

Project Scope

Subgroup: CD & JSON

Goals.

- Test cases for existing CD4A to PlantUML Pretty Printer
- Create JSON to PlantUML Pretty Printer
- CLI Library for JSON Pretty Printer

PlantUML

Open-source tool providing a DSL to create diagrams from various formats such as

- UML (e.g. Class Diagrams, Sequence Diagrams, Activity Diagrams, etc.)
- Gantt charts
- JSON and YAML

Diagram specifications using the PlantUML DSL

Exported to formats like PNG or SVG possible

Some styling attributes in recent versions

Written in Java

Can be incorporated as extensions or add-ons into various applications such as

- IDEs (Visual Studio Code, IntelliJ, etc.)
- Doxygen
- Document Editors (MS Word, Google Docs, LibreOffice)

PlantUML online editor: [PlantText.com](https://planttext.com)

PlantUML Pretty Printer for CD4A

Original Task

- Create extensive test cases

Actual Task:

- Fix existing Pretty Printer
- Update PlantUMLUtil
- Create extensive test cases

PlantUML Pretty Printer for JSON

Done

- Created Pretty Printer in visualization style of institute
- Created according PlantUMLUtil

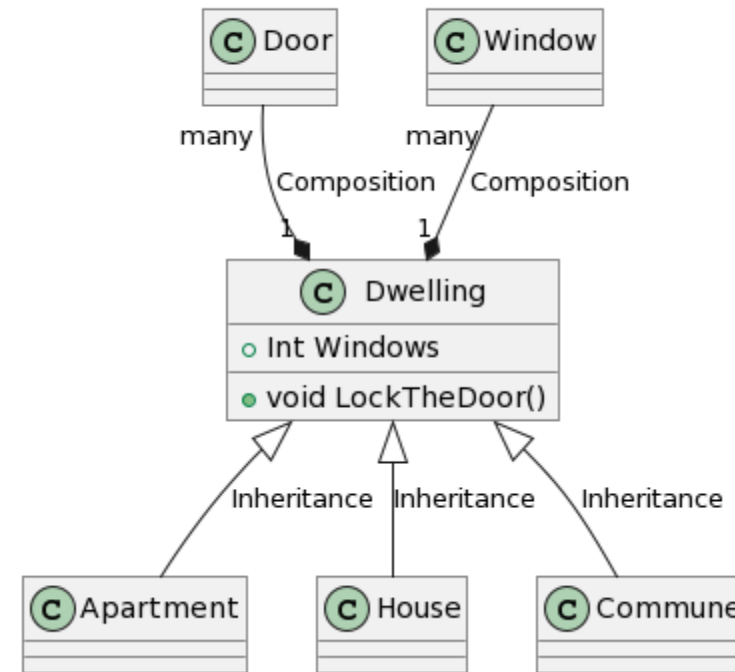
To-Do

- Create CLI library

PlantUML Class Diagram

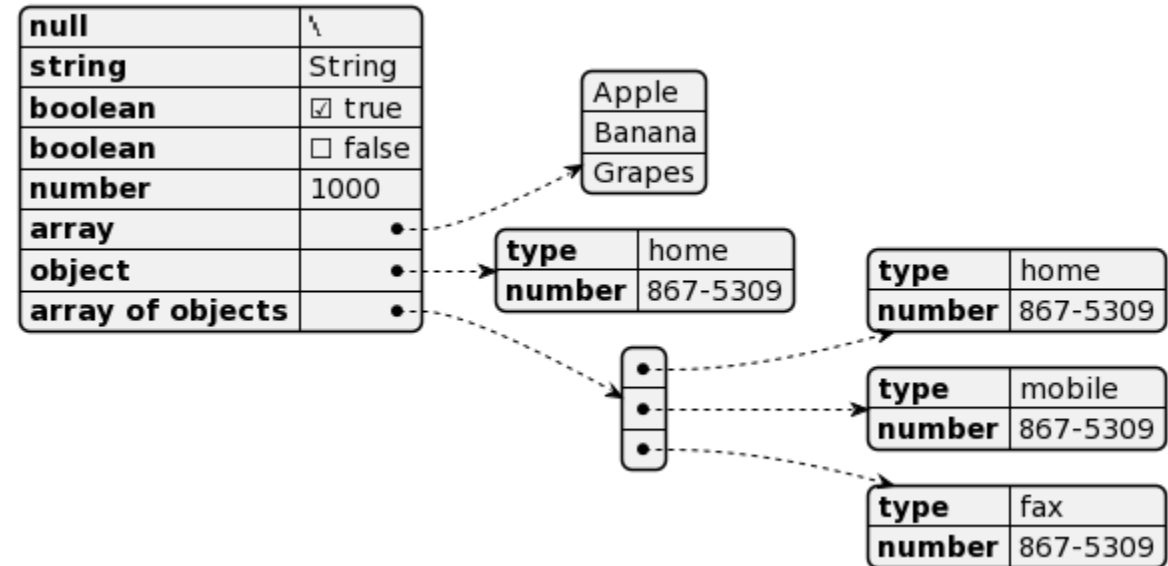
```
1 @startuml
2 <style>
3 classDiagram {
4   class {
5     ..RoundCorner 0
6   }
7 }
8 </style>
9
10 title Relationships - Class Diagram
11
12
13 class Dwelling {
14   ..+Int Windows
15   ..+void LockTheDoor()
16 }
17
18 class Apartment
19 class House
20 class Commune
21 class Window
22 class Door
23
24 Dwelling <|-- Apartment : Inheritance
25 Dwelling <|-- Commune : Inheritance
26 Dwelling <|-- House : Inheritance
27 Dwelling "1" *-- "many" Window : Composition
28 Dwelling "1" *-- "many" Door : Composition
29
30 @enduml
```

