Agenda:
1 Thtro to UML Diagrams
2) Use case diagram
3 Class Diagram
LLD 3 module
1) UML D'agram
1) thow to approach Design Interviews
(3) Tic Tac Toc -> Design
3) Tic Tac Toc Design (a) Parking Lot cooling clowes
SpringBoot (G) Splitwise
J-1.1 w .3 c

UML Diagrams

SWE: team sports

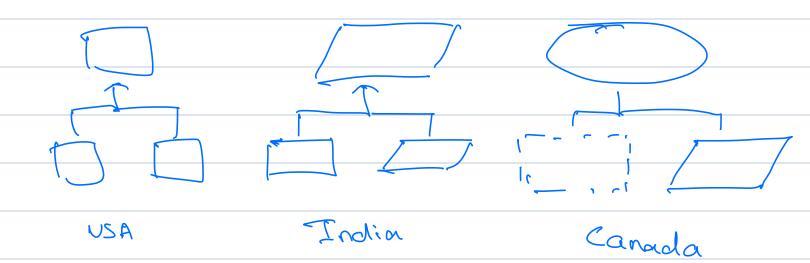
- Communication is very important

(1) Words: you can have misunder standings

- Explaining complex things is difficult.

2) Diagram: A picture is worth a thousand words.

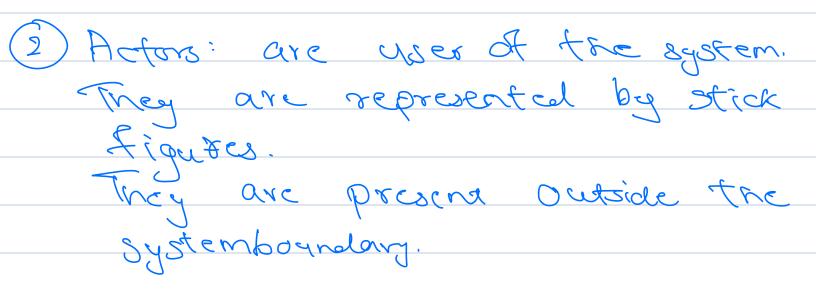
Con: There is no standardization

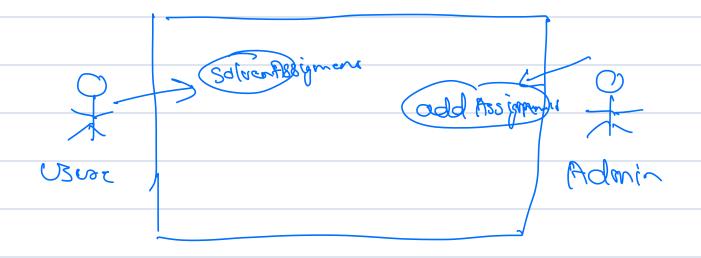


The standardizat is OMI diagran (Unified Modeling Language) Structural Behavioral Structure of condeficions represent behaviours or Features O Class Diagran O Use case Diagram Component Diagran @ Sequence Diagran 3) Package Diagram (3) Activity Diagram (D) Objett Djagram

H/W: Sequence Diagram Activity Diagram Component Diagram

Il Voecase diagram	
<u> </u>	
Usecase diagram is used to	represent
Usecase diagram is used to various features et a system	
5 imp components in a use	Case
d'iagram:	
7	
D System boundary: It's a	rectangle.
D System boundary: It's a r Every feature that we or be present inside the s	bloods mi
be present inside the s	geten
Dandary.	
	dont own
Every feature that we should be outside.	
	a system
	Lounday





Arrow is used to connect an actor with asecases that they have access to.

