Worksheet 2: Functional Requirements

Updated: 15th February, 2022

Attempt this worksheet individually.

1. Actors

For each of the following systems, identify the actors, both human and non-human:

  (a) A word processor.
  (b) An online retail website.
  (c) A class registration system.
  (d) An online mapping application.
  (e) A set of traffic lights.

> **Note:** You should find multiple human actors for most of these systems. For non-human actors, consider what other systems – software or hardware – might need to access the same data.

2. User Stories

For each of (b), (c) and (d) above, suggest <u>four</u> or more important user stories. Consider various human actors.

For this purpose, pick user stories that each relate to a single *functional* requirement. (In general, user stories could relate to *any* requirement, but we'll focus on functional requirements for now.)

> **Note:** Remember that a user story is a single sentence of the form:
>
>   "As a_____I want to_____so that_____."
>   [actor name]   [ability/functionality]   [benefit/rationale]
>
> All three parts must be present, and they must be meaningful.

3. Use Cases

Pick <u>two</u> of your user stories, for different systems, and convert/expand them into complete use cases (system-scope, user-goal-level).

You must identify the goal, all actors, the trigger, any preconditions, flow of events and extensions.

4. Use Case Diagram

Pick one of (b), (c) and (d) from part 1, and draw a use case diagram for the whole system. Your diagram should show all actors and significant use cases. You do not need to consider «include» relationships.

Note: Use case diagrams are a very broad picture of a system. They don't show any details of a use case other than its name and the actors involved. For instance, the use case flow of events is not shown here.

Any «include» relationships (arrows between use cases), if they exist at all, do not represent time or order. Do not confuse use case diagrams with activity graphs.

End of Worksheet