

Activity Diagram

PB007 Software engineering I

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Week 04



Activity diagram represents flow of events and actions in an activity. It consists of different types of nodes that are connected with directed edges

The **Activities** usually represent:

- use cases
- operations and methods
- algorithms
- business processes



Basic elements



Action node



Initial node



Final node

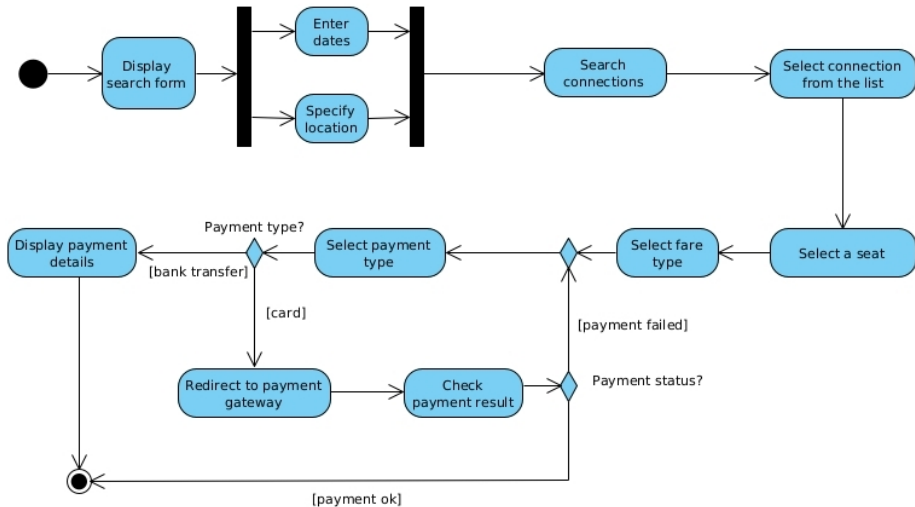


Decision/merge node



Fork/join node

Activity diagram - example



Swimlane (Activity partition) represents a logical grouping of related actions (e.g. based on actors, use cases, ...). In our case they usually represent individual uses cases connected with `<<include>>` or `<<extend>>`.

`<<include>>`

- Base and included use case have their own swimlanes.

`<<extend>>`

- If there is an extension point between *Action1* and *Action2*, a decision node is added after *Action1*, which allows transition either to the *Action2* or to the extending use case. Afterwards, the flow returns to the *Action2* via the merge node. Each of the use cases has its own swimlane.



- <http://sourcemaking.com/uml/modeling-business-systems/external-view/activity-diagrams>
- http://sce.uhcl.edu/helm/rationalunifiedprocess/process/modguide/md_bactd.htm



- Fix the problems from the previous week and finalize the textual specification of the chosen use cases.
- Select additional 2 use cases for which you will create the activity diagrams. They must be different from the use cases with the textual specification. The selection should be approved by the seminar tutor.
- Generate a **PDF report** and upload it to the homework vault (**Week 04**).



Rules for report submission

- 1 Submit the PDF report, not the VP source file and not an exported image.
- 2 PDF report must be created using the procedure shown on the seminars including the report settings.
- 3 The name of the PDF report file should be *lastname1-lastname2-lastname3* of the team members.
- 4 PDF report must contain all diagrams modelled until now.
- 5 PDF report must be uploaded to the homework vault by the specified deadline.
- 6 PDF report must be uploaded to the correct homework vault. The name of the homework vault is always specified on the slides.
- 7 Each team uploads only a single PDF report for the whole team.
- 8 Submitted diagrams must be clear and readable.
- 9 Submitted diagrams should not contain serious mistakes. At least, they should not contain mistakes mentioned in the *Catalogue of common mistakes*.



VP report settings

Generate PDF

Content | **Options** | Page Setup | Cover Page | Header/Footer | Document Info | Watermark

Options

- Generate table of contents ?
- Generate table of figures ?
- Generate diagrams ?
Image type : SVG
- Generate diagram type title
- Generate diagram properties ?
- Generate diagram summary ?
- Include extra details
- Suppress element with blank documentation in summary table
- Generate reference (file/URL) link ?
- Generate model elements/diagrams link ?
- Skip heading for empty model element section
- Convert multiline model heading to single line
- Show multiline model name
- Treat HTML content as HTML source
- Suppress details if duplicated
- Table cell keep together with page
- Wrap : Word wrap
- Shape type style : Icon ?
- RTF content appearance : Preserve formatting

Details

- Children
 - Model-based
 - Diagram-based
- Members
 - ERD Column Details
- Properties
- Project management properties
- Relationships
- Quality information
- References
- References documentation
- Sub-diagrams
 - Include sub-diagram details
- Comments
 - Sort by Date/Time: Descending
- Tagged values
- ORM Class Details
- Use Case Details

Anti-aliasing

- Graphics
- Text

Font

Font: Unspecified ...

Reset | Reset to Default | Set as Default | Generate | Cancel | Apply | Help