

Visual Modeling Concepts

What is Visual Modeling?

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Graphical representation using a modeling language that takes something complex and makes it easier to understand.

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Graphical representation using a modeling language that **takes something complex and makes it easier to understand.**

Benefits of Visual Modeling

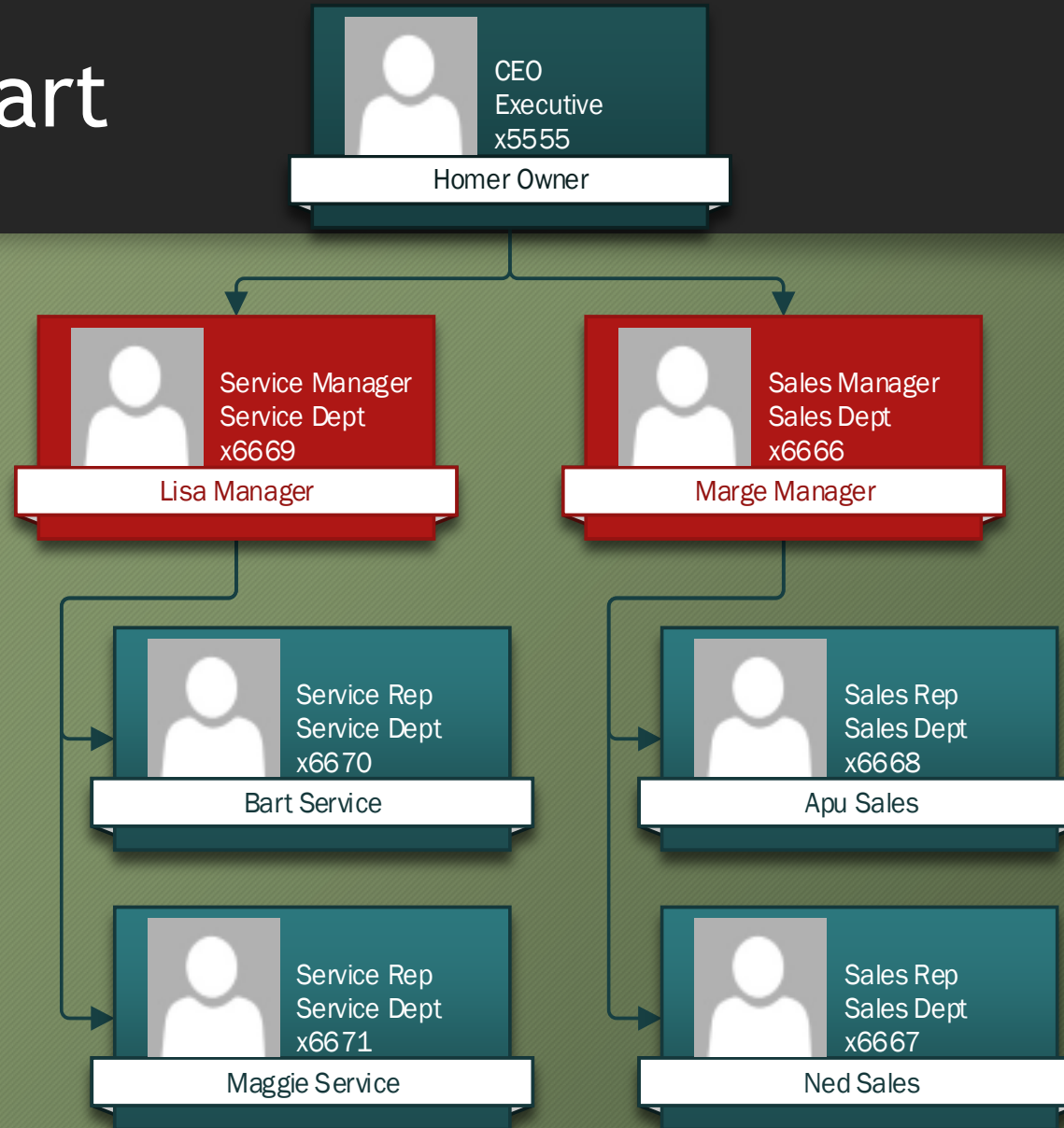
- Easily understand complex information
- Gets all stakeholders involved
- Receive requirements efficiently
- Identify the underlying problem
- Analyze 'what if' scenarios
- Allows remove of irrelevant information

What Gets Modeled?