Relationships - Class Diagram



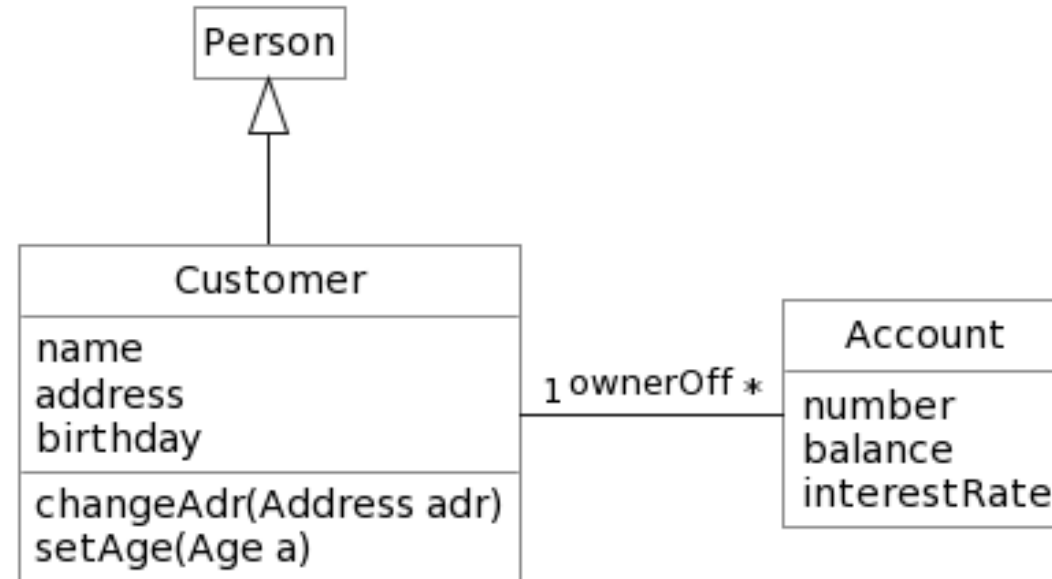
PlantUML JSON

```
1 @startjson
2 {
3   .."null"::null,
4   .."string"::"String",
5   .."boolean"::true,
6   .."boolean"::false,
7   .."number"::1000,
8   .."array"::["Apple", "Banana", "Grapes"],
9   .."object"::{"type": "home", "number": "867-5309"},
10  .."array of objects"::
11  [
12    {"type": "home", "number": "867-5309"},
13    {"type": "mobile", "number": "867-5309"},
14    {"type": "fax", "number": "867-5309"}
15  ]
16 }
17 @endjson
```



PlantUML i3 Class Diagram Style

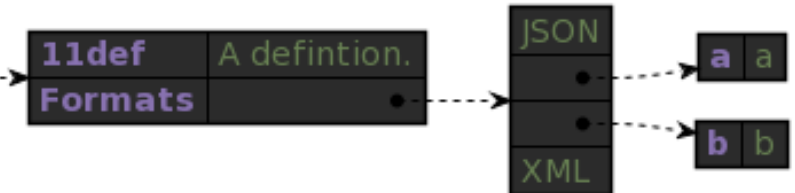
```
1 @startuml
2 <style>
3   classDiagram {
4     class {
5       BackgroundColor White
6       RoundCorner 0
8     }
9   }
10 </style>
11 hide circle
12 hide empty-members
13 class Customer {
14   name
15   address
16   birthday
17   changeAdr(Address adr)
18   setAge(Age a)
19 }
20
21 class Account {
22   number
23   balance
24   interestRate
25 }
26
27 class Person
28
29 Customer "1" -- "*" Account : ownerOff
30 Customer --|> Person
31
32 @enduml
```



PlantUML IntelliJ JSON Style

```
1 @startjson
2 <style>
3 jsonDiagram {
4   node {
5     BackgroundColor #2b2b2b
6     RoundCorner 0
7   }
8 }
9 </style>
10 {
11   "<color:#8872b0>ID": "<color:#688153>LOTR",
12   "<color:#8872b0>pages": "<color:#6798c1>4303",
13   "<color:#8872b0>chapters": "<color:#6798c1>-666",
14   "<color:#8872b0>someNumber": "<color:#6798c1>-7868.890",
15   "<color:#8872b0>moreNumber": "<color:#6798c1>213.43234",
16   "<color:#8872b0>NullValue": "<color:#6798c1>null",
17   "<color:#8872b0>ISO": "<color:#688153>ISO-2694:1243",
18   "<color:#8872b0>Definition": {
19     "<color:#8872b0>11def": "<color:#688153>A defintion.",
20     "<color:#8872b0>Formats": [
21       "<color:#688153>JSON",
22       {
23         "<color:#8872b0>Good Book": "<color:#cb7434>true"
24       }
25     ]
26   }
27 }
28 @endjson
```

ID	LOTR
pages	4303
chapters	-666
someNumber	-7868.890
moreNumber	213.43234
NullValue	null
ISO	ISO 2694:1243
Definition	
Good Book	true



Roadmap

Done

- Created JSON to PlantUML Pretty Printer in visualization style of institute
- Updated PlantUMLUtil for CD4A To PlantUML Pretty Printer
- Created according PlantUMLUtil

Work in Progress

- Fix existing CD4A To PlantUML Pretty Printer
- Create extensive test cases for it

Open Tasks

- Create CLI library for JSON Pretty Printer
- Write report