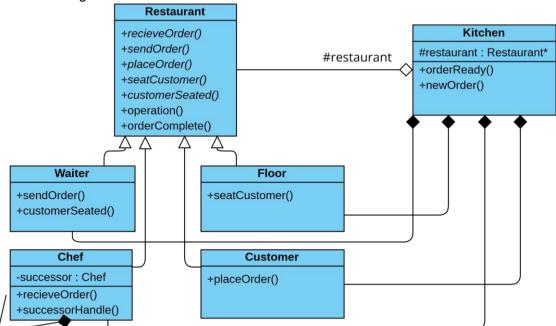
# COS 214 Practical 5 PDF

### Group members:

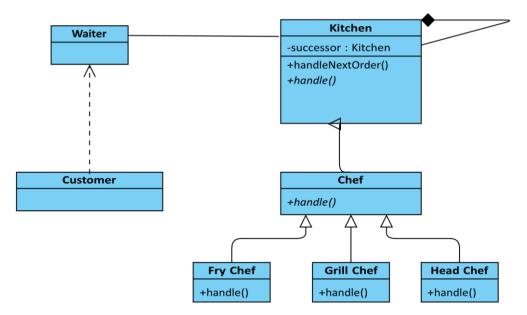
- u21797545 Mr. Douglas Porter
- u21479748 Miss. Sange Tshakumane
- u14046492 Mr. Mahleka Chuene
- u22625462 Mr. Graeme Blain
- u22738917 Mr. Aidan Chapman
- u20785233 Mr. Boikanyo Tshwale

### Mediator UML Class Diagram:





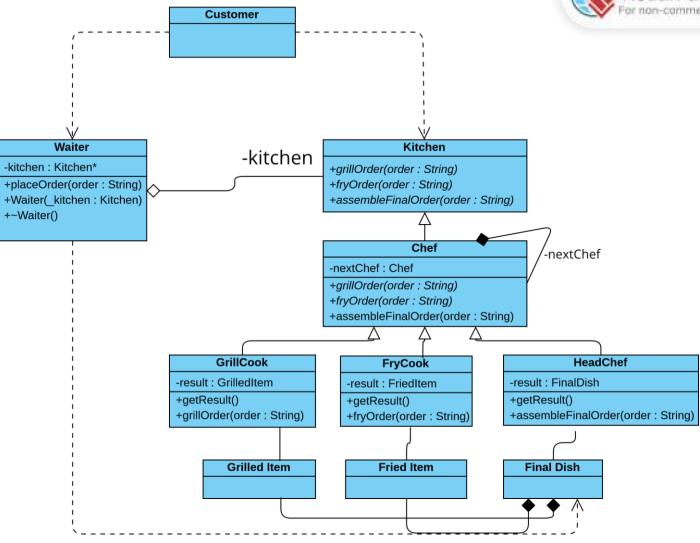
### Chain of Responsibilty UML Class Diagram:





