



# UML

Unified Modeling Language  
Use Case Diagram

# USE CASE DIAGRAM

Overview of the actors involved in a system, different functions needed by those actors and how these different functions interact.

Identify the main actors involved and the main processes of the system.

Relationship types:

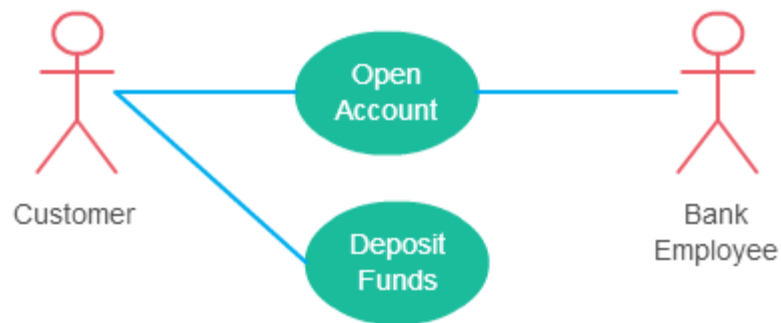
- Association between actor and use case
- Generalization of an actor
- Extend between two use cases
- Include between two use cases
- Generalization of a use case

# ASSOCIATION BETWEEN ACTOR AND USE CASE

An actor must be associated with at least one use case.

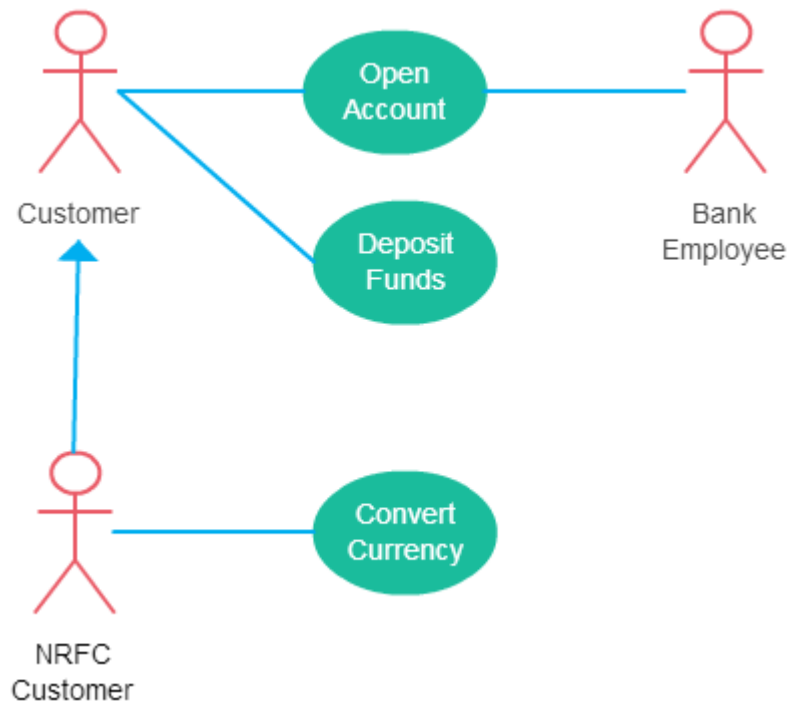
An actor can be associated with multiple use cases.

Multiple actors can be associated with a single use case.



