PlantUML

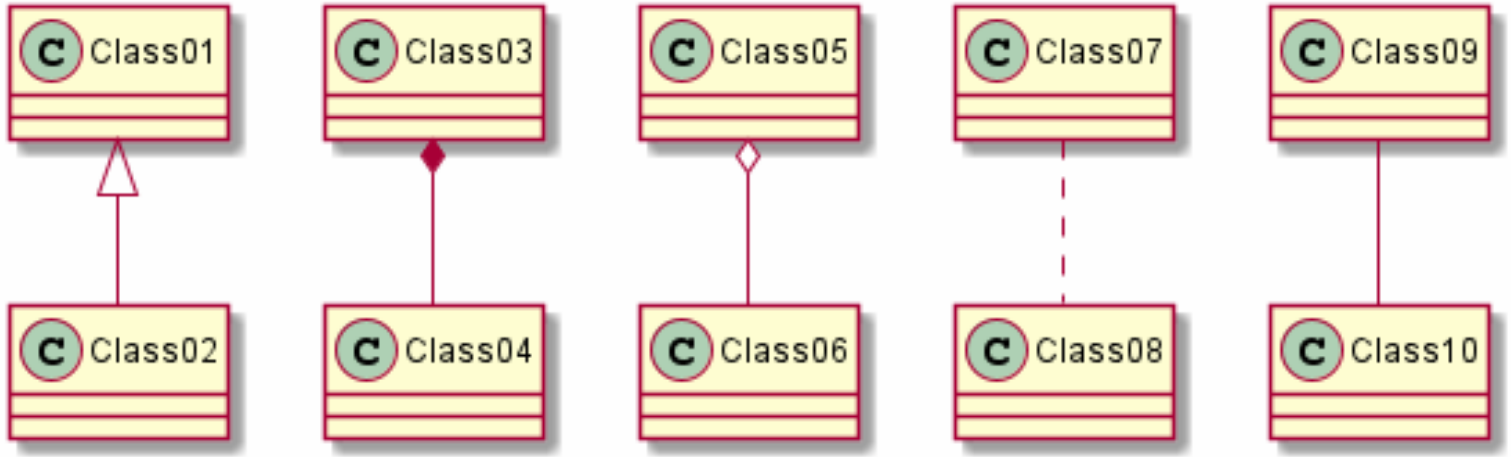
ตอนที่ 1 แนะนำ Plantuml

FAQ-Fact

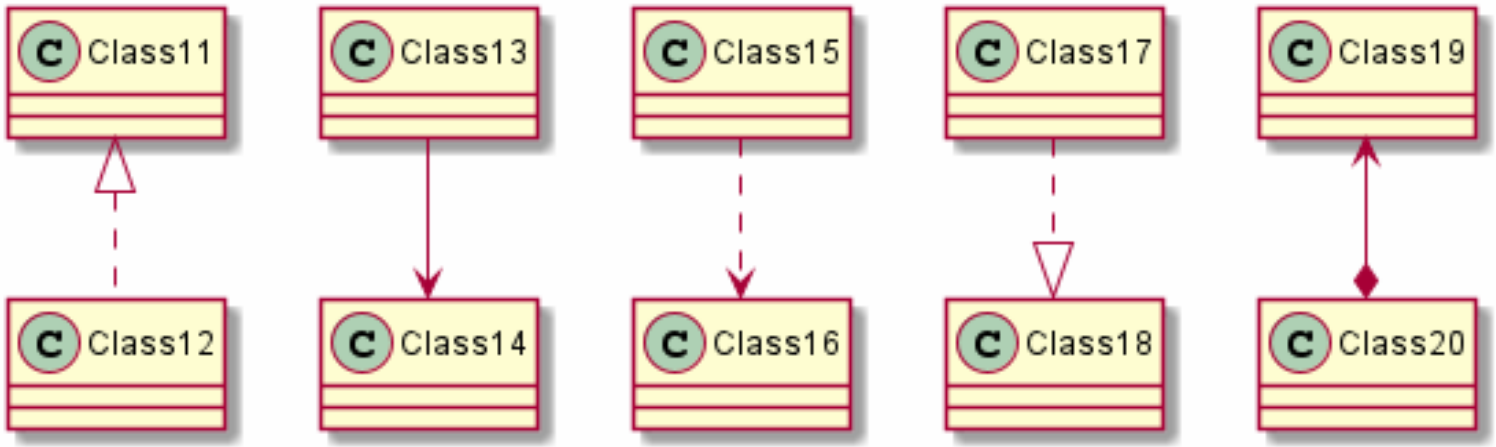
- PlantUML เป็นเครื่องมือสำหรับวาด UML diagrams โดยการใช้ภาษาอย่างง่าย (human readable)
- ในมุมมองของ CASE Tool (Computer-aided Software Engineering) นั้น PlantUML เหมาะที่จะเป็น drawing tool มากกว่า modeling tool.

Class Diagram

```
@startuml
Class01 <|-- Class02
Class03 *-- Class04
Class05 o-- Class06
Class07 .. Class08
Class09 -- Class10
@enduml
```

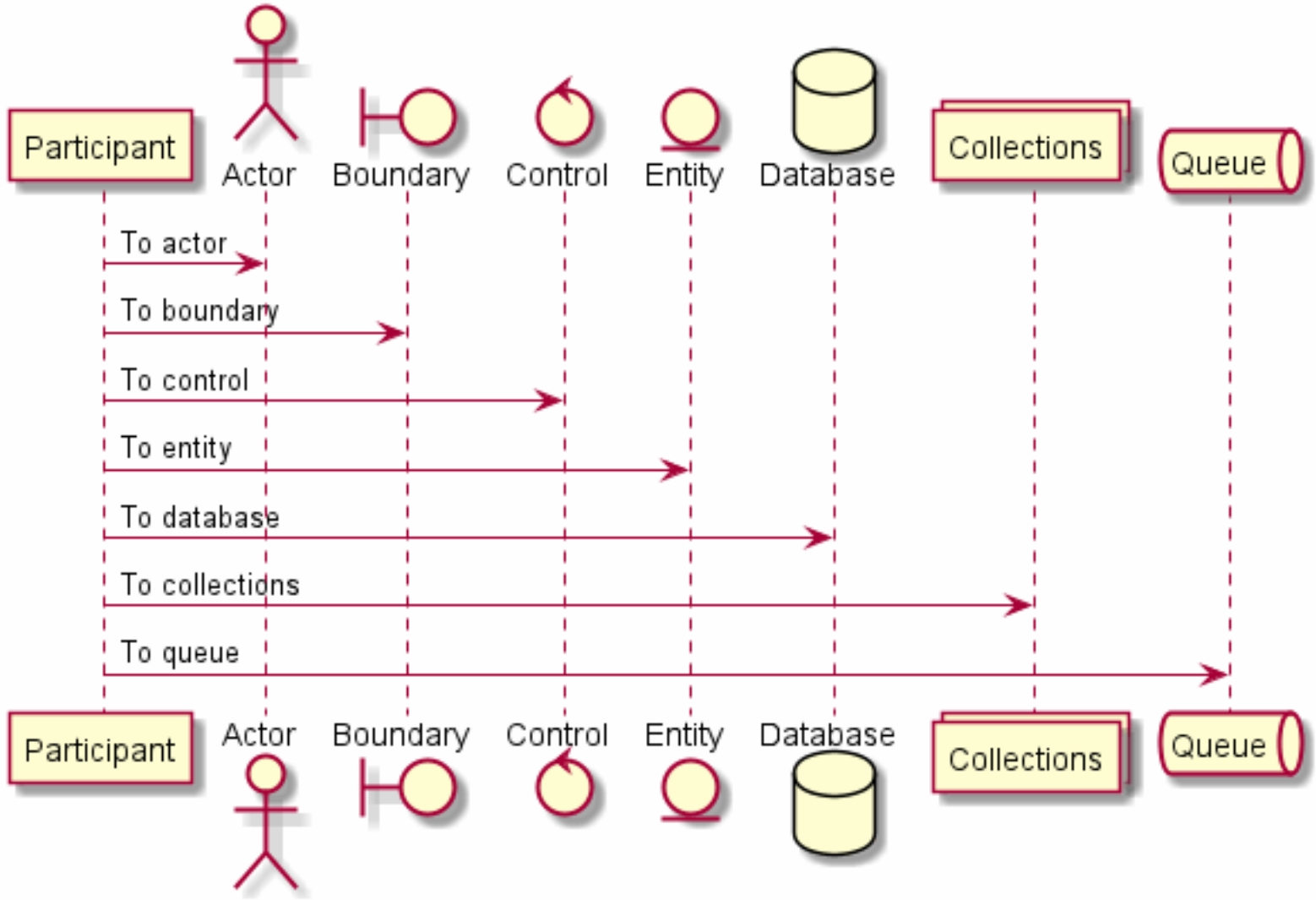



```
@startuml
Class11 <|.. Class12
Class13 --> Class14
Class15 ..> Class16
Class17 ..|> Class18
Class19 <--* Class20
@enduml
```



