

11.3-OLD Graph example

Description

In this section, we show a further example on using virtual class attributes from the domain of graphs.

Quite incomplete

We should make displayable an orthogonal property of graph, men måske ikke nødvendig for eksemplet?

But Network should be completed

Beta book:

```

class Graph:
  class Node:< ...
  class Link:< ...
  root: ref Node
  connect:< ...
class DisplayableGraph: Graph
  class DisplaySymbol:< ??
  class DisplayLine:< ??
  class Node ::< { dispSymbol: ref DisplaySymbol }
  class Link ::< { dispLine: ref DisplayLine }
  connect ::< ...
  display:< ...
class TravelingSalesmanGraph: Graph
  class Node ::< { name: ref text }
  class Link ::< { distance: var integer }
  connect ::< { ... }

```

Pipe graph

Internet: Nodes/Servere, links, ..., kabler, WIFI

```

class Network: Graph
  class Node::< what do we have in a node? Mapping: host -> link
    -- receivePacket, sendPacket, ...
    ...
  class Link::< -- capacity/speed of connection
    ...

```

Page 5.x: -- almost the same as TravelingSalesmanGraph above

```

class Graph:
  class Node:<
    firstEdge: ref Edge
    insertEdgeTo(to: ref Node)-> ref Edge:
      ...
    display:< ...

  class Edge:<
    from, to: ref Node
    nextEdge: ref Edge;
    deleteMe:<
    display:<
      inner(display)

class RoadAndCityGraph: Graph
  class Node::<
    cityName: ref String
    ...
  display::
    ... name of the city

  firstEdge.roadLength

```

```
class Edge::<
  roadLength: var Integer
  ...
  display::
    ... length of the road

  from.cityName
```