- Current state, “as-is”
- Future state, “to-be”
- Requirements fill the gap





Business Models

Organizational Chart

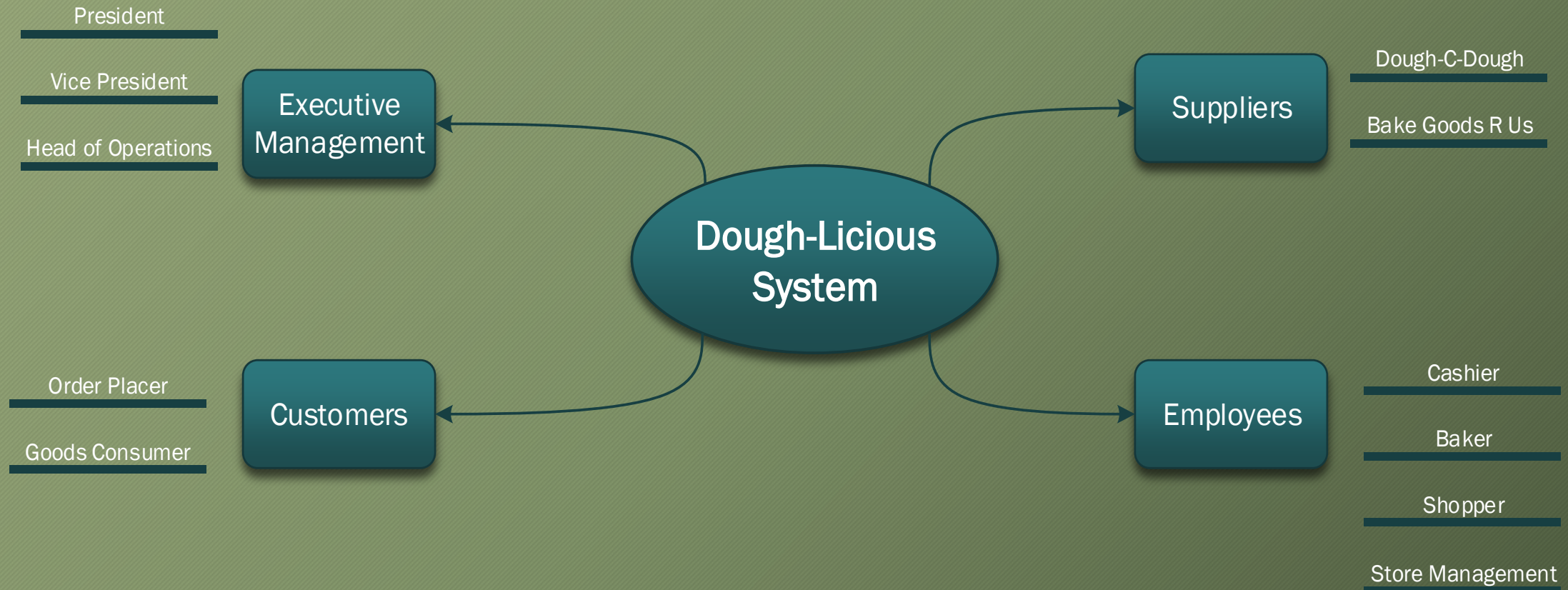


Competitive Comparison Matrix

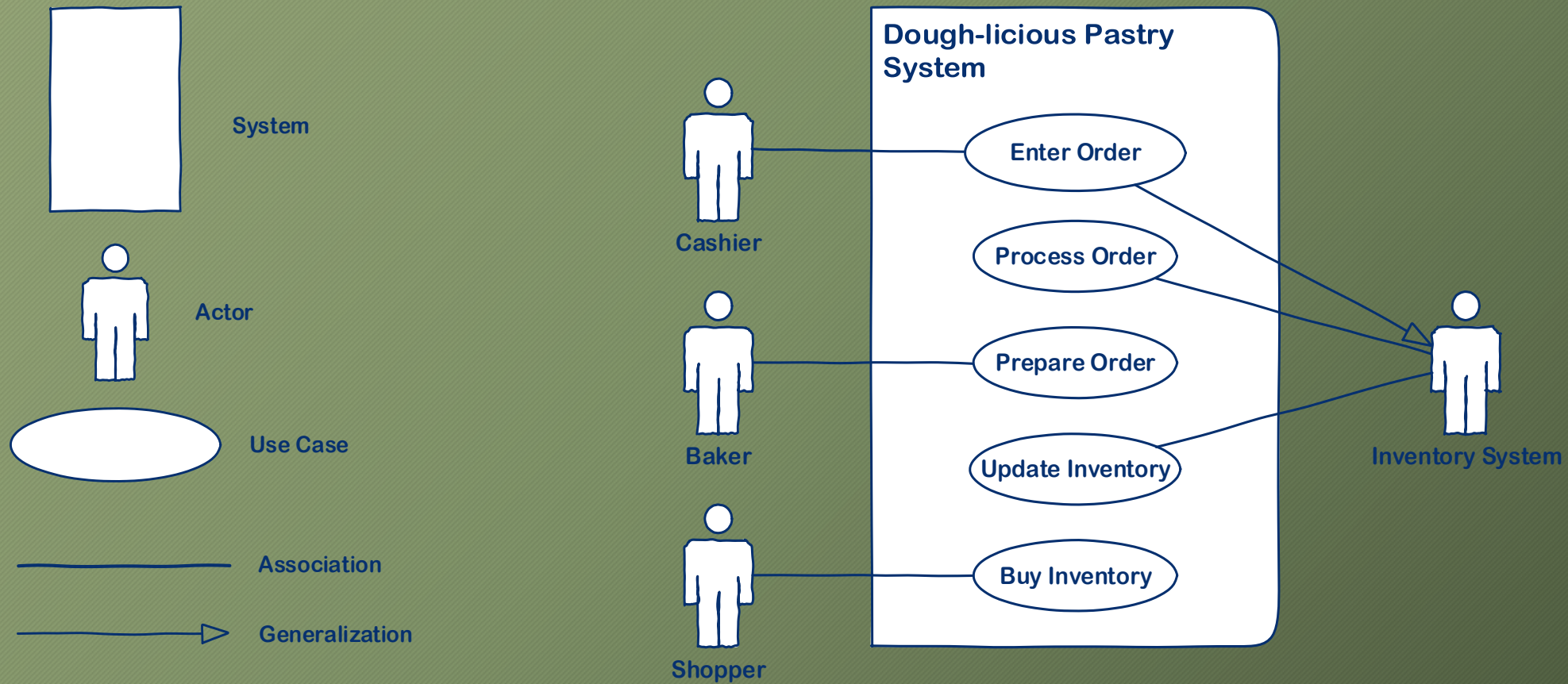
				
Price	\$19.95/mo	\$24.95/mo	\$25.50/mo	\$29.99/mo
Administrative Controls	✓	✗	✓	✓
Quick Install	✓	✓	✓	✓
Training Included	✗	✓	✓	✓
Unique Features	✗	✓	✗	✓

				
Price	\$19.95/mo	\$24.95/mo	\$25.50/mo	\$29.99/mo
Ease of Use	3	1	4	4
Time to Install	4	5	4	4
Quality of Training	0	4	3	5
Additional Features	0	3	1	4