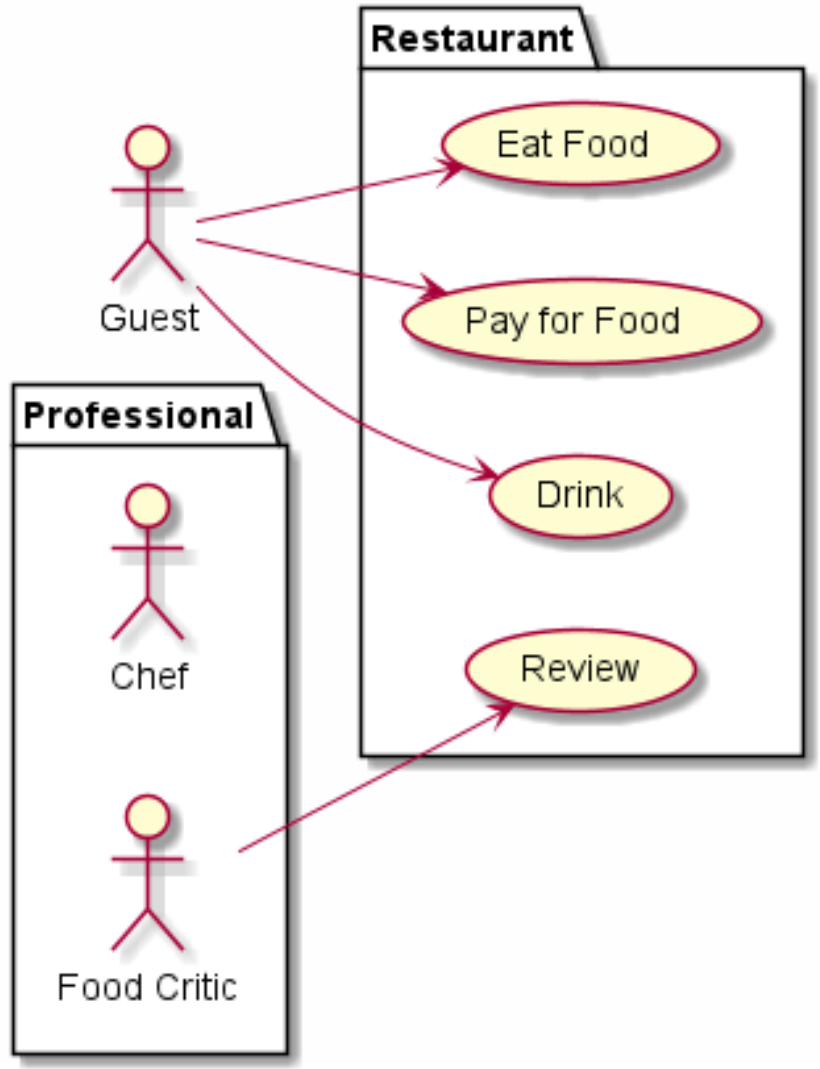
Sequence Diagram

```
@startuml
participant Participant as Foo
actor       Actor       as Foo1
boundary    Boundary    as Foo2
control     Control     as Foo3
entity      Entity      as Foo4
database    Database    as Foo5
collections Collections as Foo6
queue       Queue       as Foo7
Foo -> Foo1 : To actor
Foo -> Foo2 : To boundary
Foo -> Foo3 : To control
Foo -> Foo4 : To entity
Foo -> Foo5 : To database
Foo -> Foo6 : To collections
Foo -> Foo7: To queue
@enduml
```

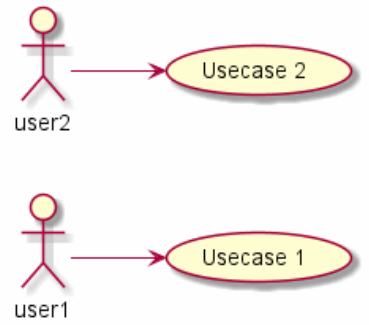


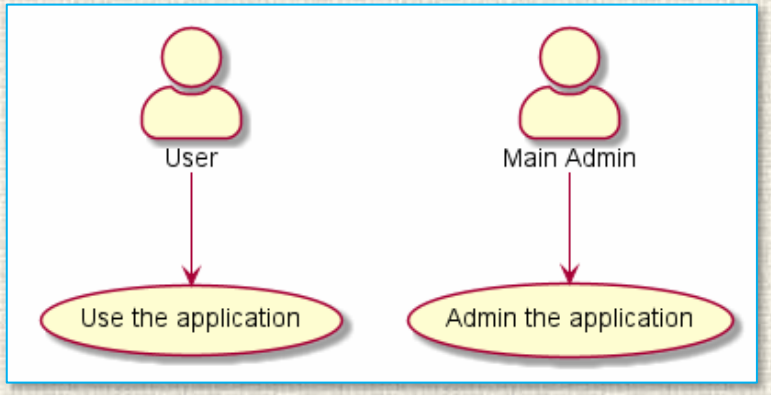
Usecase Diagram

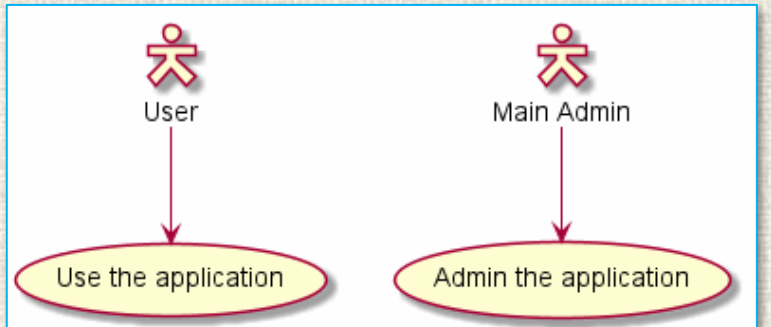
```
@startuml
left to right direction
actor Guest as g
package Professional {
  actor Chef as c
  actor "Food Critic" as fc
}
package Restaurant {
  usecase "Eat Food" as UC1
  usecase "Pay for Food" as UC2
  usecase "Drink" as UC3
  usecase "Review" as UC4
}
fc --> UC4
g --> UC1
g --> UC2
g --> UC3
@enduml
```




```
@startuml

left to right direction
user1 --> (Usecase 1)
user2 --> (Usecase 2)

@enduml
```

