

ISEN Week02

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1. Actors

a. A word processor.

- Human actors: people using it.
- Non-human actors: a computer that runs the program.

b. An online retail website.

- Human actors: people shopping on it and the people who own and run the website.
- Non-human actors: the website itself.

c. A class registration system.

- Human actors: students and teachers using it, the people who manage it.
- Non-human actors: the system itself.

d. An online mapping application.

- Human actors: people using it, the people who made and maintained it.
- Non-human actors: the application itself.

e. A set of traffic lights

- Human actors: drivers and people walking.
- Non-human actors: the lights themselves, and any sensors or cameras that help them work.

2. User Stories

(b) Online retail website:

- As a shopper, I want to be able to easily find items within my budget.
- As a shopper, I want to be able to save items I'm interested in for later.
- As a website owner, I want to track how people use my website so I can make it better.
- As a shopper, I want to be able to read reviews from other customers.

(c) Class registration system:

- As a student, I want to be able to see what classes are available and when they meet.

- As a teacher, I want to be able to limit the number of students in my class.
- As a registrar, I want to be able to keep track of who's enrolled in each class.
- As a student, I want to get confirmation that I'm registered for a class.

(d) Online mapping application:

- As a user, I want to be able to find directions to a specific place.
- As a user, I want to know about traffic so I can avoid delays.
- As a user, I want to save my favorite places so I can find them easily.
- As a user, I want to be able to switch between different types of maps.

3. Use Cases

Use Case: Purchase Item

System: Online Retail Website

Goal: To allow a shopper to purchase an item from the online retail website.

Actors:

- Shopper
- Website

Trigger: Shopper selects an item they wish to purchase and indicates that they are ready to complete the transaction.

Preconditions:

- Shopper has registered an account with the website.
- Shoppers have added the item to their shopping cart.

Flow of Events:

1. Shopper clicks on their shopping cart and verifies that the correct item is present.
2. Shopper proceeds to checkout and enters their shipping and payment information.
3. Website confirms the order and sends a confirmation email to the shopper.
4. Website notifies the appropriate parties to prepare the item for shipment.
5. Shopper receives the item and confirms that it matches the description on the website.

Extensions:

- If the shopper's payment information is invalid, the website displays an error message and prompts the shopper to update their payment information.
- If the item is out of stock, the website displays an out-of-stock message and prompts the shopper to remove the item from their shopping cart.

Use Case: View Traffic Updates

System: Online Mapping Application

Goal: To allow a user to view real-time traffic updates on the online mapping application.

Actors:

- User
- Mapping Application

Trigger: User opens the mapping application and selects the traffic view.

Preconditions:

- User has a device with internet access.
- Mapping Application has up-to-date traffic data.

Flow of Events:

1. User opens the mapping application and selects the traffic view.
2. Mapping Application retrieves and displays real-time traffic updates for the user's current location.
3. Users can zoom in or out and move the map to view traffic updates for different locations.
4. Mapping Application updates traffic data periodically as new information becomes available.

Extensions:

- If there is no internet connection, the Mapping Application displays an error message and prompts the user to connect to the internet.
- If there is a problem with the Mapping Application's traffic data, the application displays an error message and prompts the user to try again later.

4. Use Cases Diagram

