MIS3506

Digital Design & Innovation Studio

9: Creating a Use Case

Amy Lavin/ Steve Sclarow

Professional Achievement Points

This is your friendly reminder…

You must have 400 points by the end of this class or you will get an Incomplete

Schedule:

- Today
  - Prototyping and Use Cases
- Week 10 – class #1
  - Use Cases for your Scenario
  - Use Case Diagrams
  - Your 1st prototype

Team Meetings– if I haven't seen you or we don't have a meeting scheduled– get in touch ASAP.

Your PROTOTYPE/ SOLUTION needs to be your focus NOW.

What is a PROTOTYPE?

Ask Watch Learn **Try**

Quick and Dirty Prototyping

HOW: Using any materials available, quickly assemble possible forms or interactions for evaluation.

WHY: This is a good way to communicate a concept to the team and evaluate how to refine the design.

IDEO team members designing a shopping device quickly prototyped various concepts to evaluate qualities like weight, size, and orientation.

IDEO www.ideo.com

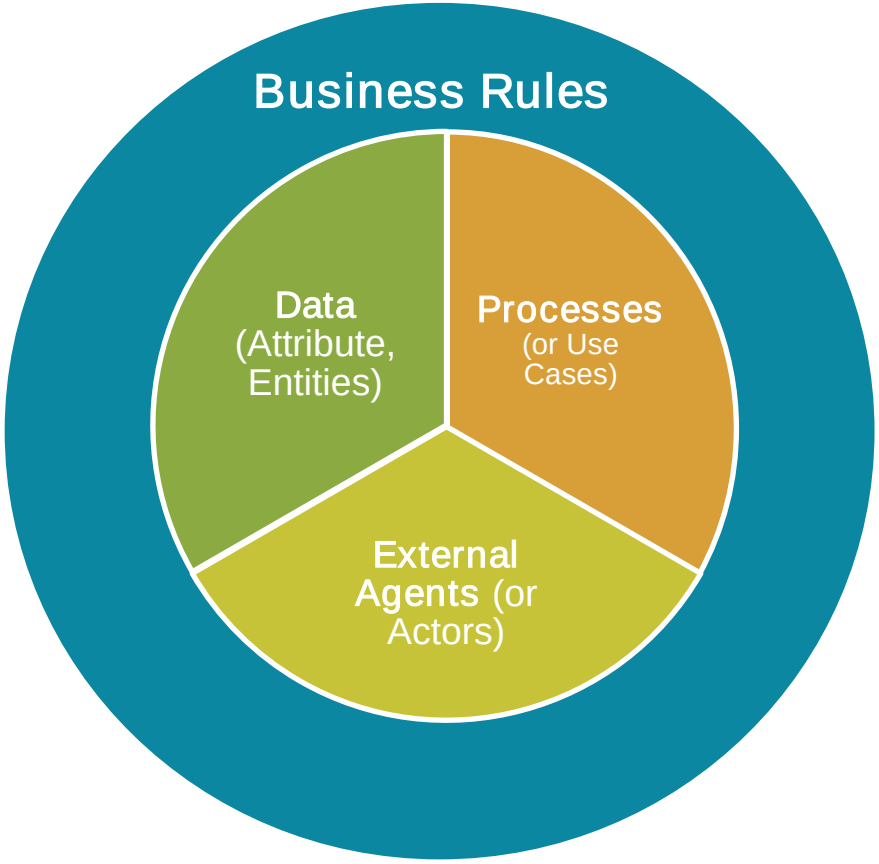
What does a PROTOTYPE do?

PROTOTYPES

1. Provide a partial and preliminary version as a mock up of software/ solution
2. Inexpensively demonstrate how a solution will work – functionality/ navigation/ interfaces
3. Make abstract concepts more concrete and requirements tangible
4. Provide shared work product upon which technical and businesspeople can collaborate

