

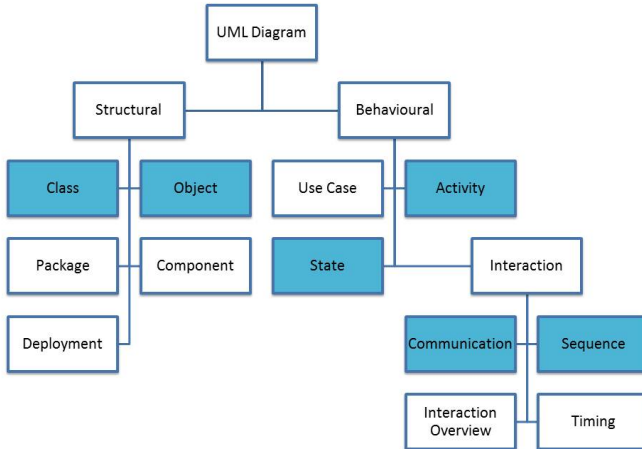
# UML Diagrams

## Activity Diagram

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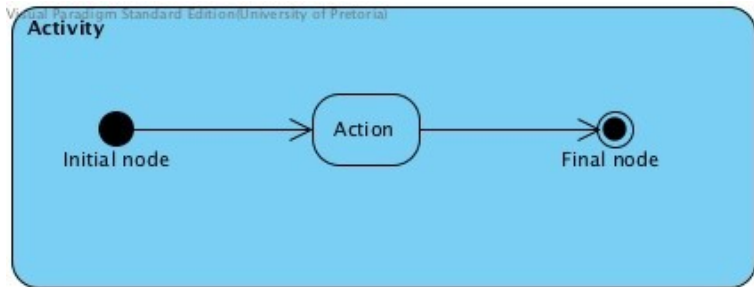
## Activity Diagrams:

- are often used to model business processes.
- model complex workflows by operations on objects.
- describe what actions need to take place and when they should occur.
- describe how activities are coordinated to provide a service.

## Difference between state diagrams and activity diagram

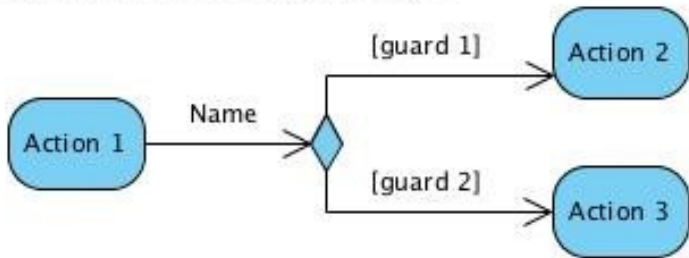
- **State diagrams** are used to model state-dependent behaviour and conditions for transitions between states
- **Activity diagrams** are used to model the flow of actions and the order in which the actions take place.

## Start, action and end nodes

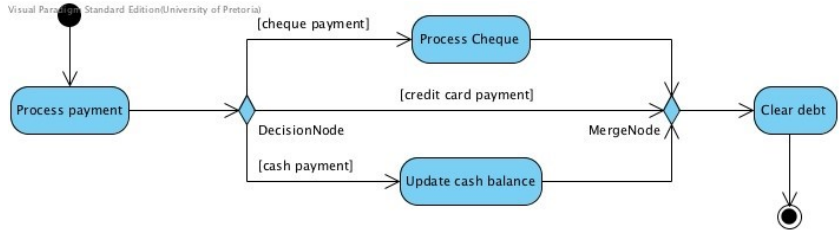


## Activity edge and [guard condition]

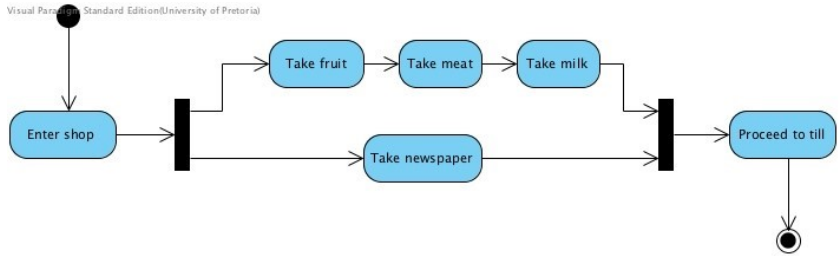
Visual Paradigm Standard Edition(University of Pretoria)



