CSTE Certified Software Tester

QAI QUALITY ASSURANCE INSTITUTE WORLDWIDE

QAI CHAPTER NETWORK

BEST PRACTICE
Use Cases

A use case is a description of how a user (or another system) uses the system being designed to perform a given task. A system is described by the sum of its use cases. Each instance or scenario of a use case will correspond to one test case. Incorporating the use case technique into the development life cycle will address the effects of incomplete, incorrect, and missing test cases. Use cases are an easy-to-use approach that is applicable to both conventional and object-oriented system development.

Use cases provide a powerful means of communication between customer, developers, testers, and other project personnel. Test cases can be developed with system users and designers as the use cases are being developed.
Using the use case approach will ensure not only meeting requirements, but also expectations.

Define Use Cases

An individual use case consists of:

- Preconditions that set the stage for the series of events that should occur for the use case
- Results that state the expected outcomes of the above process
- Sequential narrative of the execution of the use case

Use cases are used to:

- Manage (and trace) requirements
- Identify classes and objects (OO)
- Design and code (Non-OO)
- Develop application documentation
- Develop training
- Develop test cases

The use case is defined by the actor. The actor represents the system boundary interface and prepares all of the use cases for that system boundary interface. Note that this can be done by a single individual or a team of individuals.

The information about each use case that needs to be determined for defining the case follows:

- Use Case Name or ID
  A short phrase in business terms or identifier that identifies and describes the use case.

- Actor
  Anything that needs to exchange information with the system. Often it is a role played by the user of the system or it could be another system.

- Objective
  A description of what a use case accomplishes given a defined set of conditions.

- Preconditions
  The entrance criteria or state that the system must be in for the use case to execute.

- Results
  The expected completion criteria of the use case.

- Detailed Description
  - The sequence of steps (performed by the actor) necessary to execute the use case.
  - The model (system) response of each step.
  - This is the basic course of events that support the precondition and results.
  - The description is from a user's ("black-box") point of view and does not include details about the events of the internal system.

- Exceptions
  Errors or deviations that may occur that cause the actor to deviate from the basic course.

- Alternative Courses
  - A deviation from the step-by-step event so the Detailed Description that generally inserts extra steps or omits steps.
  - These are valid events, but are not the basic course of events.

References

Guide – CSTE Common Body Of Knowledge, V6.1