



**STEVENS**  
INSTITUTE of TECHNOLOGY  
THE INNOVATION UNIVERSITY®

# SSW 322: Software Engineering Design VI

*Introduction to Course Project  
2020 Spring*

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Babbio 513

Office Hour: Monday/Wednesday 2 to 4 pm

Software Engineering

School of Systems and Enterprises





# Option1: Survey/Test System

- The system that allows a survey/test to be created, stored, modified, loaded, taken and tabulated/graded.
- A survey/test can be composed of any combination of: True/False, Multiple Choice, short answer, essay answer, matching, rank the choices. Each question can accept a single answer or if appropriate, multiple answers. Obviously a True/False question would not accept multiple answers.
- Tests could have correct answers and therefore could be graded.
- Surveys don't have correct answers and therefore could be tabulated.



# Function Check List

- Create a new survey/test
- Save a new survey/test
- Load a pre-saved survey/test
- Modify a loaded survey/test
- Take a test/survey
- Grade a test (\*)
- Tabulate a survey (\*)



# Question Types

- True/False
- Multiple Choice
- Short answer
- Essay answer
- Matching
- Ranking
- One correct answer
- Multiple correct answers
- No standard



# Option2: Meal Sharing Application

- This application allows users to post information about a meal cooked and invite guests to join.
- A meal should be described in three parts: appetizer, main entree, and desert. Each part may have multiple dishes. Each dish should specify the ingredients to avoid allergy.
- Together with the meal information, the host should also indicate the location, time of the meal, number of allowed guests, the fee for the meal per person, and how long this invitation will be active.
- A potential guest can find available meal information within a certain distance. The guest can accept an invitation posted online and wait for the host to confirm.



# Function Check List

- The host can create and post a meal invitation
  - Information about the dishes
  - Information about the invitation
- The guest can browse and accept an invitation
  - Browse based on food ingredient (include or not include)
  - Browse based on distance
- The host can confirm an accepted request
  - Host and guest will be notified if the Meal Sharing is mutually confirmed



# Key Information Elements

- Meal Information
  - Each meal can contain multiple dishes
  - Each dish should be described as appetizer, main entrée, and desert, and with the detailed ingredient specified.
- Invitation Information: location, time of the meal, number of allowed guests, the fee for the meal per person, and how long this invitation will be active.
- Each user need to provide his/her current location to browse meal invitation and accept an invitation.



# Option3: Exchange4Students Application

- This application allows Stevens students to exchange items on campus. There are five types of items that can be exchanged on this platform: books, clothing, furniture, electronics, and sports gear.
- A student can take both the seller role and the buyer role.
- A seller can post/revise information about an item he/she no longer needs. Besides the item information, the seller can also indicate whether shipping is allowed.
- A buyer can browse items that he/she need based on category and keywords; and add the items to the shopping bag.
- A buyer can place an order and all the sellers of the items in the order will be notified.





# Function Check List

- A seller can post information of an item to sell and make modification to the item description.
- A buyer can browse items to purchase based on item type and keywords.
- A buyer can add items to the shopping cart.
- A buyer can place an order for the items in the shopping cart.
- The seller and buyer will both receive an order confirmation.



# Key Information Elements

- Books: book title, description, edition, course number, price
- Clothing: type, description, color, size, price
- Furniture: type, description, color, dimension, weight, price
- Electronics: type, description, model, dimension, weight, price
- Sports gear: type, description, weight, price
- Shopping cart: a list of items and a total amount
- Order/Confirmation: a list of items and a total amount