Adapted from Memory Jogger

Core Requirement Components



Prototype as Specification

Core Requirements

- Actors (People)
- Process
- Data
- Business Rules

JIM Prototype

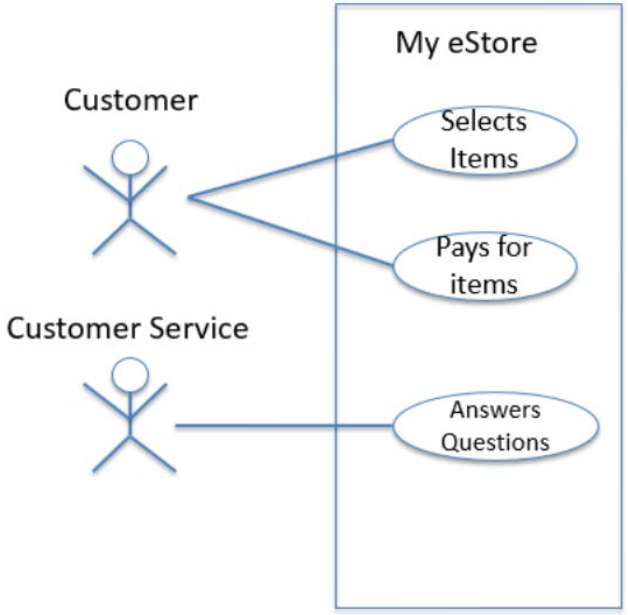
- **Persona** (One or more actors that you consider important enough to show)
- **Process** (A selection of actions that a persona does using the "system")
- **Data Master** (The fields you need to handle for the scenario to be successful)
- **Business Rules & Events** (Logic executing the business rules for your scenario to be a success)

Use Case Diagrams & Use Cases

Understanding HOW people will do their work using your solution

What actions will your users perform using your solution?

The Use Case Diagram



Use Case Diagram Exercise

As a team…

1. Who are all the actors that would use your solution? 5 minutes
2. What are all the actions that they would do using your solution? 10 minutes
3. Draw a preliminary use case diagram for your solution. 15 minutes

Use Cases are a description of how an actor accomplishes a goal using your solution.

Adapted from Memory Jogger (p. 150)

So, what's in a use case?

- High-level identifying data
- A summary of what the use case achieves
- Detailed steps the actor will need to take
- Exception steps that may be needed as a result of errors
- Variations that describe alternative paths through the use case

Use Case Template

1 **Feature Name** (Example: ATM Transaction)

1.1 Feature Process Flow / Use Case Model

1.2 Use Case(s)

Use Case ID:	[illegible]		
Use Case Name:	[illegible]		
Created By:		**Last Updated By:**	
Date Created:		**Last Revision Date:**	

Actors:	[illegible]
Description:	[illegible]
Trigger:	[illegible]
Preconditions:	[illegible] 1. Customer has active deposit account with ATM privileges 2. Customer has an activated ATM card.]
Postconditions:	[illegible] 1. Customer receives cash 2. Customer account balance is reduced by the amount of the withdrawal and transaction fees]
Normal Flow:	[illegible] **normal, expected** [illegible] 1. Customer inserts ATM card 2. Customer enters PIN 3. System prompts customer to enter language performance English or Spanish 4. System validates if customer is in the bank network 5. System prompts user to select transaction type 6. Customer selects Withdrawal From Checking 7. System prompts user to enter withdrawal amount 8. … 9. System ejects ATM card]
Variations: [Alternative Flow 1 – Not in Network]	[illegible]

	Withdraw Cash transaction 4a. In step 4 of the normal flow, if the customer is not in the bank network 1. System will prompt customer to accept network fee 2. Customer accepts 3. Use Case resumes on step 5 4b. In step 4 of the normal flow, if the customer is not in the bank network 1. System will prompt customer to accept network fee 2. Customer declines 3. Transaction is terminated 4. Use Case resumes on step 9 of normal flow Note: Insert a new row for each distinctive alternative flow…]
Exceptions:	[Describe any anticipated **error conditions** that could occur during execution of the use case, and define how the system is to respond to those conditions. e.g. Exceptions to the Withdraw Case transaction 2a. In step 2 of the normal flow, if the customer enters and invalid PIN 1. Transaction is disapproved 2. Message to customer to re-enter PIN 3. Customer enters correct PIN 4. Use Case resumes on step 3 of normal flow]

Use Case Exercise

As a team…

1. Pick one of the simpler Use Cases on your diagram.
2. Write a brief description of the case focusing on what the actor is trying to accomplish and how he/she gets it done
3. List the steps in the primary path, test them.
4. Are there any alternative paths?
5. What errors might occur, how would you handle these exceptions.

You have 30 minutes.

Tuesday, bring . . .

1. An improved Use Case Diagram for your solution
2. Use cases for all the interactions you wish to include in your scenario (i.e. what you will show your client)
3. Your first working prototype

Project Team Work Time