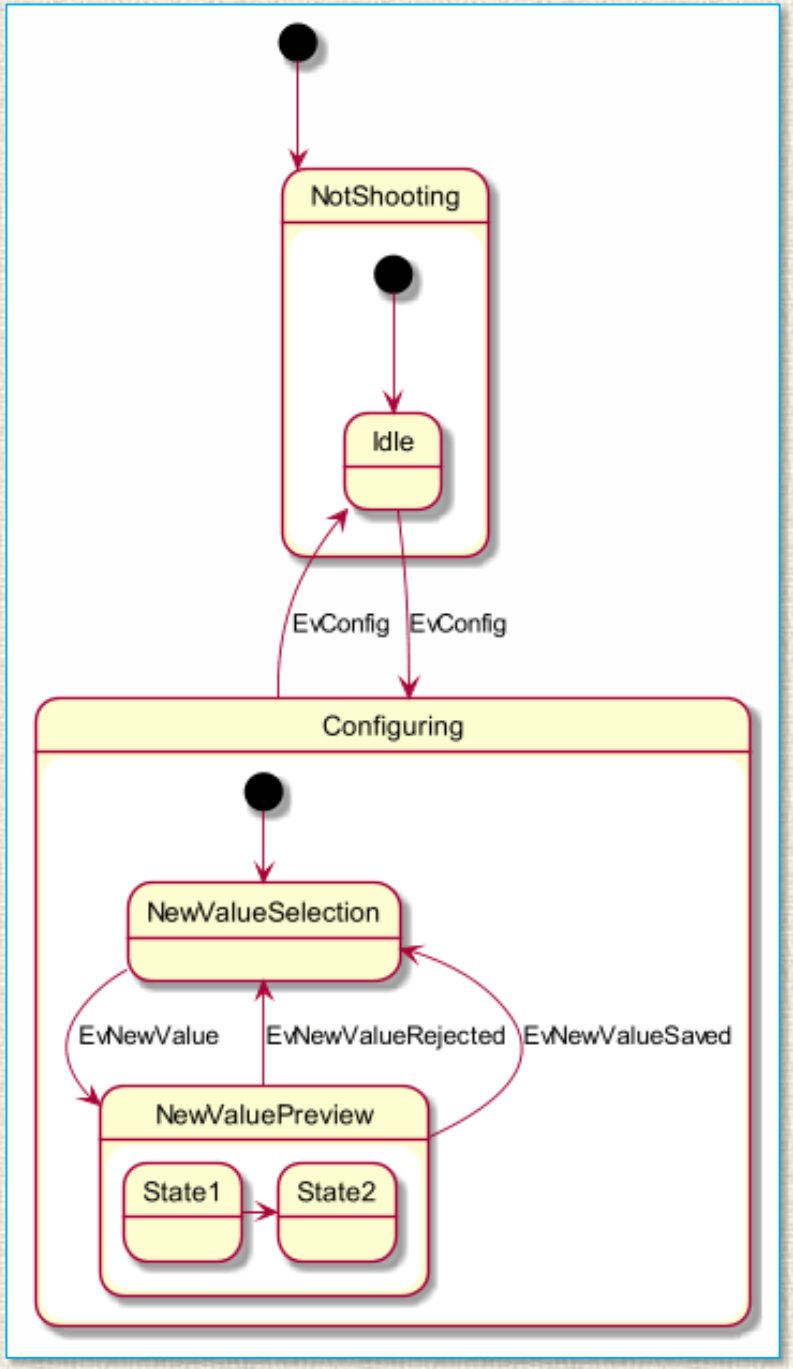






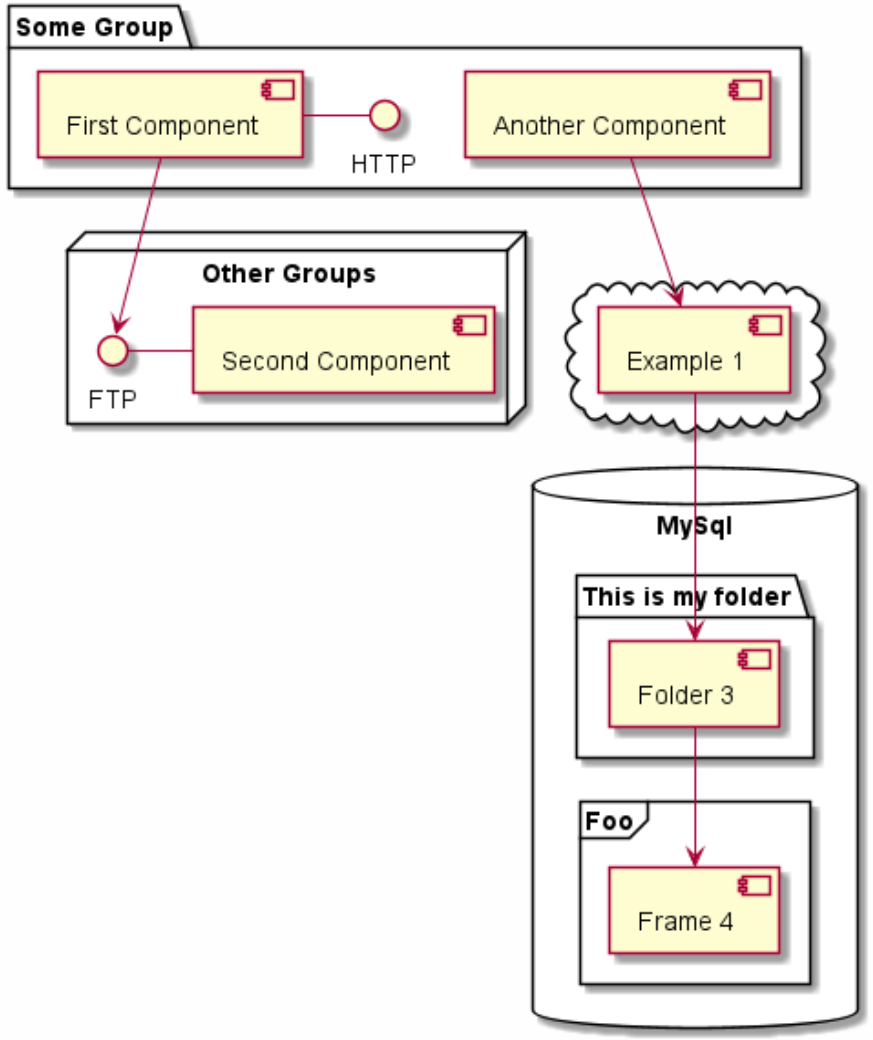
State Diagram

```
@startuml
scale 350 width
[*] --> NotShooting

state NotShooting {
  [*] --> Idle
  Idle --> Configuring : EvConfig
  Configuring --> Idle : EvConfig
}

state Configuring {
  [*] --> NewValueSelection
  NewValueSelection --> NewValuePreview : EvNewValue
  NewValuePreview --> NewValueSelection : EvNewValueRejected
  NewValuePreview --> NewValueSelection : EvNewValueSaved

  state NewValuePreview {
     State1 -> State2
  }

}
@enduml
```



