# Design Problem Statement && Diagrams

Special class

Love Babbar • May 17, 2024

$\rightarrow$ RMS :-

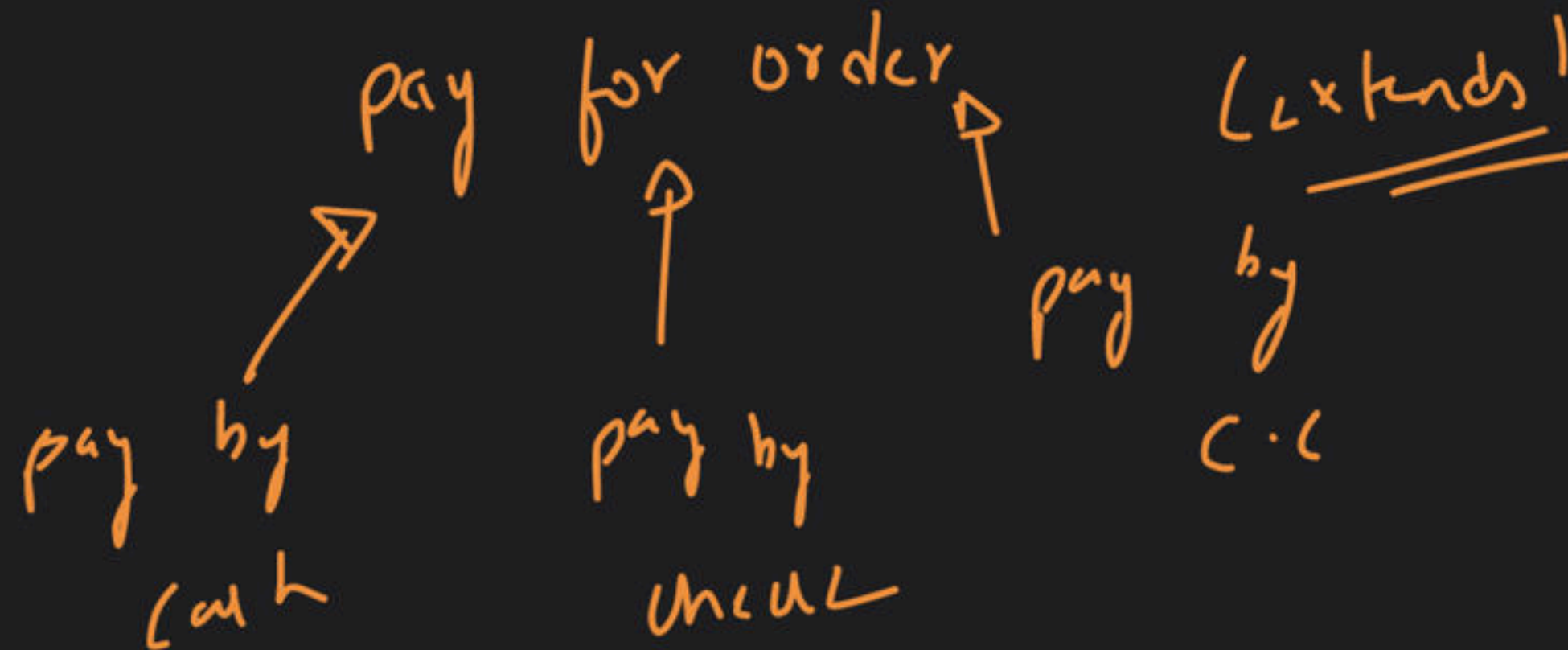Actors :

P.A

Customer

Waiter

Receptionist

Manager

S.A

System

① Customer ⟶ reserve table

update/cancel reservation

view Menu

place order

cancel /remove/add/update order item
cancel order
view order

pay for order          (extends)

