LLD-3   (15 classes)

Tic Tac Toe

Parking lot

Book my show   } Springboot
   ↓
Split wise   Project

Break

Agenda :-

1) Types of LLD interview

2) How to approach

3) Design a Pen.

Types of LLD Interview

Theoretical	Design	Machine Coding
→ old MNC's, Banks.	→ Problem Solving	→ Startups
→ Test knowledge	→ case study amazon, walmart, Paypal.	Flipkart/myntra/ Cred/Zepto/ zomato.
→ Oops / design pattern		
→ 30-45 mins	→ 30-45mins.	→ Design + Code
→ No code, at max example code.	→ Code the classes.	→ write end to end feature, 2.5 hrs.
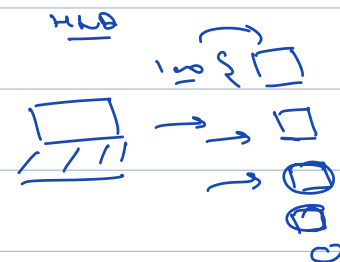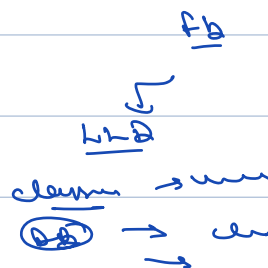
| Design	Machine Coding
→ Single line problem statement,	→ Detail document of the requirements,
→ ==Gather Requirements==	→ clarify the reqm.
→ class diagram	→ class diagram
→ Schema diagram	→ Schema diagram
→ Code for the classes	→ complete end to end feature.
→ follow up.	⇒ follow up.

At Scaler

1. 1 line PS.
2. Gathering req.
3. classification
4. class Diagram
5. Schema diagram.
6. Coding functionalities.

Design a Pen

Step 0 :-   Get an Overview.

↓

align your thoughts
with interviewer on
Problem Statement.

Overview

already aware   not aware

↓   ↓

what you know   ask to give
↓   an Overview.
align,
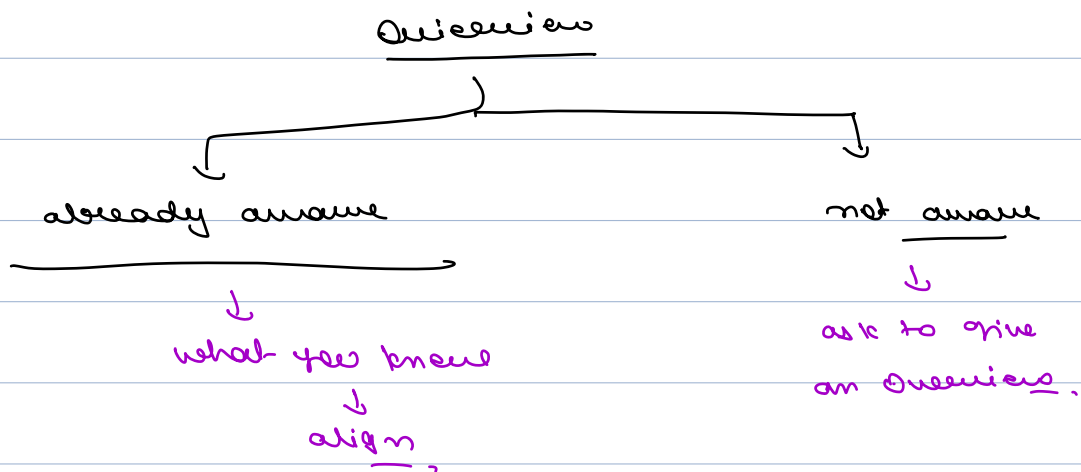
what do you want me to design ?
→ entity
→ real s/w system.

Do I need to Persist data

✓ yes   ↘ No
db   In Memory.

How do I interact with the client?

→ Hard code

→ Command line.

→ Rest API y → Project module

(X) ——————————→ (X)
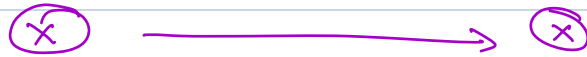
Step1 :- Gathering & clarify req^n

→ Suggest / features & ask
   if they want these to
                 be supported.

Note down,

→ 5-8 features.
            ↳
         visualize.

Any physical entity that can write behaviour is a pen.

Supporting gel pen, ball pen, fountain pen.

Gel and ball pen will have a refill, others will not have a refill, and refill will have ink.

Different inks have different colours.

For every pen, need to store the brand, name and price.

Pen can be either closed via cap or via click buttons.

Often refills have different nibs radius, so we have to store the radius of nibs

The fountain pen itself has nibs.

⟶ Design diff. classes

Break

10:06pm — 10:15pm
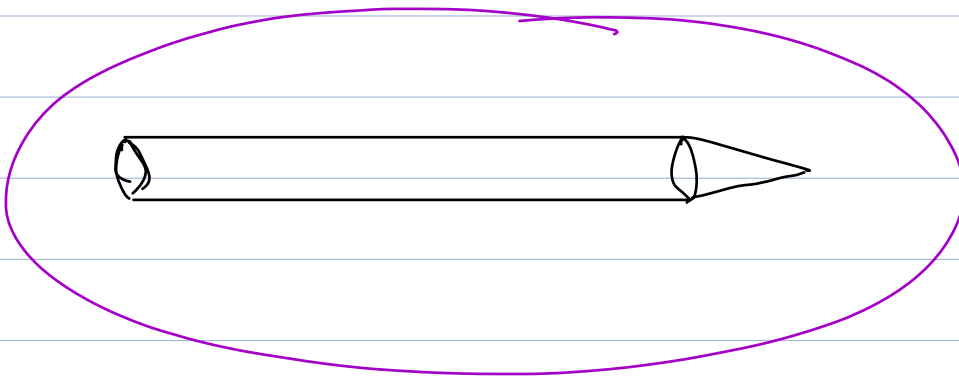
class diagram

① visualise the reqrmt / entity.