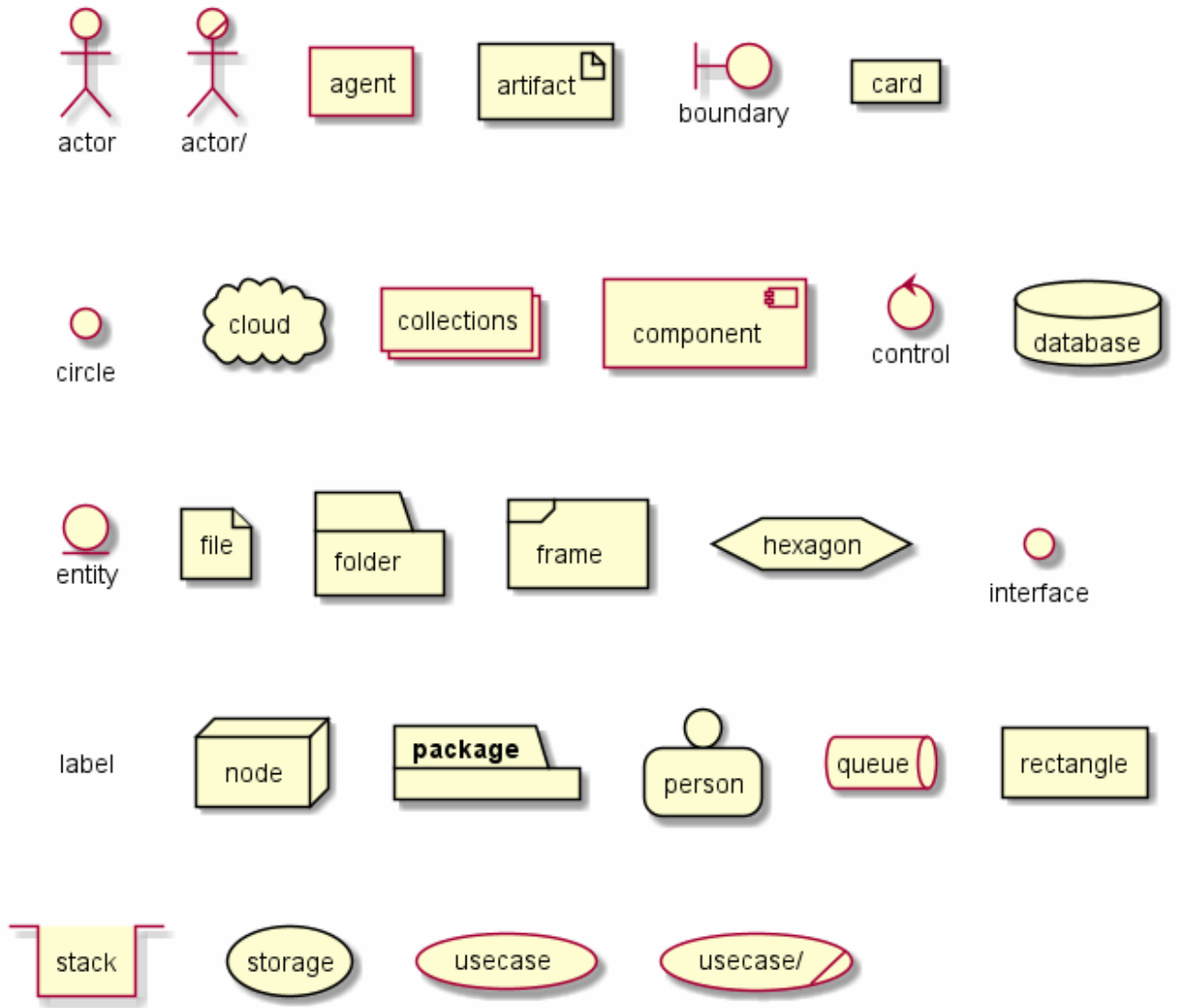
Component Diagram

```
@startuml

package "Some Group" {
  HTTP - [First Component]
  [Another Component]
}

node "Other Groups" {
  FTP - [Second Component]
  [First Component] --> FTP
}

cloud {
  [Example 1]
}


database "MySql" {
  folder "This is my folder" {
    [Folder 3]
  }
  frame "Foo" {
    [Frame 4]
  }
}


[Another Component] --> [Example 1]
[Example 1] --> [Folder 3]
[Folder 3] --> [Frame 4]

@enduml
```



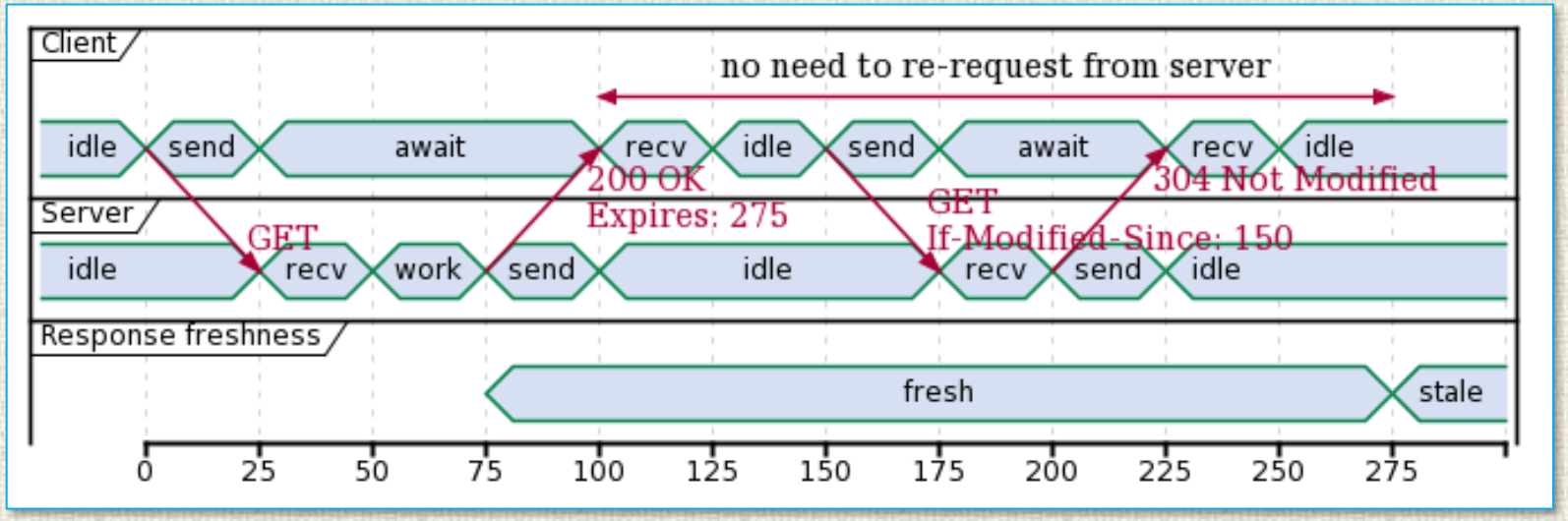
Deployment Diagram

```
@startuml
actor actor
actor/ "actor/"
agent agent
artifact artifact
boundary boundary
card card
circle circle
cloud cloud
collections collections
component component
control control
database database
entity entity
file file
folder folder
frame frame
hexagon hexagon
interface interface
label label
node node
package package
person person
queue queue
rectangle rectangle
stack stack
storage storage
usecase usecase
usecase/ "usecase/"
@enduml
```



