

Activity diagrams

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Introduction

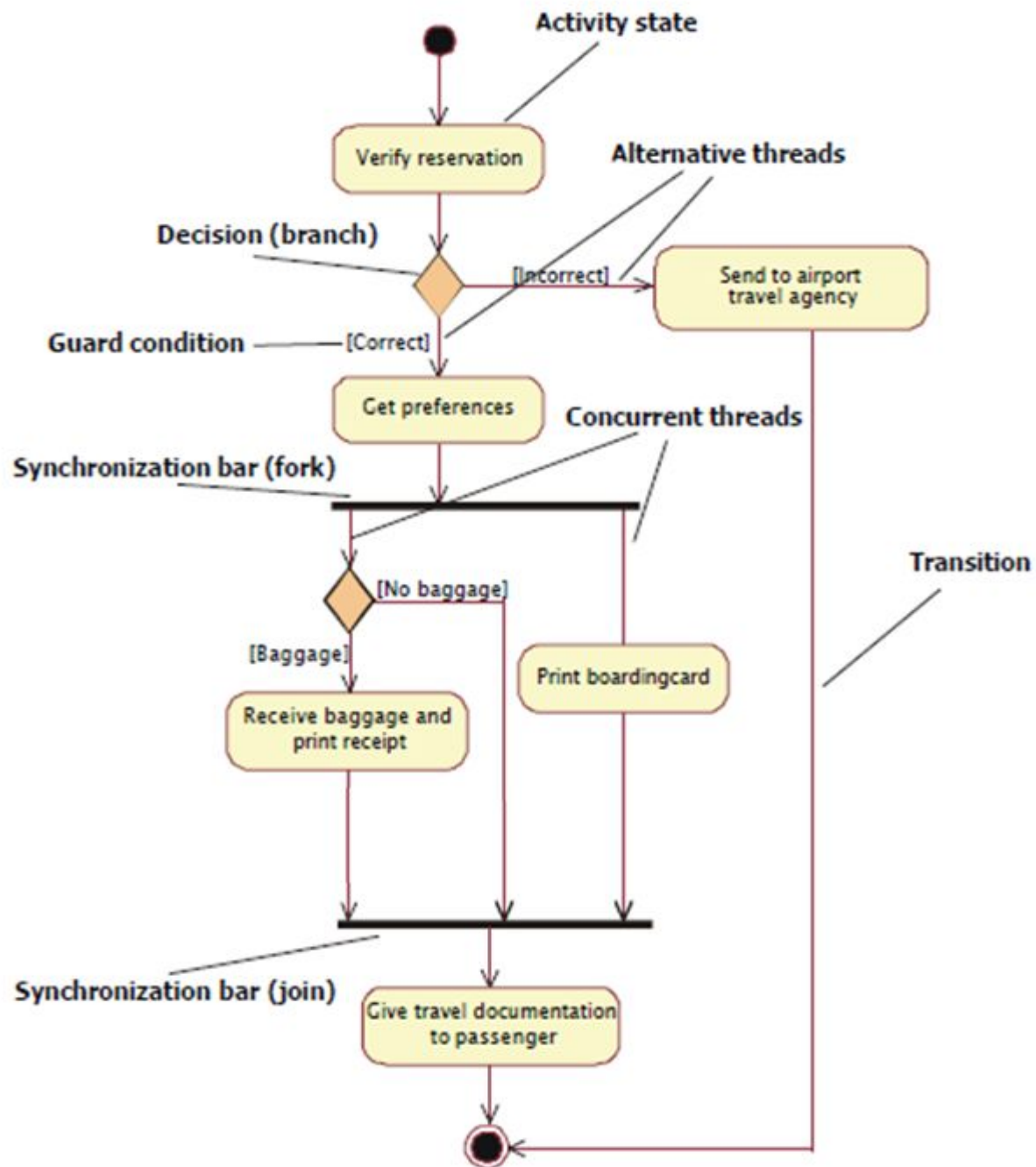
- It shows what happens in a workflow, what activities can be done in parallel and presenting alternative paths
- Activity diagram has various if-else and do-until statements to diagram

Elements of activity diagram

- **Activity state:** represent the performance of a step within the workflow
- **Transitions:** show what activity state follows after another.

This type of transition is sometimes referred to as a completion transition, as it is triggered by the completion of an activity and does not need external trigger

- **Decision:** Choosing among multiple alternatives
- **Guard conditions:** Controls which set of alternatives to follow
- **Alternative threads:** multiple possible paths to follow
- **Synchronization bar:** used to show parallel sub-flows. It may join or separate them