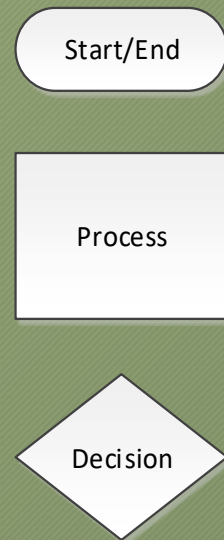
Stakeholder Map



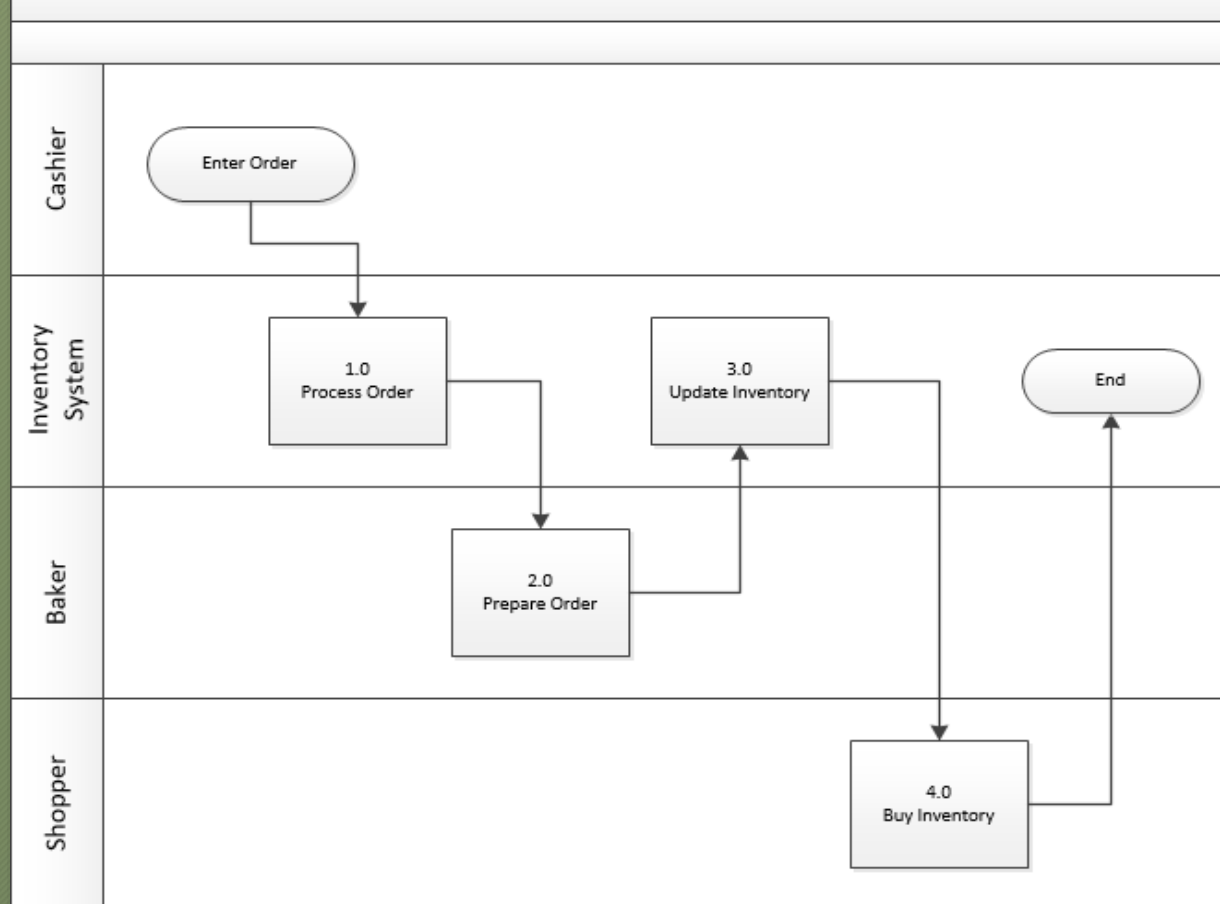
Use Case Diagram



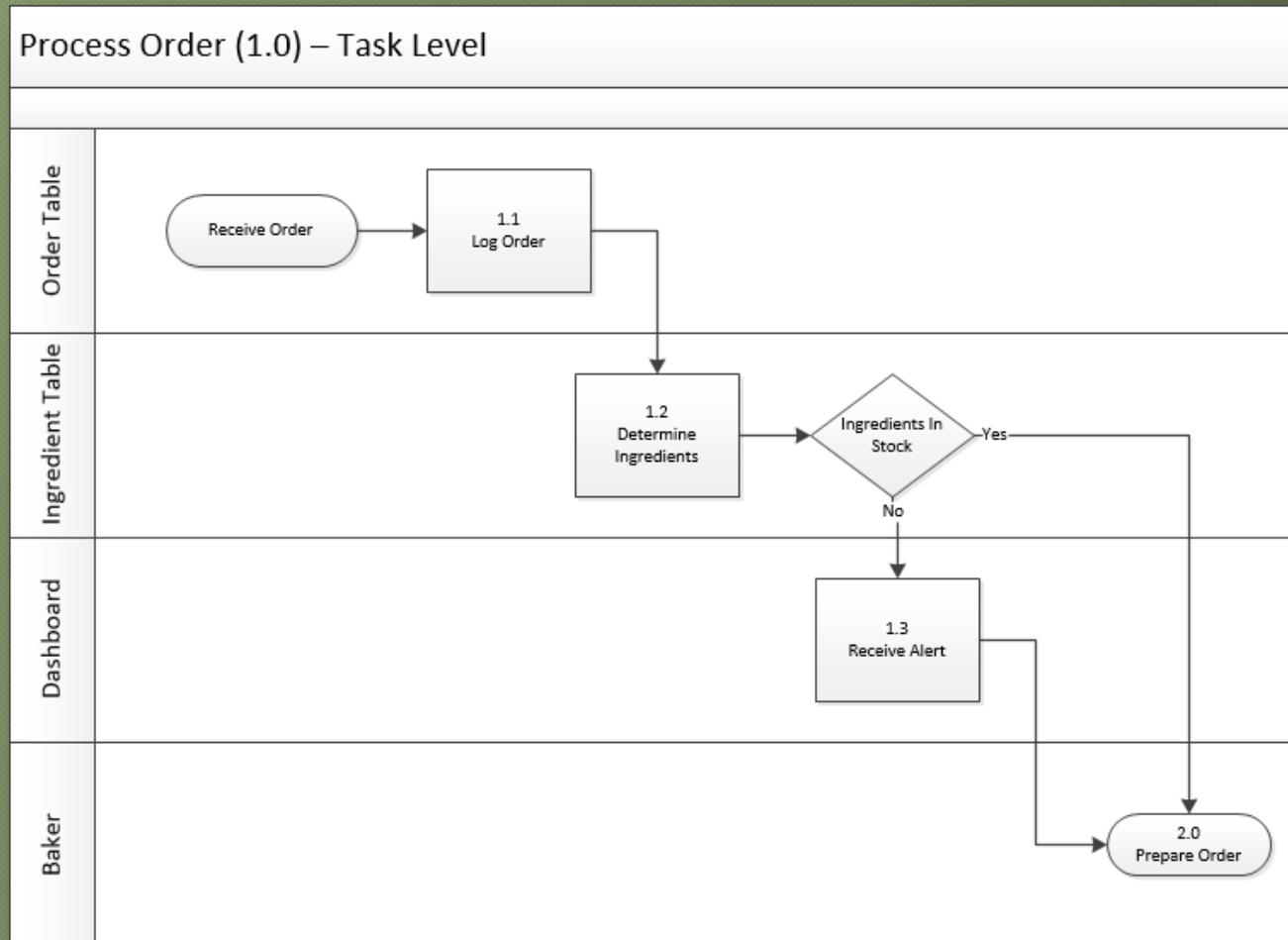
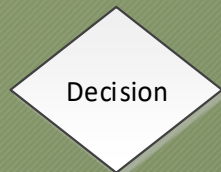
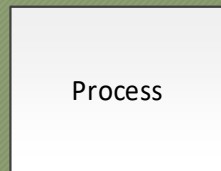
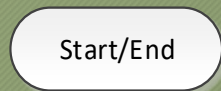
Process Flow Diagram