### Builder UML Class Diagram:



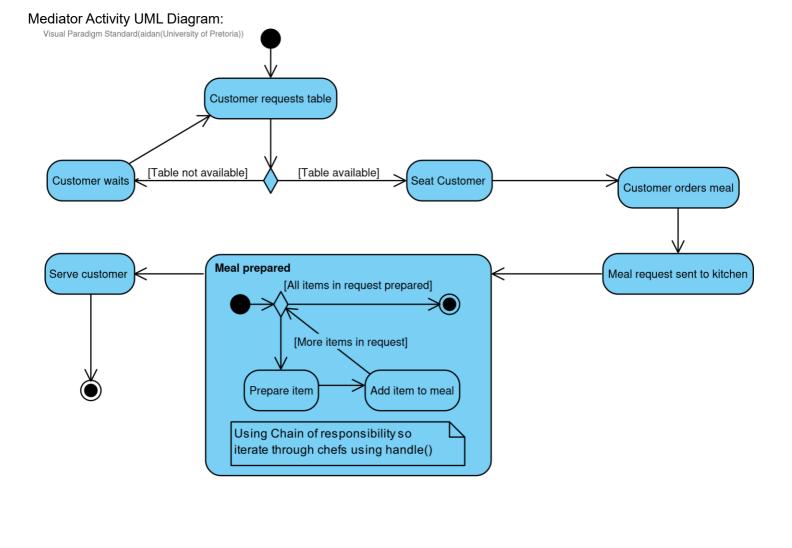


### Builder Activity UML Diagram:

Receive order Prepare food Add

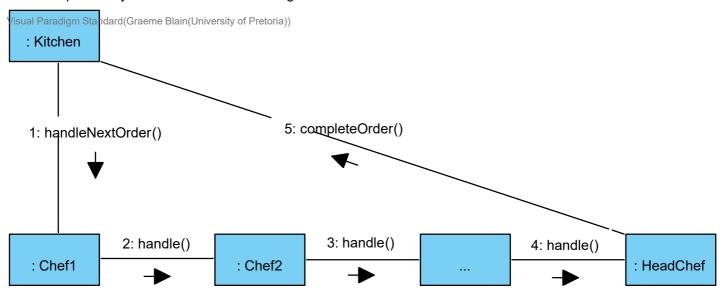
Visual Paradigm Standard(aidan(University of Pretoria))

# Chain of Responsibility Activity UML Diagram: Visual Paradigm Standard(aidan(University of Platons)) Receive order [All meals prepared] [Chef can prepare item] Prepare food [Chef cannot prepare item]



# Builder Communication UML Diagram: 'Sisual Paradigm Standard(Graeme 1: preparePart() 2: cook() FoodStation1 2: roodType1

### Chain of Responsibility Communication UML Diagram:



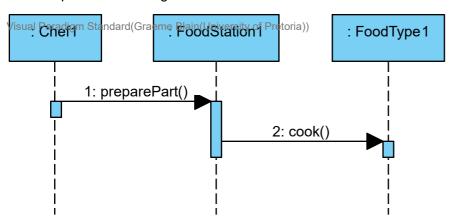
### Mediator Communication UML Diagram: Visual Paradigm Standard (Graeme Blain (University of Prelignary equest Table () : Customer : Resturant 12: sendOrder() 7: sendOrder() 8: receiveOrder() 2: seatCustomer() 13: serveOrder(), 4: showToTable () 15: serveOrder() 5: placeOrder() : Floor : Kitchen 11: completeOrder() 6: sendOrder() 9: : handleNextOrder() 3: seatCustomer() 14: serveOrder()

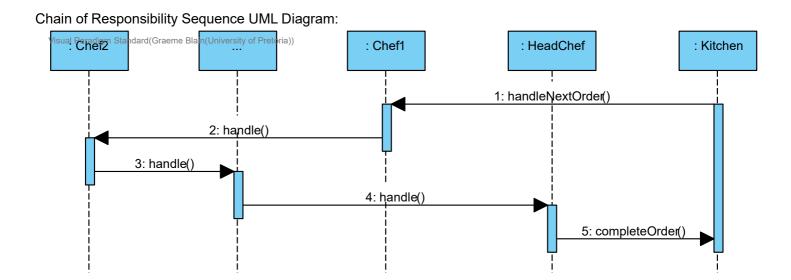
: Waiter

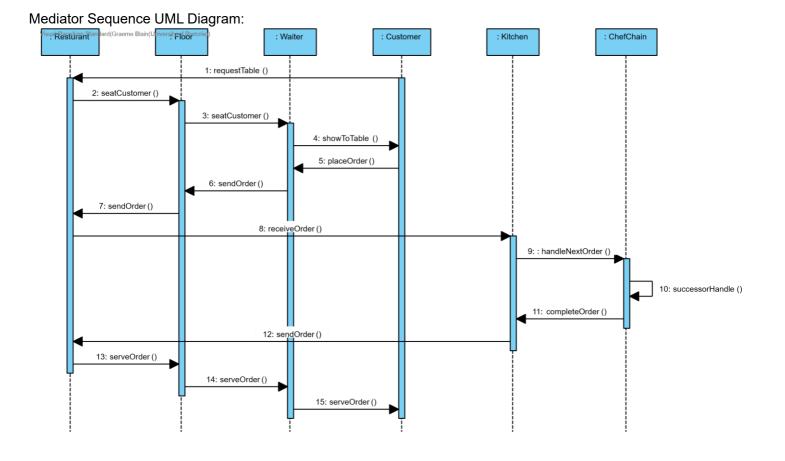
: ChefChain

10: successorHandle()