pay by          pay by          pay by
cash            credit          C.C

① **Waiter:-**

view Menu

order place

remove/add/update order item

cancel order

view order

accept payment

③ **Receptionist**

↳ reserve table

↳ update/cancel reservation

add/update table chart

feedback

**Manager :-**

→ all waiter

→ all Receptionist

→ resolve dispute

→ add/update menu section

→ add/update menu item

→ generate report

2 min Break

**System**

→ notification

→ add/remove/update restaurant

→ show reports

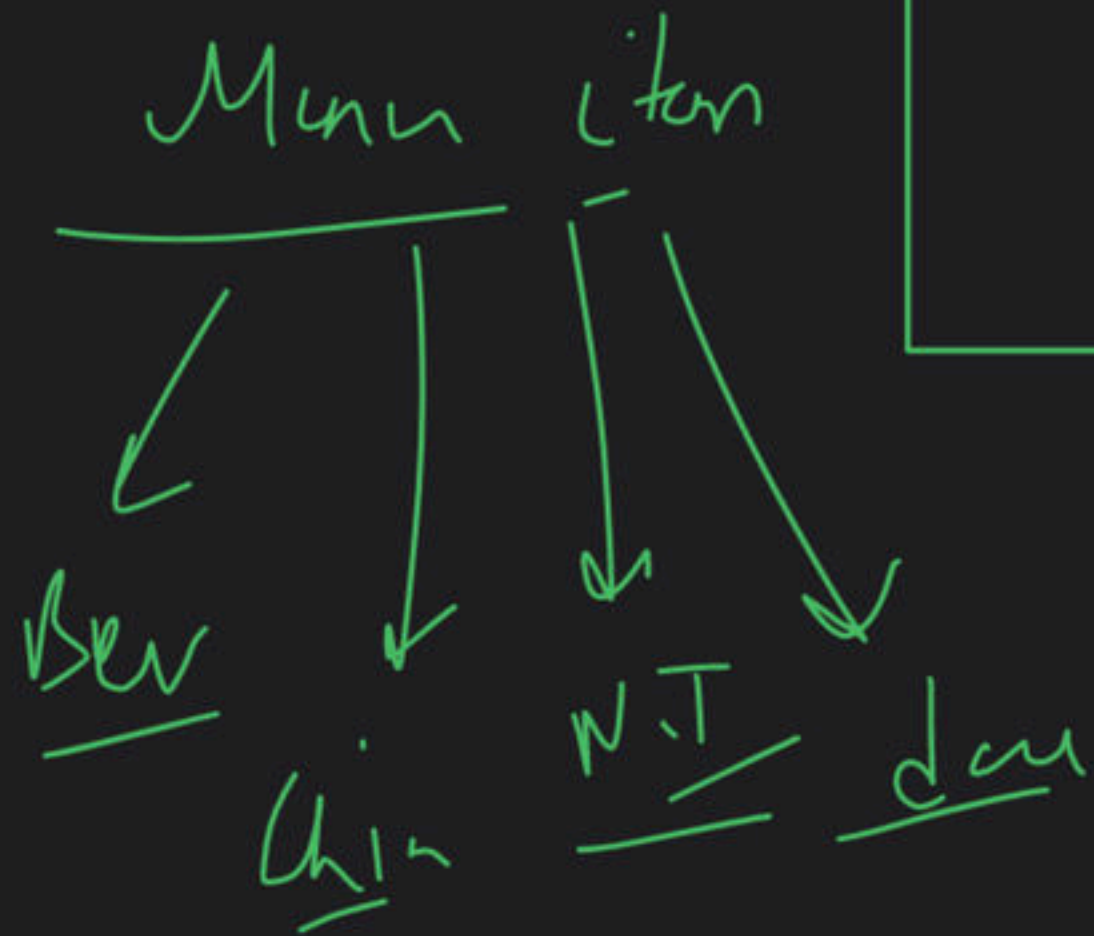→ show available tables

→ book/cancel table

Use case diagram (hand-drawn) for a restaurant system.

Actors:
- customer
- waiter / gen.
- manager / gen.
- Reception

Use cases:
- reserve table
- modify reservation
- view menu
- place order
- cancel order
- modify order
- view order
- send notification
- process payment «ext.»
- pay by check
- pay by cash (extend)
- pay by card (ex)
- resolve dispute
- add/update menu section
- add/update menu item
- add/remove restaurant
- show reports
- show available tables
- generate report
- generate bill
- add or update table chart
- take FB from customers

Relationships:
- «includes»
- «includes»

System

# Design Pattern

notification/
reminder

Menu item

| (1) | Singleton | → | System |
| (2) | Observer | → | Reservation |
| (3) | Factory | → | Menu item |
| (4) | Command Pattern | → | DB interaction |

Menu item

Bev

Chin     N.T     dau

Classes :-

(C·D)

(26)
Classes

Menu
Menu Section
—
Menu Item

Branch.

Enum
→ Account Status
→ Payment Status
→ Order Status
→ Table Status
→ Res· Status

Waiter | Receptionist | ~~Customer~~ | Manager | Chef → (Employee)

(Customer) ——————————→ Person/Account

Table
Order
Reservation
Payment

Notification

Bill

Meal

Meal Item

Table Chart
Restaurant
—
System