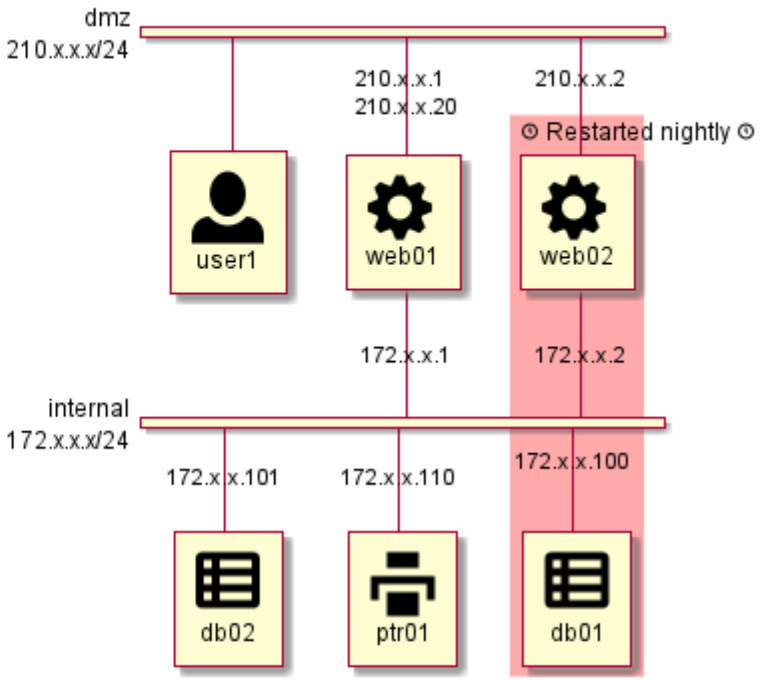
Timing Diagram

```
@startuml
concise "Client" as Client
concise "Server" as Server
concise "Response freshness" as Cache

Server is idle
Client is idle

@Client
0 is send
Client -> Server@+25 : GET
+25 is await
+75 is recv
+25 is idle
+25 is send
Client -> Server@+25 : GET\nIf-Modified-Since: 150
+25 is await
+50 is recv
+25 is idle
@100 <-> @275 : no need to re-request from server

@Server
25 is recv
+25 is work
+25 is send
Server -> Client@+25 : 200 OK\nExpires: 275
+25 is idle
+75 is recv
+25 is send
Server -> Client@+25 : 304 Not Modified
+25 is idle

@Cache
75 is fresh
+200 is stale
@enduml
```



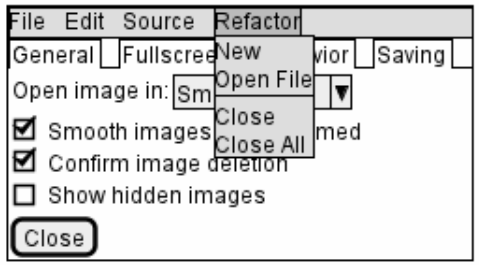
Network diagram

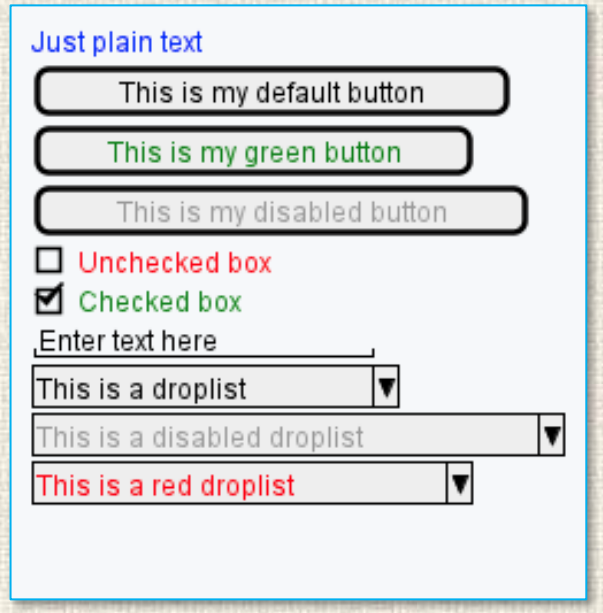
```
@startuml

nwdiag {
  group nightly {
    color = "#FFAAAA";
    description = "<&clock> Restarted nightly <&clock>";
    web02;
    db01;
  }
  network dmz {
      address = "210.x.x.x/24"

      user [description = "<&person*4.5>\n user1"];
      // set multiple addresses (using comma)
      web01 [address = "210.x.x.1, 210.x.x.20",  description = "<&cog*4>\nweb01"]
      web02 [address = "210.x.x.2",  description = "<&cog*4>\nweb02"];

  }
  network internal {
      address = "172.x.x.x/24";

      web01 [address = "172.x.x.1"];
      web02 [address = "172.x.x.2"];
      db01 [address = "172.x.x.100",  description = "<&spreadsheet*4>\n db01"];
      db02 [address = "172.x.x.101",  description = "<&spreadsheet*4>\n db02"];
      ptr  [address = "172.x.x.110",  description = "<&print*4>\n ptr01"];
  }
}
@enduml
```



Salt (Wireframe)

```
@startsalt
{+
{* File | Edit | Source | Refactor
 Refactor | New | Open File | - | Close | Close All }
{/ General | Fullscreen | Behavior | Saving }
{
{ Open image in: | ^Smart Mode^ }
[X] Smooth images when zoomed
[X] Confirm image deletion
[ ] Show hidden images
}
[Close]
}
@endsalt
```





Creole

This is **bold**
This is *italics*
This is monospaced
This is ~~stricken-out~~
This is underlined
This is wave-underlined

This is ∞ long
This is a ᯤ icon
Use image : (Cannot decode: http://plantuml.com/logo3.png)

HTML Creole

This is **bold**
This is *italics*
This is monospaced
This is ~~stroked~~
This is underlined
This is waved
This is ~~stroked~~
This is underlined
This is waved

This is Blue
This is Orange background
This is big

Creole line

You can have horizontal line

Or double line

Or strong line

Or dotted line

Or dotted title
and title...

Or double-line title

Or single-line title
Enjoy!

