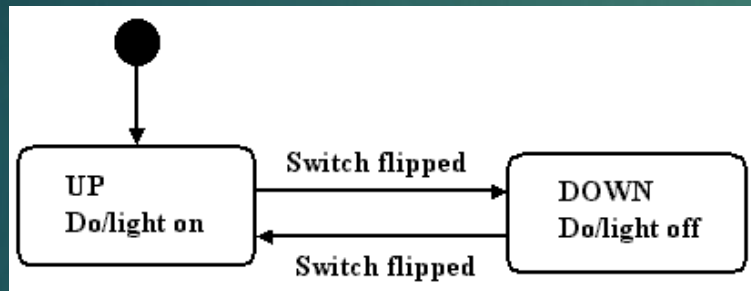# LAB 4

STATE DIAGRAMS

LAKSHYA TANDON

What is a state diagram?
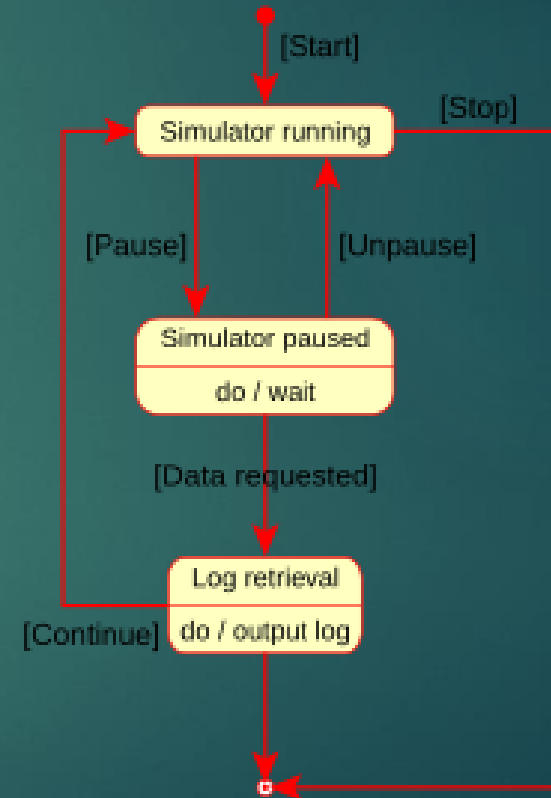
► A diagram used in computer science to describe the behaviour of systems.

► Has a finite number of states and transitions between them.

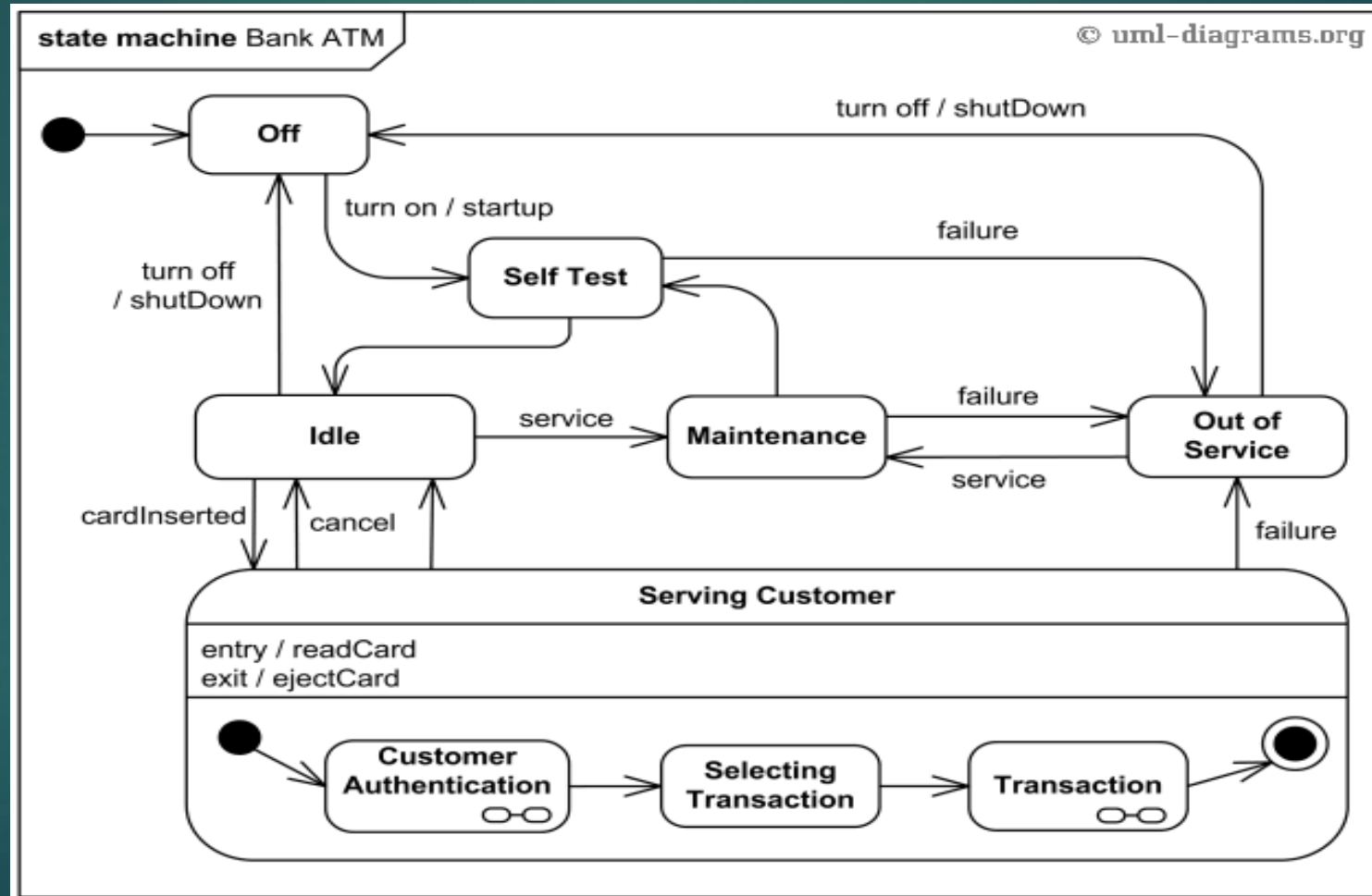► States represents all the possible states that a system can be in.

► In UML 2 this is called as a state machine diagram.

Notations in a State machine diagram

▶ Filled circle, representing to the initial state

▶ Hollow circle containing a smaller filled circle, indicating the final state (if any)

▶ Rounded rectangle, denoting a state. Top of the rectangle contains a name of the state. Can contain a horizontal line in the middle, below which the activities that are done in that state are indicated

▶ Arrow, denoting transition. The name of the event (if any) causing this transition labels the arrow body.

[Start]

[Stop]

Simulator running

[Pause]   [Unpause]

Simulator paused
do / wait

[Data requested]

Log retrieval
do / output log

[Continue]

State Machine Diagram Example – ATM Machine

You can continue with Lab exercise 4