

# software engineering glossary

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## Use Case Terminology

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**actor:** In UML, someone or something outside the system that interacts with the system.

**alternate flow:** The part of a use case that describes its alternative implementations. It's also used to describe error conditions, since errors can be considered a kind of alternate. *Also called alternate path.*

**association:** In UML, a relationship between an actor and a use case that indicates that the actor interacts with the system by means of the use case.

**basic flow:** The part of a use case that describes its most common implementation. The basic flow is written assuming that no errors or alternatives exist. *Also called basic path or happy day scenario.*

**constraint:** A semantic condition or restriction that describes a limitation or state. For example, a constraint might be a limitation on some data's range of values or on some behavior of the application, or it could be a description of a required state of the system at a particular point in time.

**extend:** In UML, a relationship from an extending use case to a base use case specifying how the behavior defined for the extending use case can be optionally inserted into the behavior defined for the base use case.

**include:** In UML, a relationship from a base use case to an included use case specifying how the behavior defined for the included use case can be inserted into the behavior defined for the base use case.

**model:** A semantically closed abstraction of a system or a complete description of a system from a particular perspective. Examples include use case, architecture, and domain models and code.

**Object Management Group (OMG):** An international standards organization that owns and maintains CORBA and UML standards.

**postcondition:** A constraint that must be true when a use case has ended.

**precondition:** A constraint that must be true when a use case is invoked.

**relationship:** A semantic connection between model elements. Examples include associations, dependencies, and generalizations. Relationships to use cases include **association**, **extend**, and **include**.

**requirement:** A condition or capability to which a system must conform. Requirements are either derived from user needs or stated in a contract, standard, specification, or other formally imposed document.

**scenario:** A description of a specific sequence of actions. In use case sce-

narios, specific persons or actor instances replace actors, and only one path is taken through the use case's possible basic and alternate flows. *Also called use case instance.*

**system:** A conceptual entity defined by its boundaries. Examples include companies, divisions, sets of software applications, components, machines, and devices.

**Unified Modeling Language (UML):** A graphical language for visualizing, specifying, constructing, and documenting an object-oriented software-intensive system's artifacts.

**use case:** In UML, a complete task of a system that provides a measurable result of value for an actor. More formally, a use case defines a set of use case instances or scenarios.

**use case diagram:** A UML diagram that shows actors, use cases, and their relationships.

**use case model:** A model that describes a system's functional requirements in terms of use cases.

**use case specification:** A document that describes a use case. A use case specification's fundamental parts are the use case name, brief description, precondition, basic flow, postcondition, and alternate flow. ☞

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