CSC401 Lecture 2 Session 1 Summary

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Business Process Modeling

We make Rich Picture firstly then we move to Six Element Analysis. SEA is more detailed than Rich Picture. After that we go into further analysis with Business Process Modeling. For each Element, there should be separate models.

BPMN 2.0

We follow the BPMN standard and therefore the shapes of Flow Objects:

- Events (Circle)

- Activities (Rounded Rectangle)

- Gateways (Diamond)

Connectors:

- Sequence Flow (solid line with filled arrowhead)

- Message Flow (hollow dot, dashed line, hollow arrow)

- Association (dotted line, open arrowhead)

Artifacts:

- Data Objects

- Text area

- Groups

Swimlanes.

Activities are Rounded Rectangles.
Atomic *Tasks* do not need to be broken down. Activities that can be broken down to smaller tasks are called *Sub-Processes*.
Activities that are repeated, are called *Looped Task*. *each type of tasks have specific shapes keep in mind*
For tasks that will be performed by users, an icon of the user will be given o

the top-left corner.

Specialized tasks markers are in top-left. *Not Mandatory*

Events

- Start (simple circle)

- Intermediate (double circle)

- End (bold circle)

Event is something that* Happens*. Activities are done by some entity

- None (Undefined/Unknown)

- Message Based

- Timer Based

- Rule Based

- Multiple reasons based Triggers (Either OR)

- Link

Intermediate Events may have some more.

- Error

- Compensation

Sometimes a sequence of tasks can be interrupted. We represent it by placing an intermediate event in the boundary of a task.

For End Events, we usually don't think of them as triggers. We think as if something is given at the end.

Timer and Rule based products do not appear in End Events generally:

- Terminate

Gateways

- Exclusive (We can take one and only path) (X can be within the diamond)

    Data-based

    Event-based

- Inclusive (one or many paths can be taken)

- Complex (something else)

- Parallel (Multiple pathways are followed parallelly)

Exclusive, based on data

A hatch mark / means default path.

Inclusive Gates

Since we can take multiple paths, we always use two inclusive gates that will eventually merge the paths.

Parallel

They do not need a condition. All paths are taken simultaneously. Because of different paths, they will need to be converged so here too, we always need two of them.

Sequence flow

connects flow objects.

Message Flow

Passing of messages from one pool to another. Label must be present.

Swimlanes and part 2 of this topic will be in Lecture 3