# GENERALIZATION OF AN ACTOR

One actor can inherit the role of the other actor

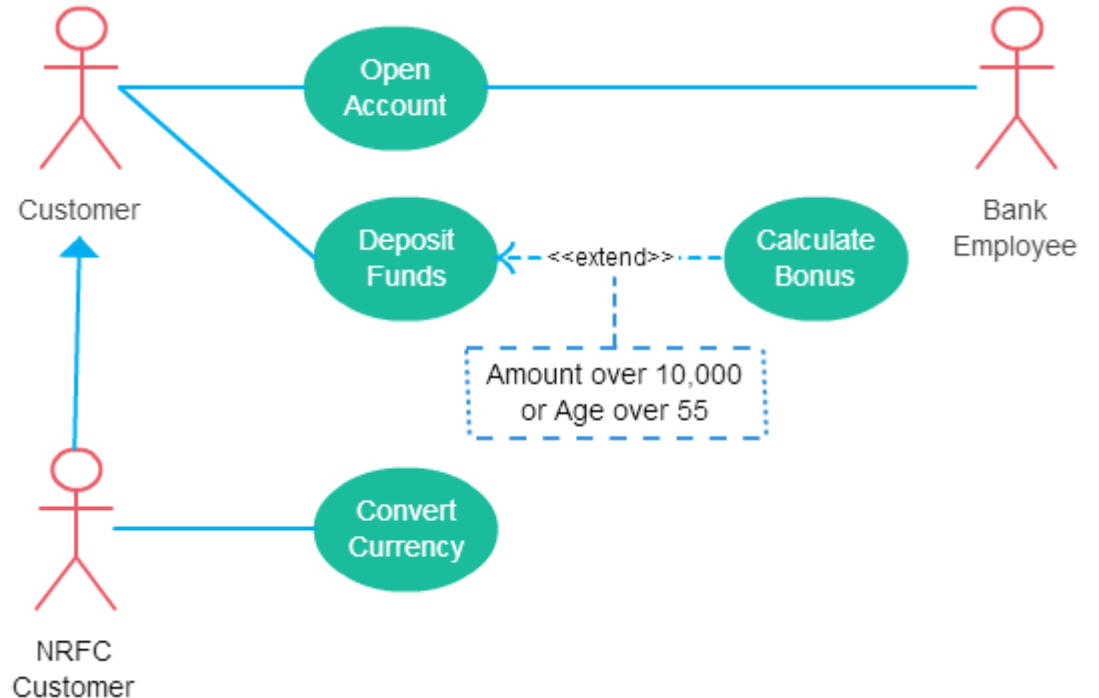


# EXTEND RELATIONSHIP BETWEEN TWO USE CASES

The extending use case is dependent on the extended (base) use case

The extending use case is usually optional

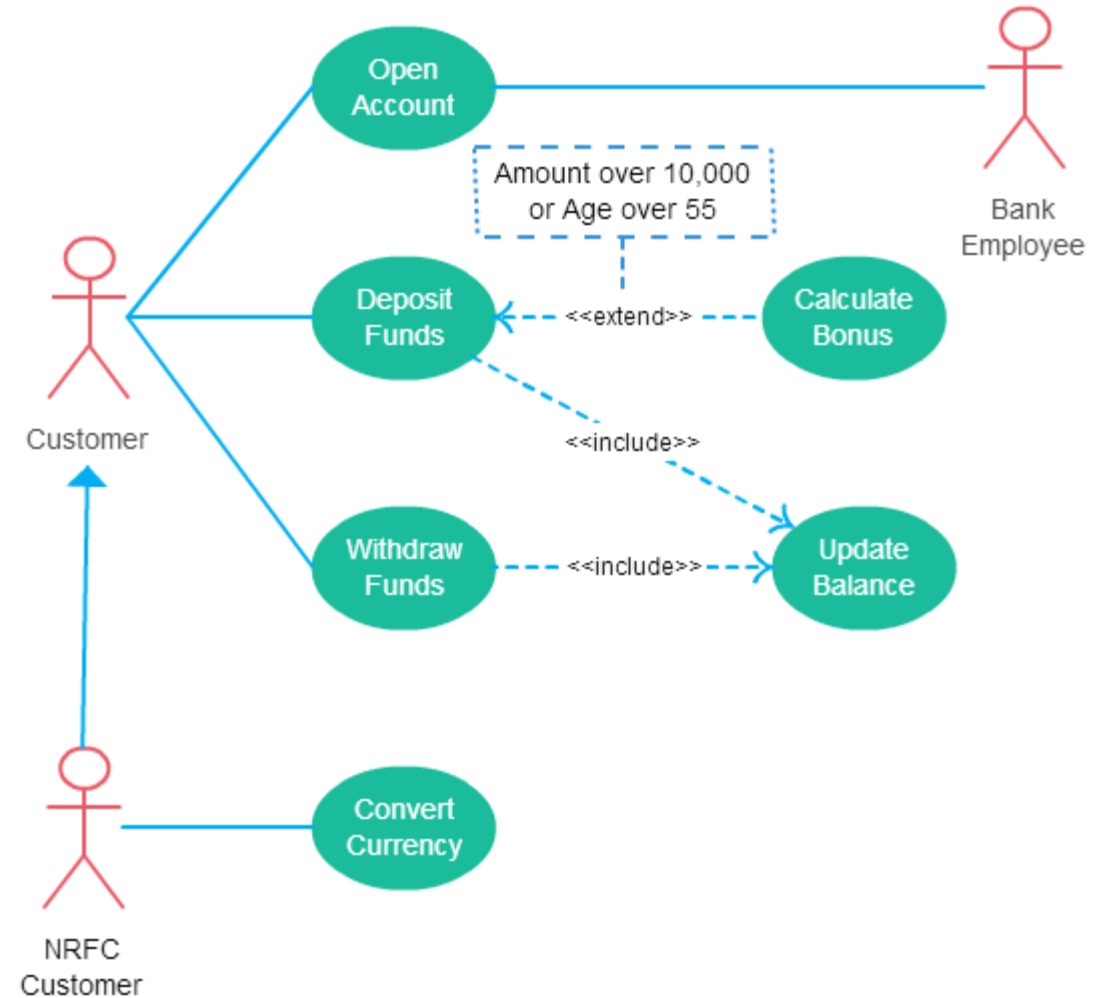
The extended (base) use case must be meaningful on its own



# INCLUDE RELATIONSHIP BETWEEN TWO USE CASES

The base use case is incomplete without the included use case.

The included use case is mandatory and not optional.



# GENERALIZATION OF A USE CASE

Similar to the generalization of an actor

The behavior of the ancestor is inherited by the descendant

For example, in the previous banking example, there might be a use case called “Pay Bills”. This can be generalized to “Pay by Credit Card”, “Pay by Bank Balance” etc