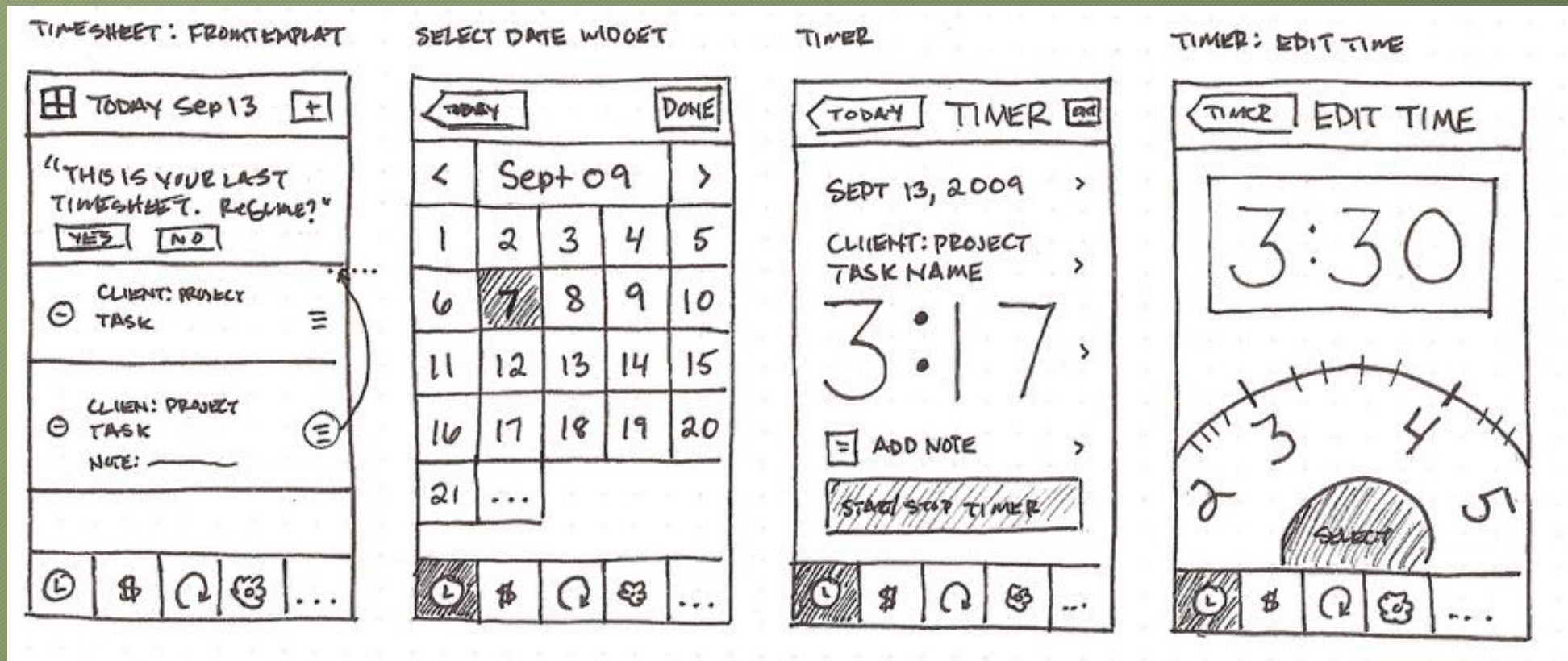
Dough-Licious Pastry Work Flow – Unit Level



Process Flow Diagram



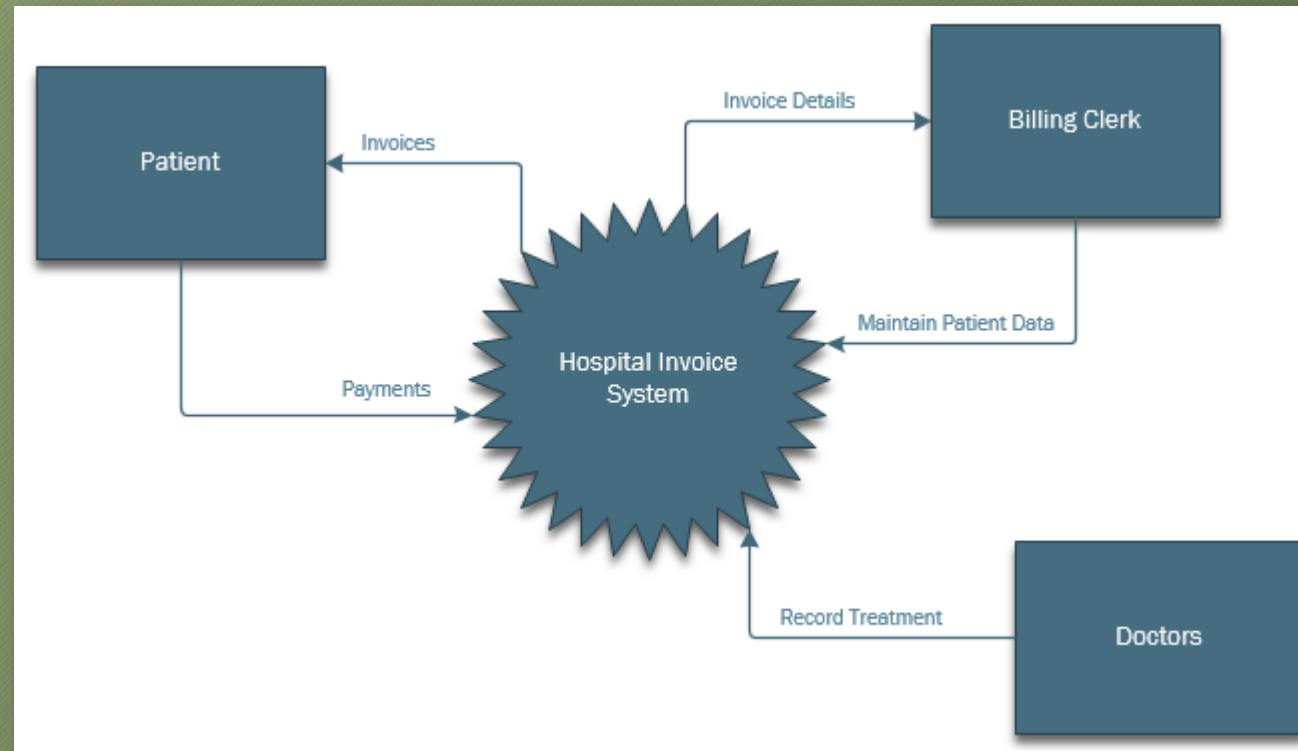
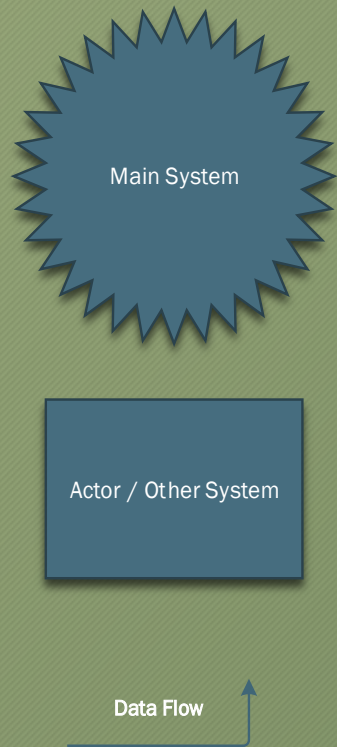
User Interface Wireframe



