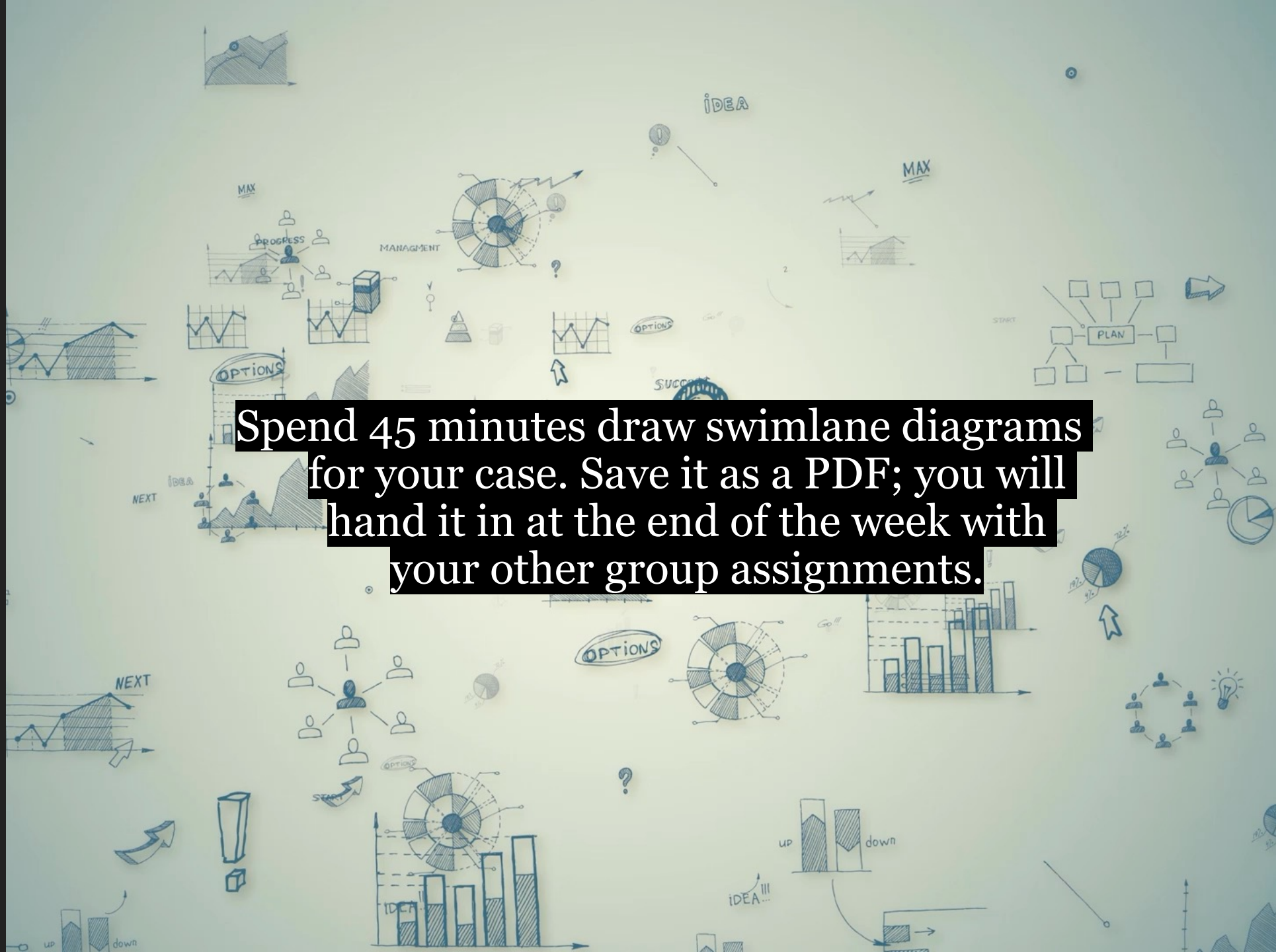
Group Project: Day 4

Swimlane Diagrams


Spend 45 minutes draw swimlane diagrams for your case. Save it as a PDF; you will hand it in at the end of the week with your other group assignments.

Reminder: Quiz tomorrow!

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Thank you!

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