## Alternate flows: Model of a payment showing the use of decision and merge nodes

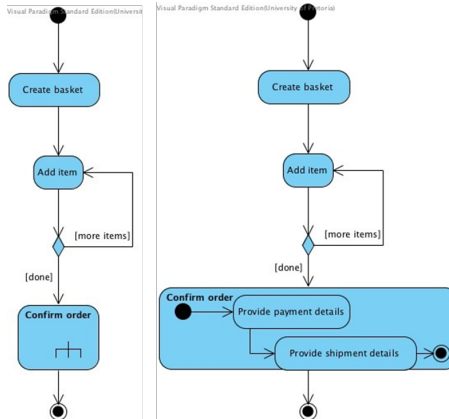


# Parallel flows: Shopping experience by a married couple

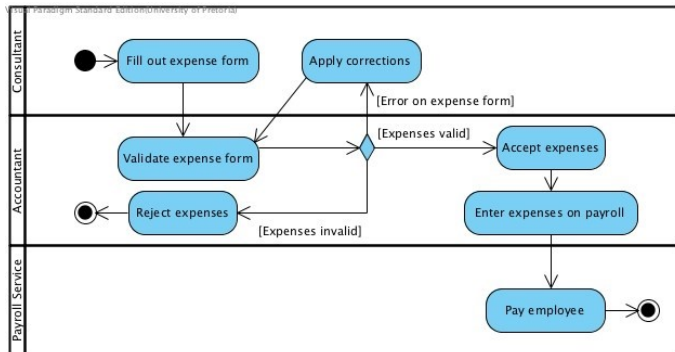




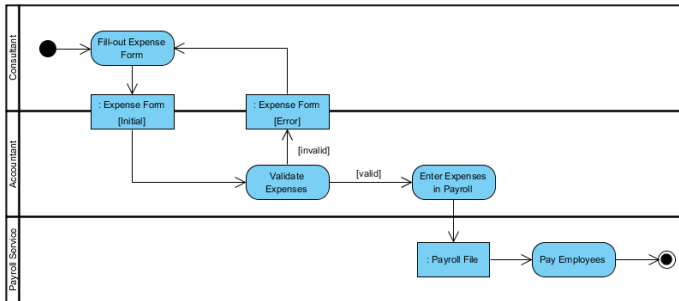
# Composite activities



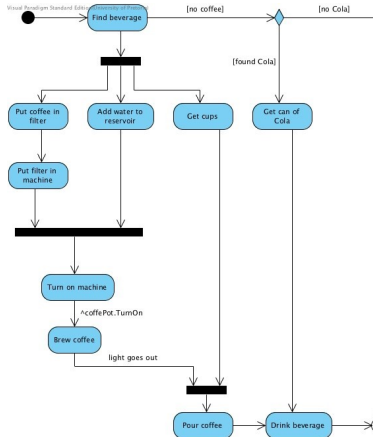
*Swimlanes* are used to convey which class is responsible for a given activity



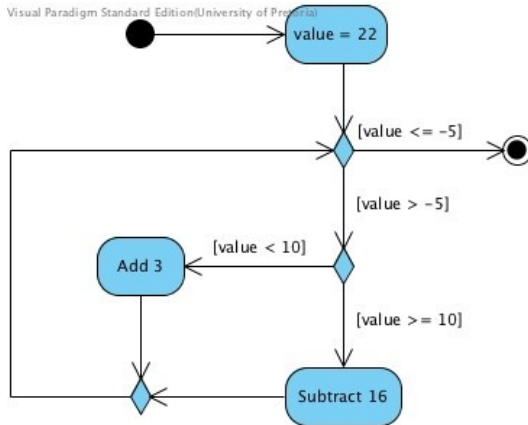
*Swimlanes* showing the objects involved in the set object flows.



## Example of finding and drinking a beverage



# An activity diagram containing a loop



# Implementing code for an activity diagram

## Instructions:

- Consider the code
- Translate the code into an activity diagram