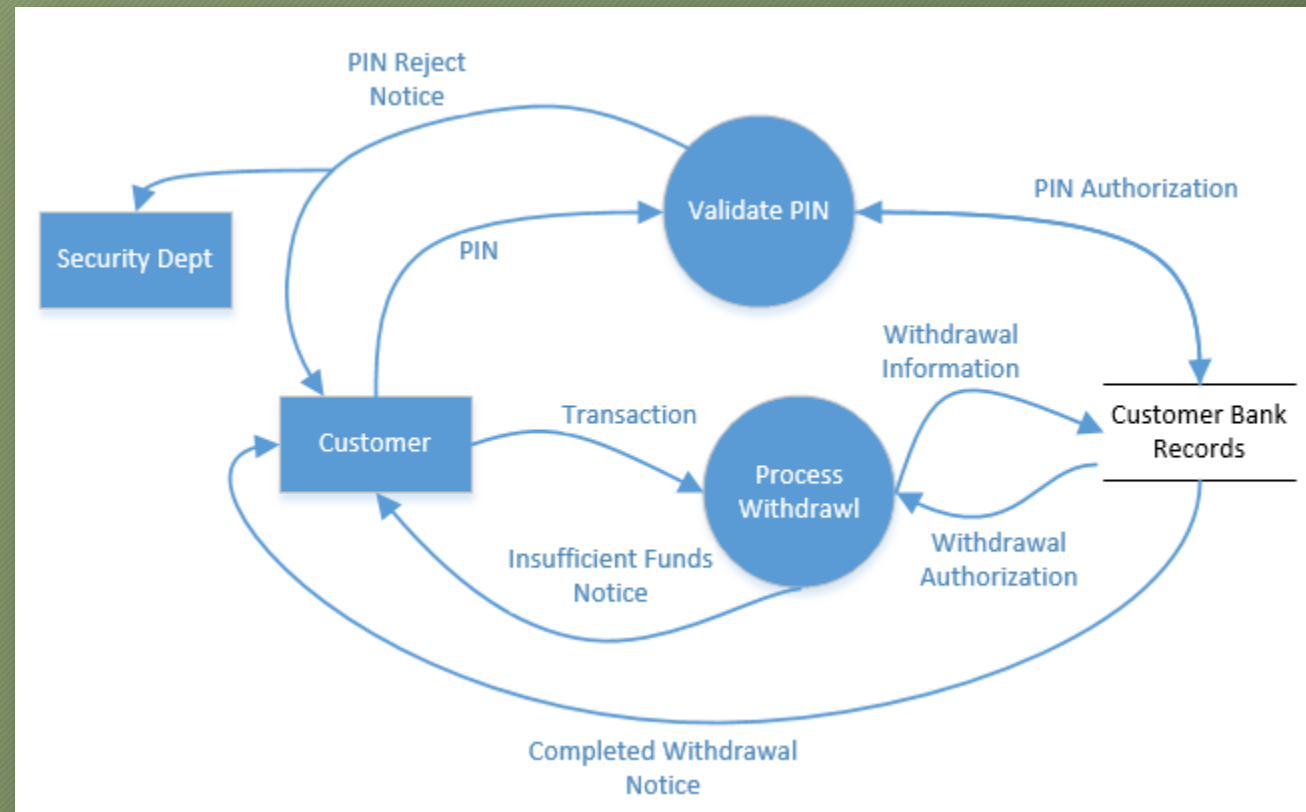
Credit to Anthony Armendariz for the Interface Wireframe example
<https://www.flickr.com/photos/anthonyarmendariz>

Technical Models

System Context Diagram



Data Flow Diagram



CRUD Matrix

Information	Role			
	Doctor	Nurse	Billing Clerk	Billing Manager
Access to Medical Data				
Patient History	CRU	RU	R	R
Test Results	R	R		
Treatment Results	R	R		
Treatment Authorization	CRUD	R		
Access to Administrative Data				
Patient demographics	R	RU	RU	RU
Patient Registration		CRUD	R	R
Billing				
Patient Bill			CRU	CRUD

Create
Read
Update
Delete

CRUD Matrix

Process	Entity			
	Patient	Patient History	Patient Invoice	Patient Account
Process Patient Intake	CRU	CRU		CRU
Maintain Patient Data	RU	RU		RU
Conduct Patient Tests	R	RU		
Prescribe Treatment	R	R		RU
Invoice Patient	RU		C	RU
Receive Payment	R			RU