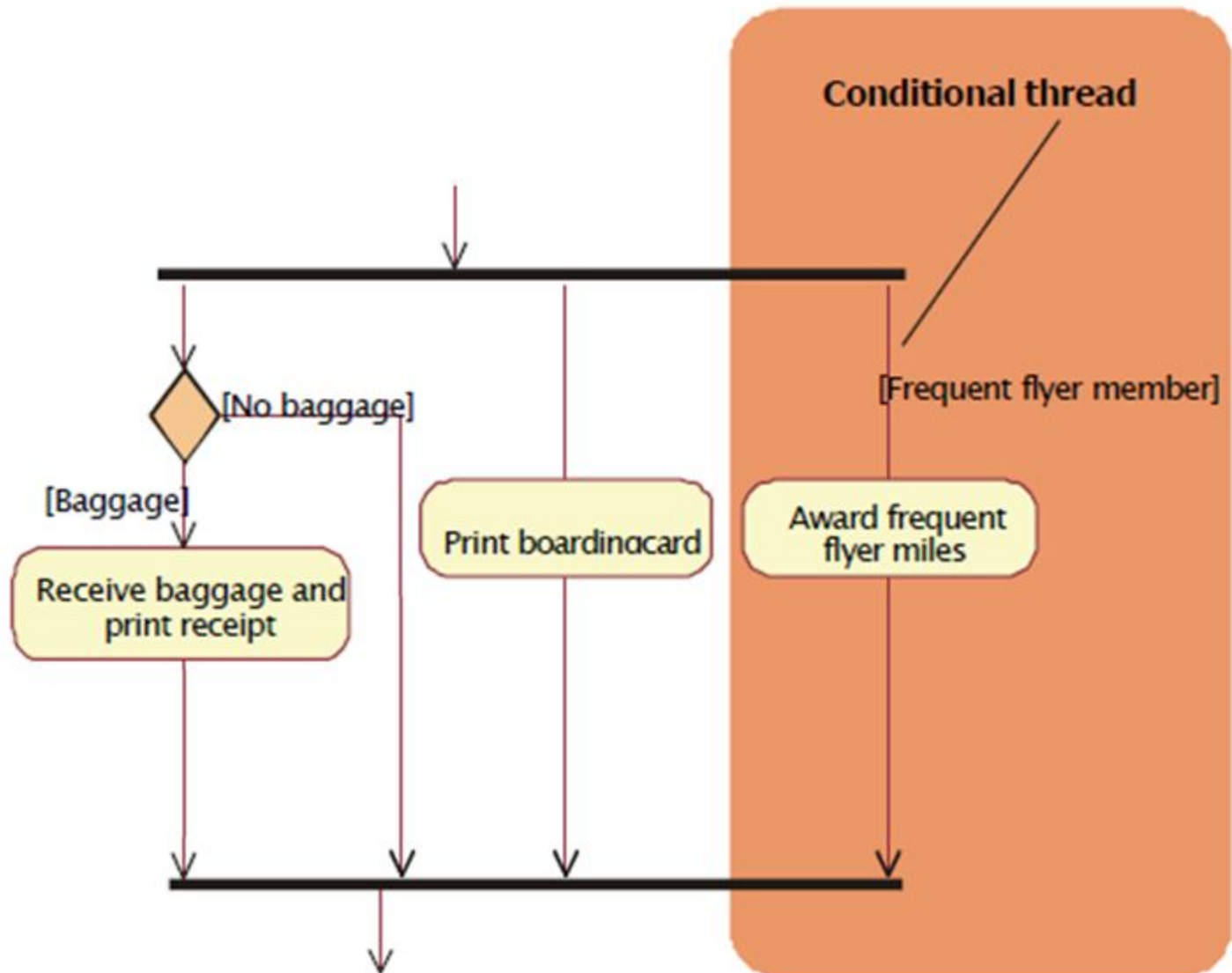
Advanced notations

- Conditional threads
- Nested activity
- Partitions

Conditional thread

- They are presented at synchronization bar
- A thread that will run in parallel only under certain conditions

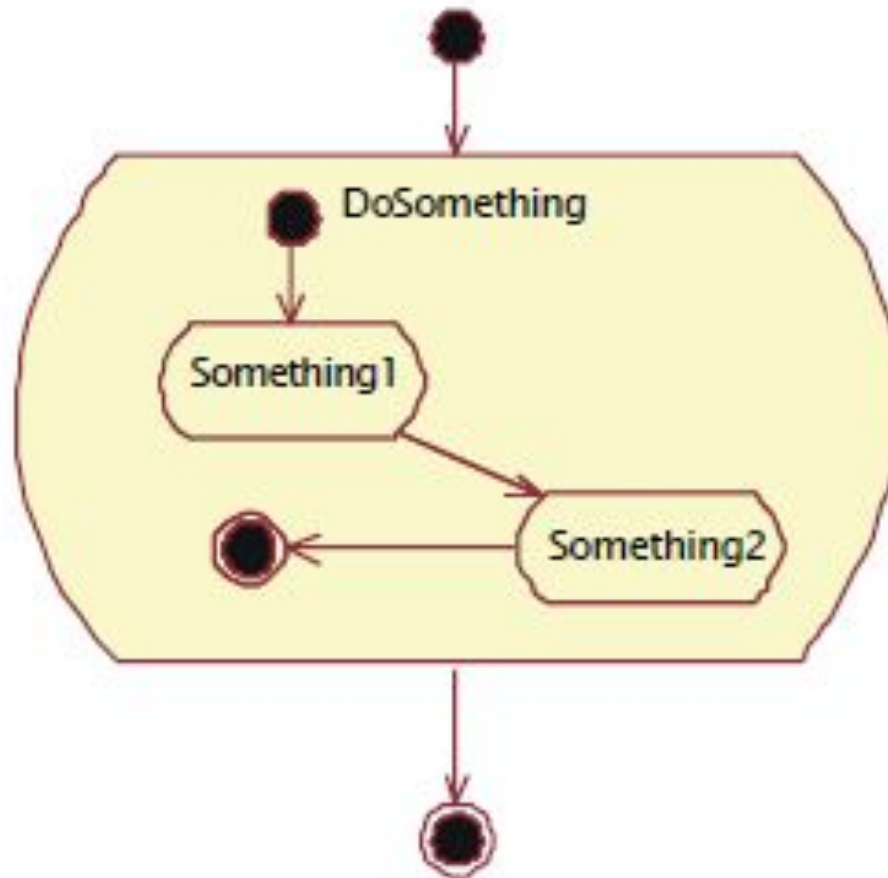
Conditional threads



Nested activity

- An activity state may reference another activity diagram which shows the internal structure of that activity state i.e having nested activity graphs
- Can be shown in the same diagram or refer to another diagram

Nested activity



Partitioning

- Content of activity diagram is organized into partitions using solid vertical lines
- It represents the activities under certain sections / individuals in the organization

Sales

Fulfillment