② By identifying the nouns.

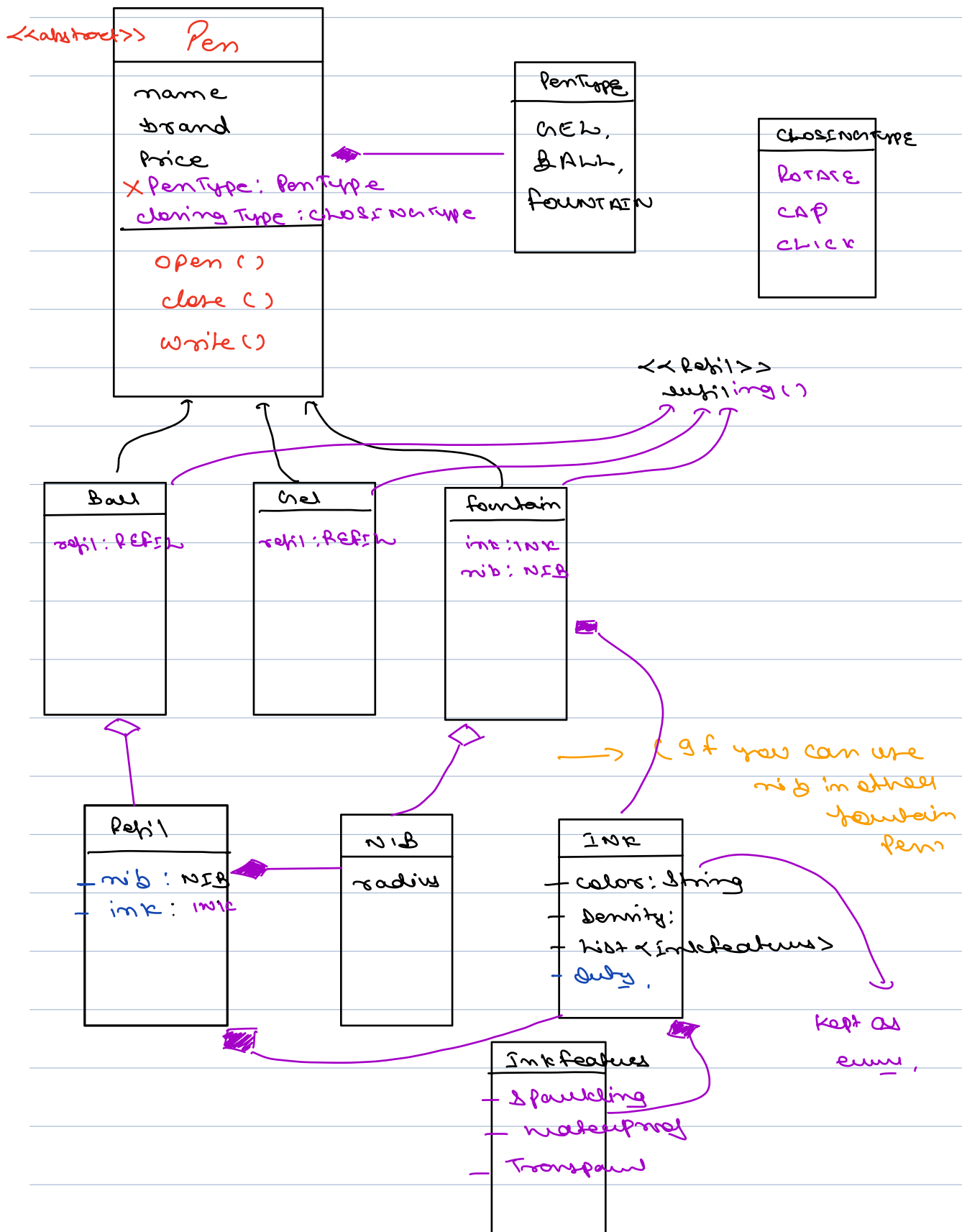classes
interfaces
enums
design patterns.

<> Pen

---
name
brand
Price
X PenType: PenType
cloning Type : CHOSINGTYPE

---
open ( )

close ( )

write ( )

PenType

GEL,
BALL,
FOUNTAIN

CHOSINGTYPE

ROTATE

CAP

CLICK

<<Refil>>
refiling ( )

Ball

---
refil : REFIL

Gel

---
refil : REFIL

---

fountain

---
ink : INK
nib : NIB

(If you can use
nib in either
fountain
Pen)

Refil

– nib : NIB
– ink : INK

NIB

---
radius

INK

– colors : String
– Density :
– List < inkfeatures>
– Duty .

---

kept as
enum.

Inkfeatures

– Sparkling
– waterproof
– Transparn

Schema design

MVC Architecture

Reqm of TIC TAC TOE

Associations

Aggregation   Composition

SUN	MON	TUE	WED	THU	FRI	SAT
C	C		C	eYs	C	
11	12	13	14	15	16	17

Ralchi

SUN	MON	TUE	WED	THU	FRI	SAT
	C		C			
18	19	20	21	22	23	24

LLD-1 mock