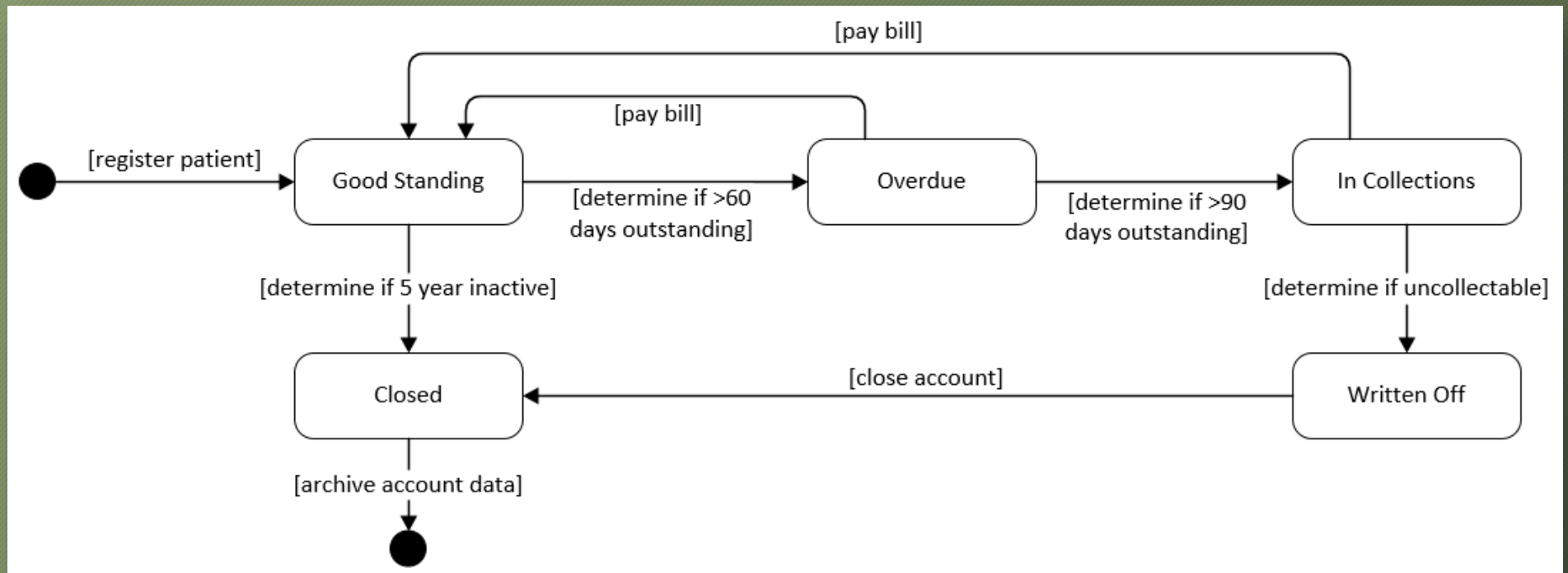
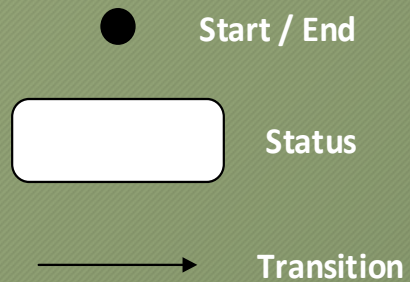
Create

Read

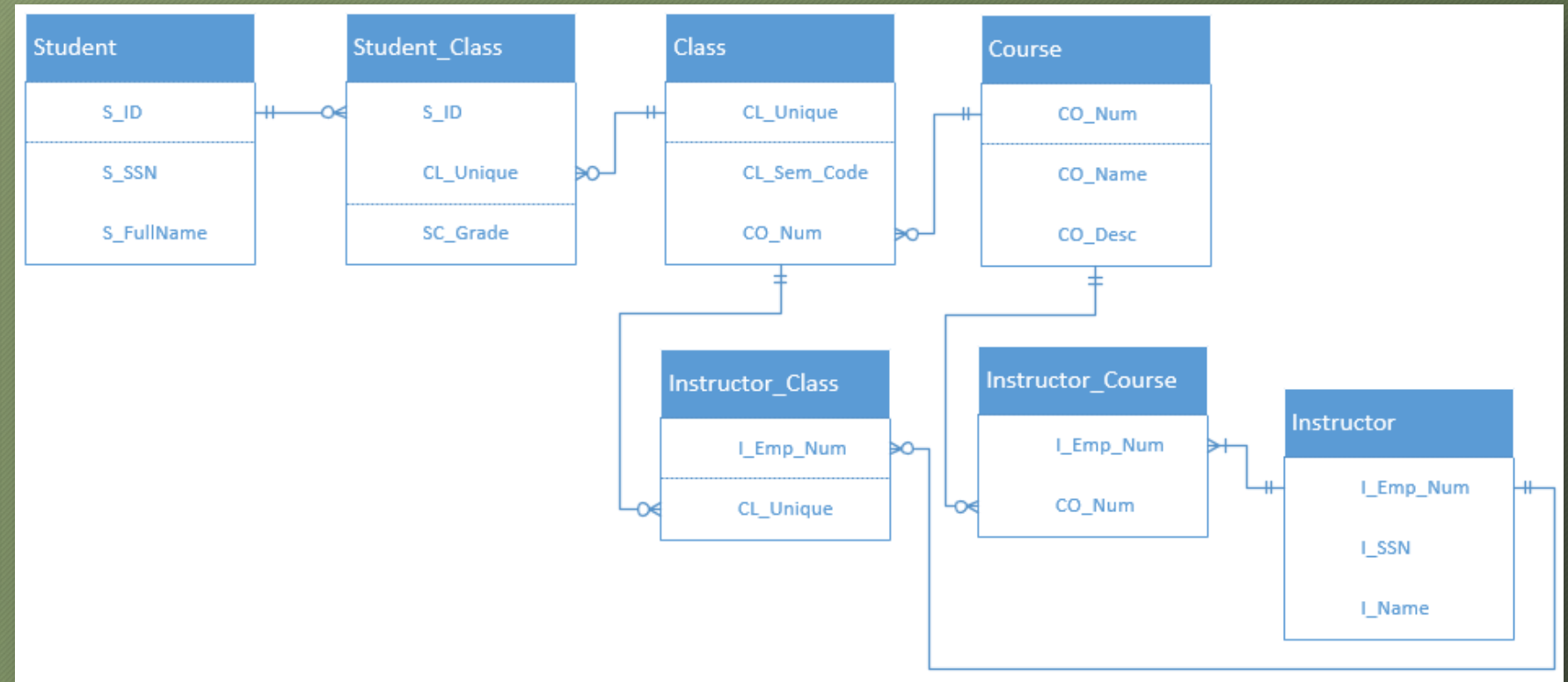
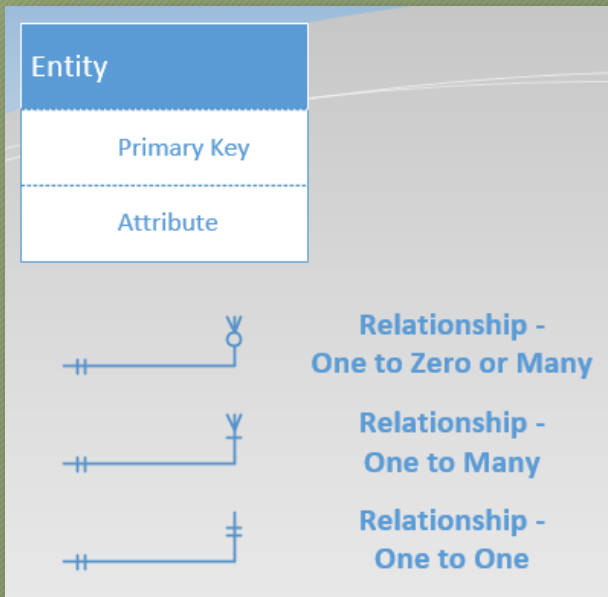
Update