### Builder Sequence UML Diagram:







Builder State UML Diagram:

Visual Paradigm
Standard(aidan(University of Pretoria))

Created

Chef receives item to prepare

Completed

Chef prepares meal

Chain of Responsibility State UML Diagram:

Visual Paradigm Standard(aidan(University of Pretoria))

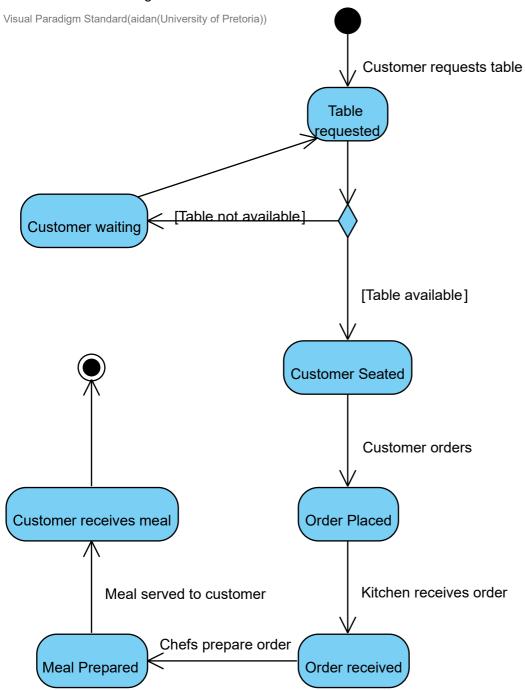
Waiter gives the kitchen a meal request

Request
Received

[No more items in meal request present present

As Chain is being used, the loop will not be explicit:
The entire meal request will be handed over to the kitchen and the handle() function of each chef will be used to iterate through each item requested in the meal (As each chef will be responsible for a specific item, if an item is found in the meal request that corresponds to that chef, it will add that to the meal object that will be returned)

### Mediator State UML Diagram:



## **Coding Standards Diagram**

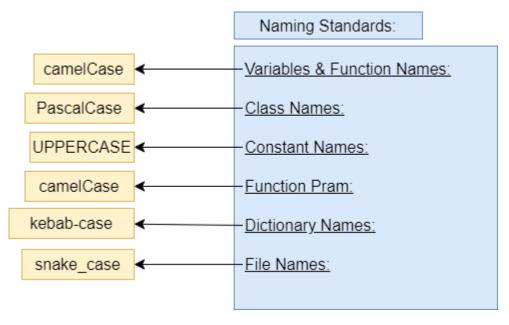
- File informational headers
  - A file informational header will be placed at the beginning of each source file.
    - Format
      - File name
      - Brief description of the purpose of the file
  - Programmers who collaborated on it

Revision history notes

Naming

### conventions

- Variable and function names have to be meaningful so that anyone can understand the reason of using it
- Variables should be named using camel case lettering starting with small letters (e.g localVariable)
- o Constants should use capital letters only (e.g CONSTANTVAR)
- Avoid the use of digits in variable names
- Names of functions and function parameters should be written in camel case lettering starting with small letters
- Name of a function must clearly and briefly describe the reason of using the function
- o File names should be in snake case



### Indentation

- Use tab indentation
  - o Each nested block should be properly indented and spaced
  - All braces should start from a new line and the code following the end of braces should also start from a new line
- Header files

- Each module has it's own corresponding header file that describes its interface. (i.e no mixing of interfaces into one header file)
  - o Header files will not contain any code, just declarations
- Header files will not be used to initialise data

### Subroutine headers

- Each subroutine in the file should have a header before the beginning of its declaration
- Format
  - Name
  - Brief description of its purpose
  - Subroutines called in support of this one
  - Return (if applicable)
  - Programmers
  - Date

### Comments

- All comments should comply to Doxygen commenting syntax
  - o Comments should be presented in paragraph form prior to a block of code
  - Indent block comments on the same level as the block being described
     Although block comments will be the primary form of commenting, use inline comments where appropriate
  - o An inline comment shall accompany each definition of a variable

### Git standards

- o No pushing directly to the master branch
  - Everyone branches off of the master branch then code will be merged into the master branch at a later stage
  - o Use clear and concise commit messages