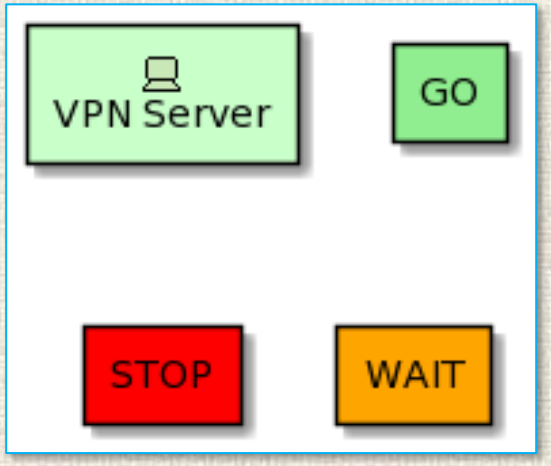
Creole list item

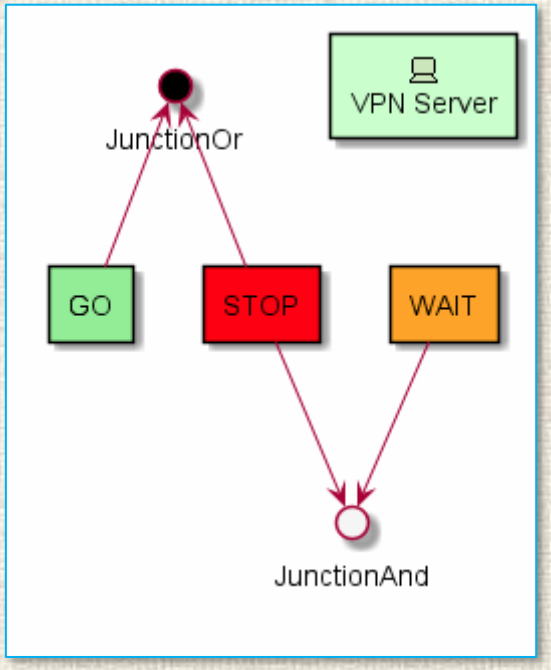
test list 1
- Bullet list
- Second item
  - Sub item
    - Sub sub item
- Third item

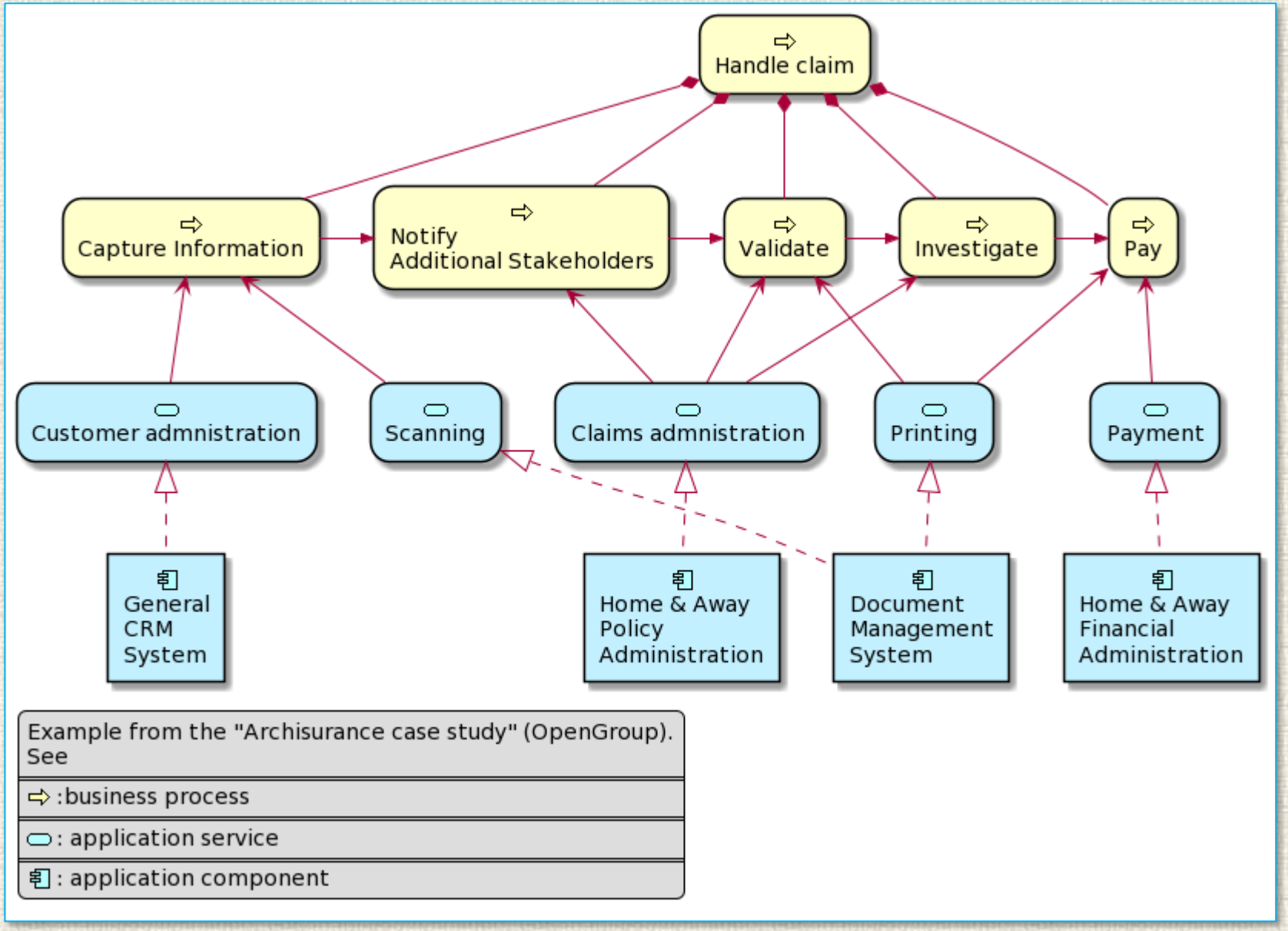
test list 2
1. Numbered list
1. Second item
   1. Sub item
   1. Another sub item
1. Third item