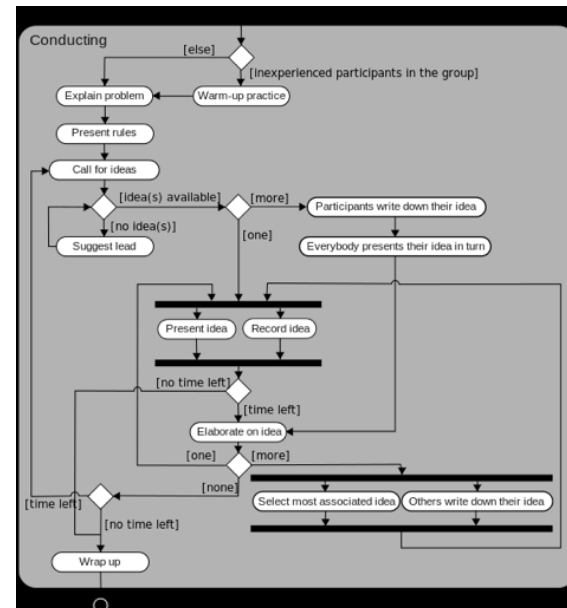
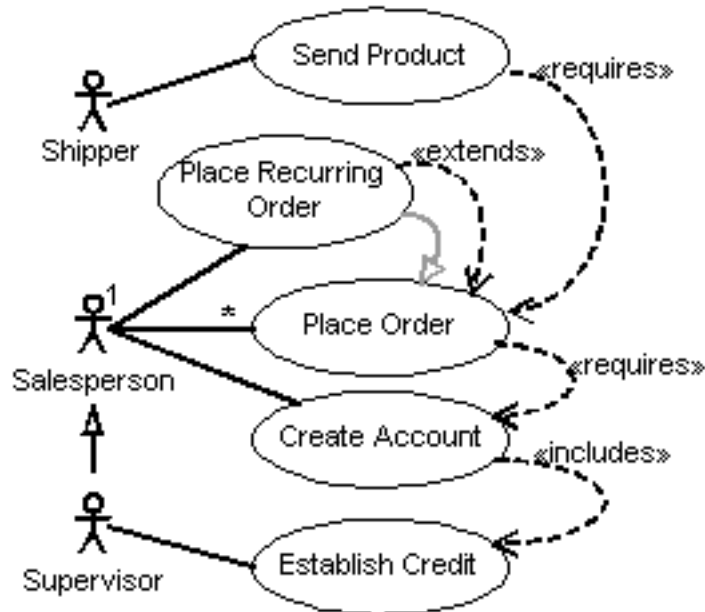
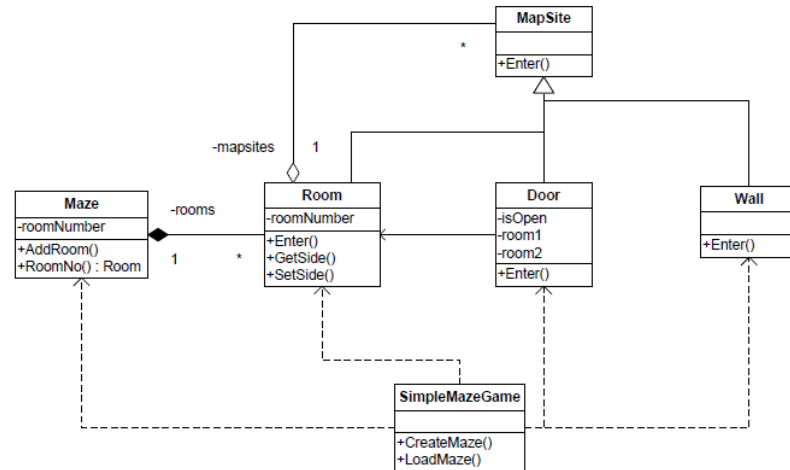
# Milestone 1

- Paper prototyping
- Usability testing
- <https://www.youtube.com/watch?v=ONV9X-71ma8&feature=youtu.be>

# Milestone 2

## Initial Design

- Use case diagram
- Class diagram
- Activity diagram





# Milestone 3 and 4

- Test/Survey System:
  - M3: Create, display, and store a test/survey
  - M4: Load, modify, and take a pre-existing test/survey
- Meal Sharing Application:
  - M3: Create and post meal invitation
  - M4: Browse and accept invitation
- Exchange4Students Application:
  - M3: Post an item to sell
  - M4: Browse items, add to cart, and place an order

