

UML – Activity Diagrams

Activity Diagrams

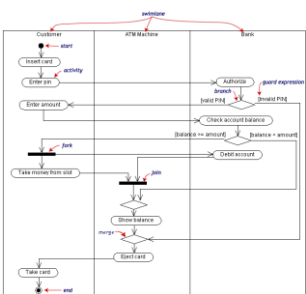
An **activity diagram** is essentially a fancy flowchart.

An activity diagram focuses on the flow (sequence) of activities involved in a single process.

The activity diagram shows how those activities depend on one another.

Suppose we used the following process.

"Withdraw money from a bank account through an ATM."



The three involved classes (people, etc.) of the activity are **Customer**, **ATM**, and **Bank**.

The process begins at the black start circle at the top and ends at the concentric white/black stop circles at the bottom.

The activities are rounded rectangles.

Activity diagrams can be divided into object *swimlanes*

Swimlanes determine which object is responsible for which activity.

A single **transition** comes out of each activity, connecting it to the next activity.

A transition may **branch** into two or more mutually exclusive transitions.

Guard expressions (inside []) label the transitions coming out of a branch.

A branch and its subsequent **merge** marking the end of the branch appear in the diagram as hollow diamonds.

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7

A transition may **fork** into two or more parallel activities.

The fork and the subsequent **join** of the threads coming out of the fork appear in the diagram as solid bars.

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8