Mix on salt

Archimate Diagram

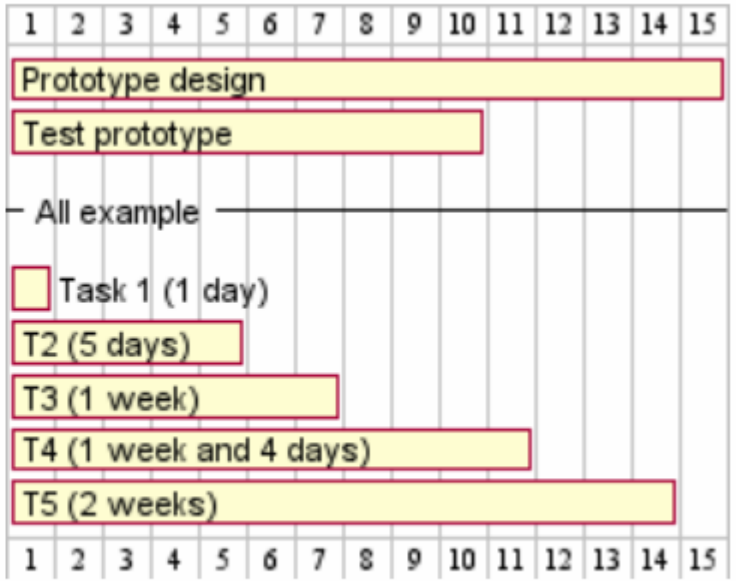


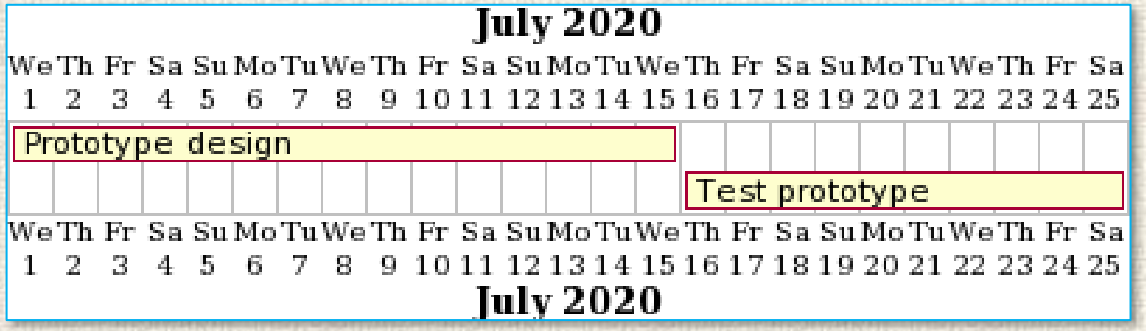


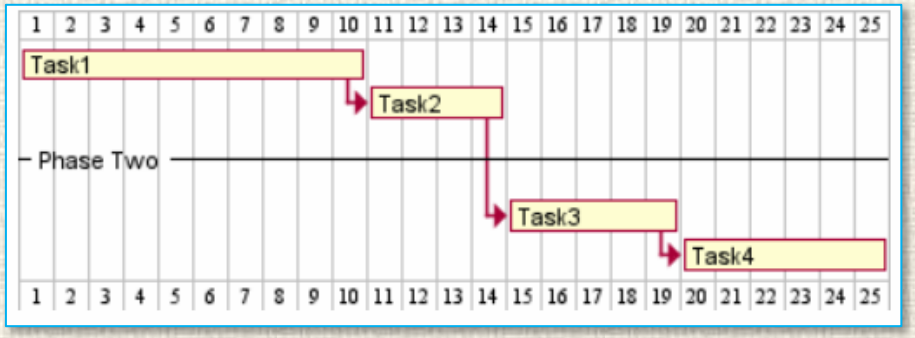


Gantt Diagram

```
@startgantt
[Prototype design] lasts 15 days
[Test prototype] lasts 10 days
-- All example --
[Task 1 (1 day)] lasts 1 day
[T2 (5 days)] lasts 5 days
[T3 (1 week)] lasts 1 week
[T4 (1 week and 4 days)] lasts 1 week and 4 days
[T5 (2 weeks)] lasts 2 weeks
@endgantt
```