Delete

State Diagram



Entity Relationship Diagram (ERD)



BPMN vs UML

Business Process Modeling Notation

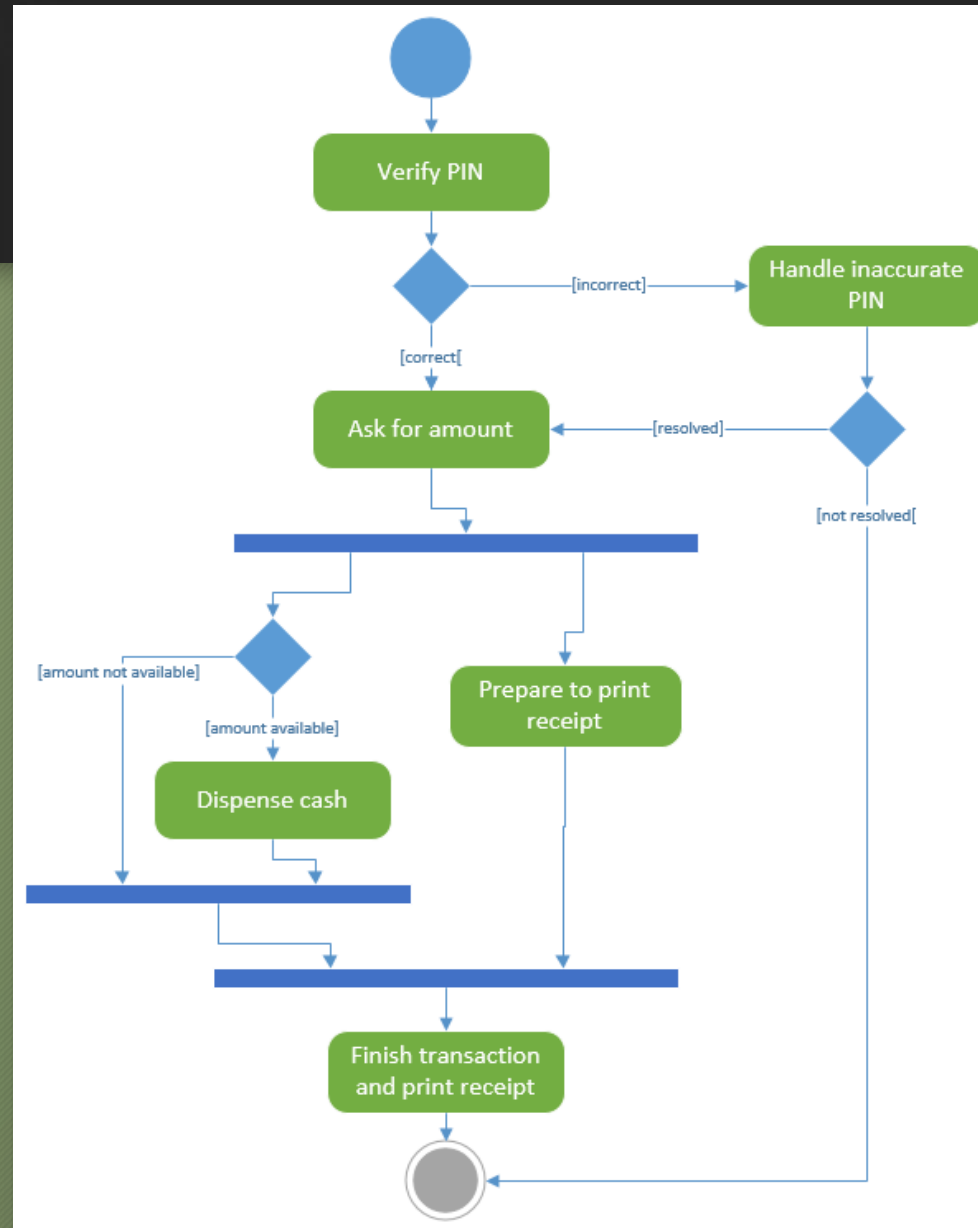
vs

Unified Modeling Language

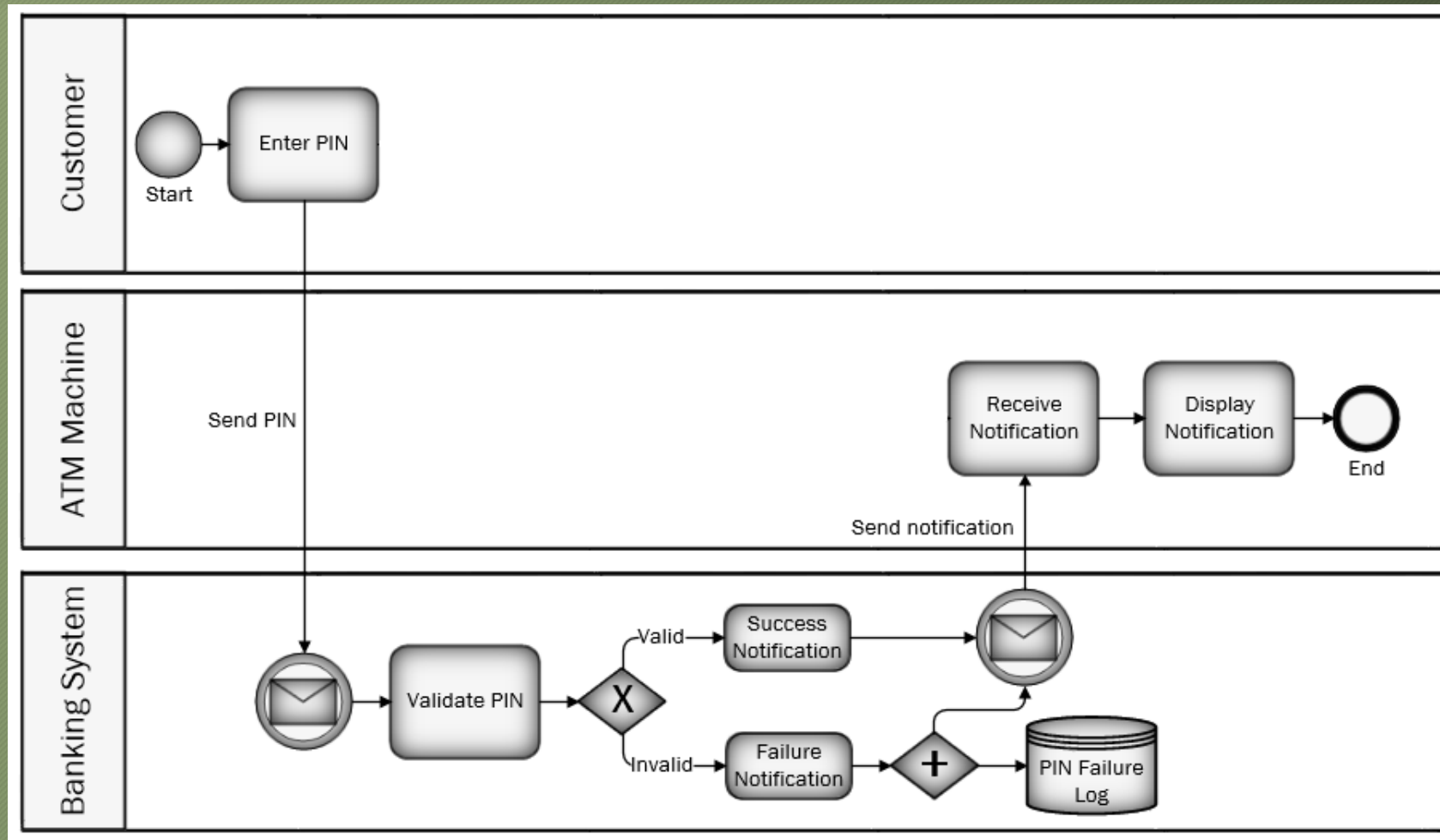
BPMN vs UML: Common Parts

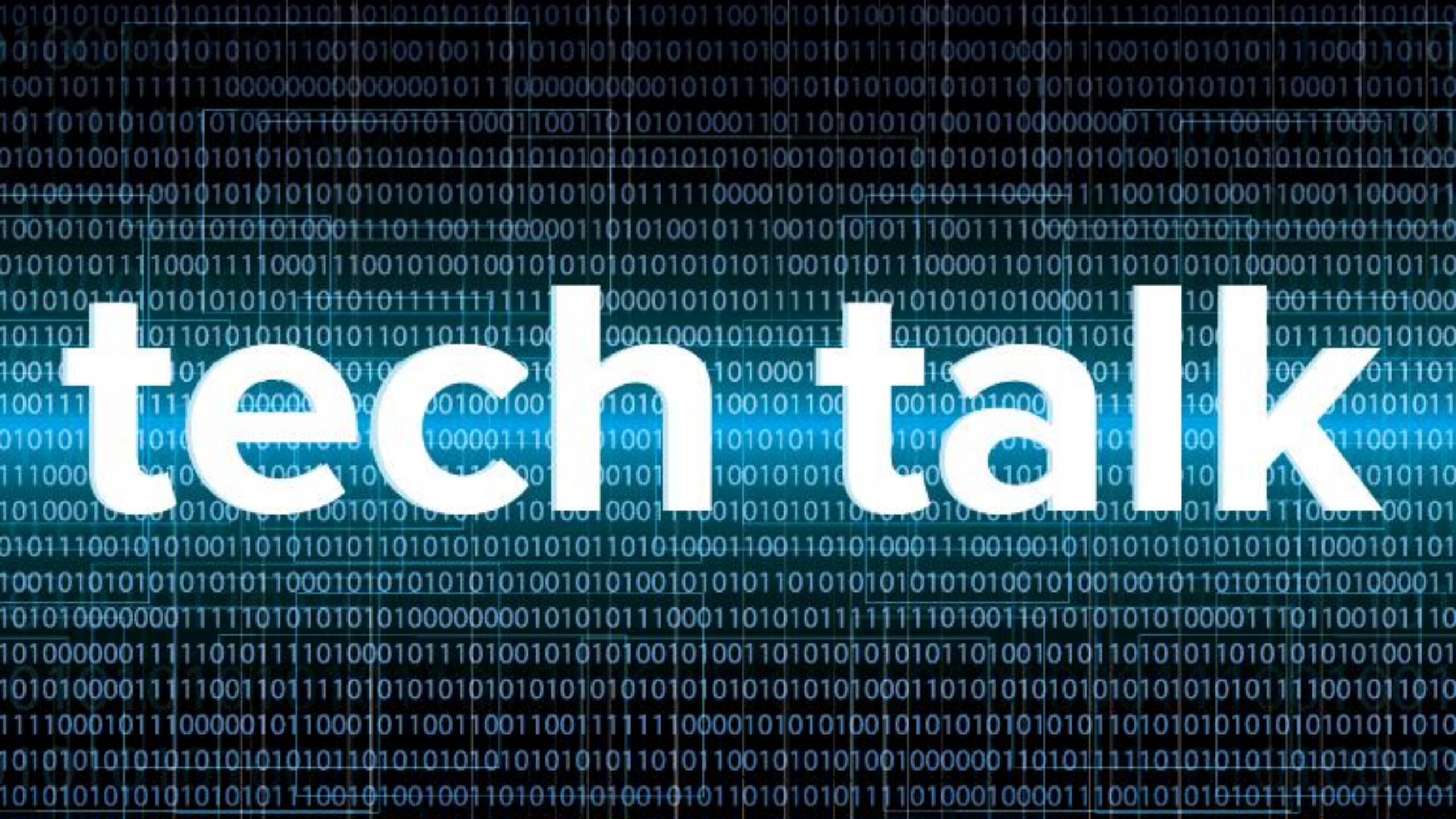
- Activity - Activity within a process, triggered by an event
- Event - Manual or automated action, or delay in time that triggers an action
- Gateway - Split of pathways, where multiple paths can be taken or decision on a path must be made per a condition
- Flow - Direction of the sequence or order of events and actions
- Swimlanes - Visual distinction of who is doing what within a process

UML Activity Diagram



Business Process Modeling (BPMN)





tech talk