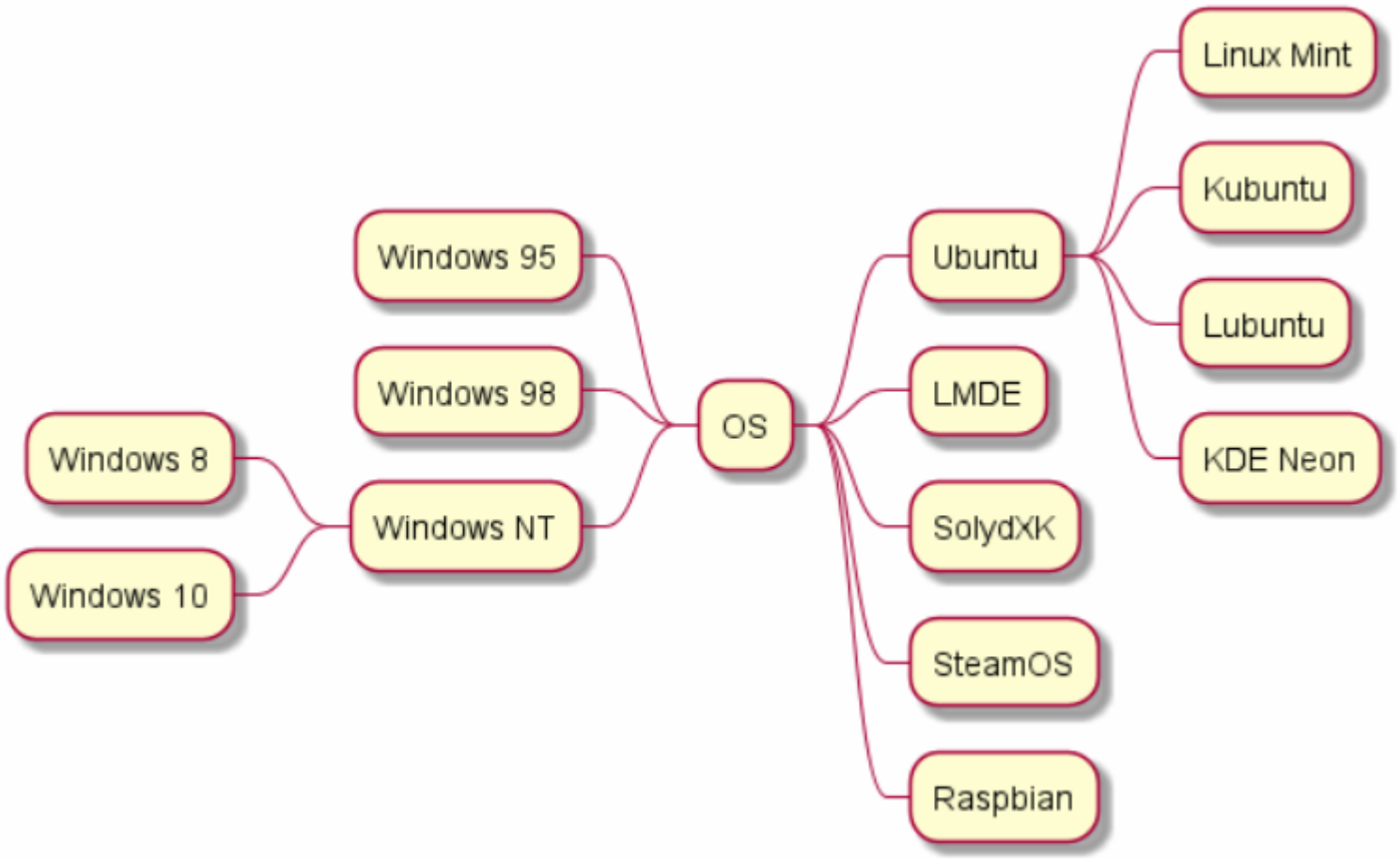


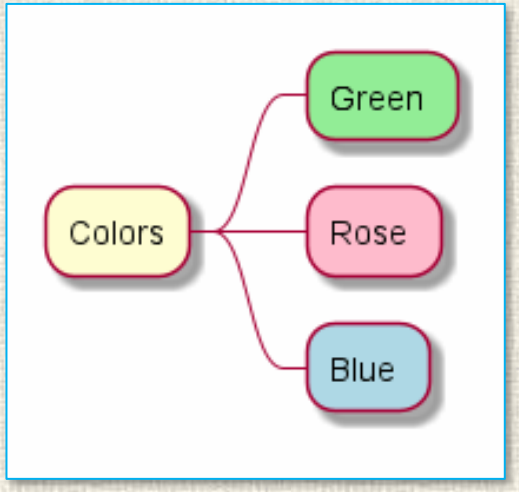




MindMap

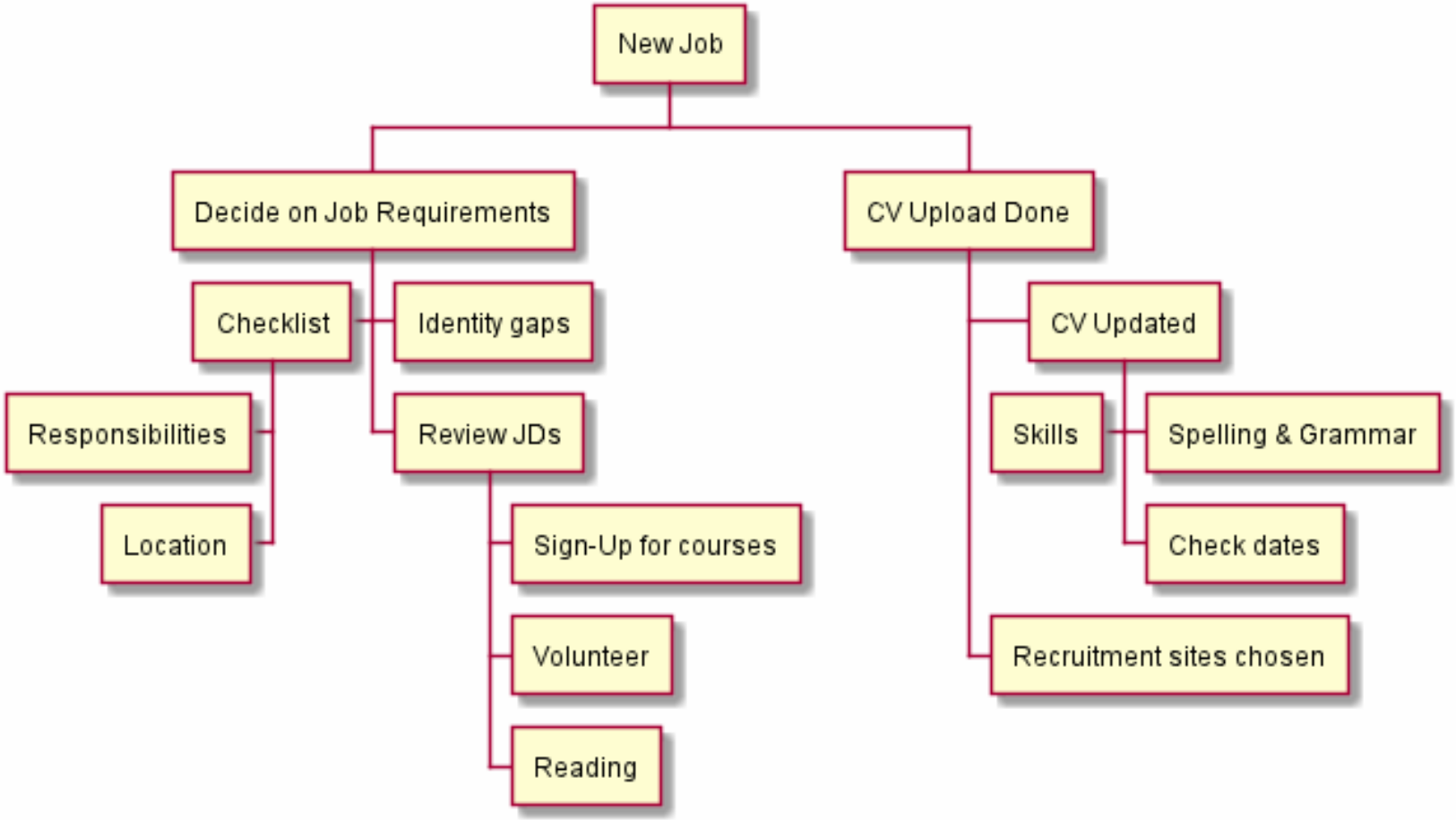
```
@startmindmap
+ OS
++ Ubuntu
+++ Linux Mint
+++ Kubuntu
+++ Lubuntu
+++ KDE Neon
++ LMDE
++ SolydXK
++ SteamOS
++ Raspbian
-- Windows 95
-- Windows 98
-- Windows NT
--- Windows 8
--- Windows 10
@endmindmap
```





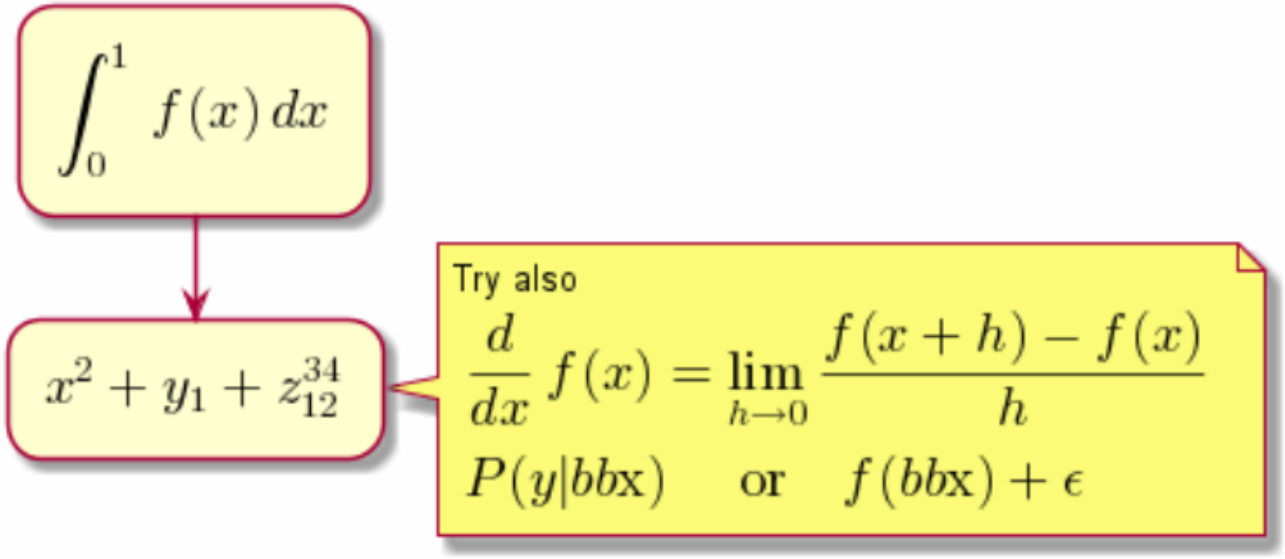
Work Breakdown Structure (WBS)

```
@startwbs
+ New Job
++ Decide on Job Requirements
+++ Identity gaps
+++ Review JDs
++++ Sign-Up for courses
++++ Volunteer
++++ Reading
++- Checklist
+++- Responsibilities
+++- Location
++ CV Upload Done
+++ CV Updated
++++ Spelling & Grammar
++++ Check dates
---- Skills
+++ Recruitment sites chosen
@endwbs
```



Mathematic

```
@startuml
:<math>int_0^1f(x)dx</math>;
:<math>x^2+y_1+z_12^34</math>;
note right
Try also
<math>d/dxf(x)=lim_(h->0)(f(x+h)-f(x))/h</math>
<math>P(y|bb"x") or f(bb"x")+epsilon</math>
end note
@enduml
```



เว็บไซต์ที่เกี่ยวข้องกับ PlantUML

เว็บไซต์

https://plantuml.com/

ทดลองเขียนด้วย online server

http://www.plantuml.com/plantuml/

Source code (github)

https://github.com/plantuml/plantuml