3) Usecase:
I it nothing but a feature
-> it nothing but a feature -> its represented by an oval
109 111
join Class
Catue Assignment
(4) Includes
Checkenut -> Fill Address -> mare Payment
' -Caroles
indudes FinAddress indudes marchynes
makekumen

Extends: 1. Extend the same feature for different actors 2 Multiple variants of the Same feature render Dash board 2. login (CEFINA

Arrow should point from Child to
Parent,
Class Assignment
Draen a use ouse diagram for
BOOK My Show
- Atrant 5 useases
- Afreast 2 actors
- Afread 1 includes
- Atleast 1 extends
draw, io
MA 00:3 11i)
Break till 8:12 AM
Lass Diagram

Clas Diagram (Structura)

() Class

class name	Studene	
Class attro	- name: String	
	+ age: int + Stadent (Stri	, ine
Class methods	t join (String):	

Class attrs:

Occess	ager	•	(data)
malifier	Name	•	type

Lo private: -

Lo profected: #

Lo default:

Class method:
nodifier name destagged desta
static: just underline the name of
it static
in the contraction of the contra
- INSTANCE : ASC
-> Singleton
+ getIndance ():ABC

Interfaces

LEFIGISCE >>

Fly (): void

Abstract

Database Connection The name of

the class &

the name of

the name of

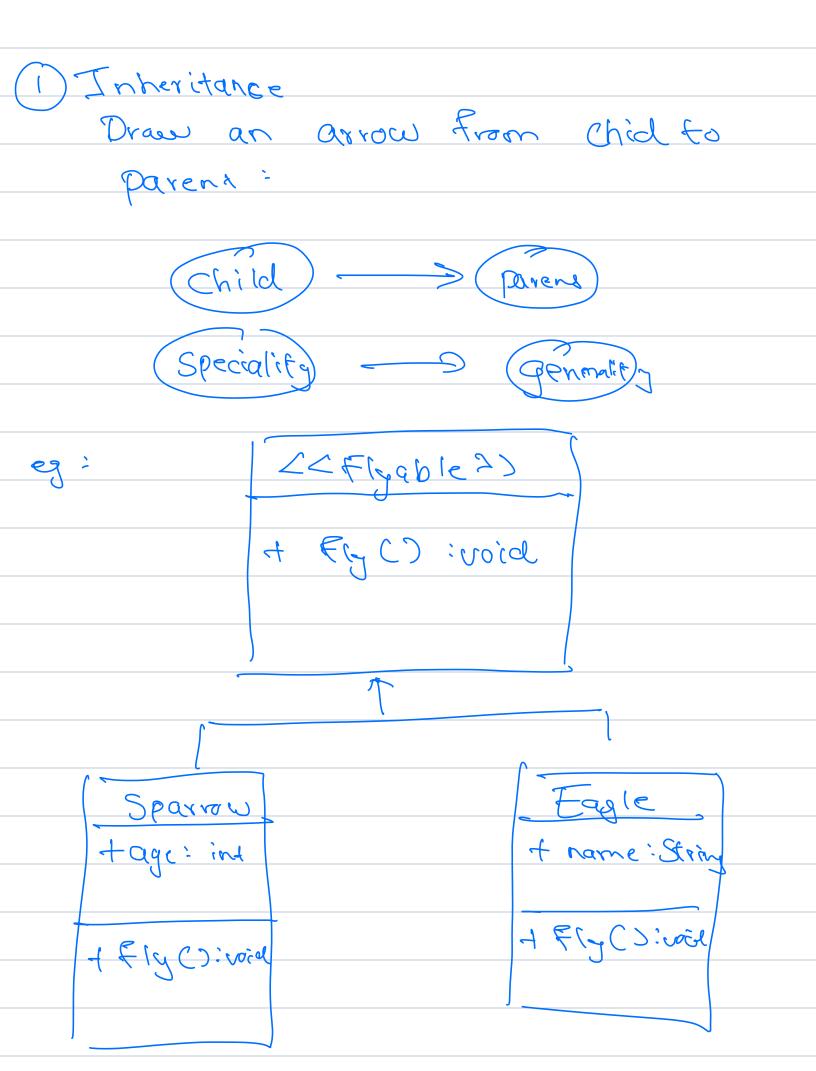
the abstract

methods thould

ping: into be written in

italica.

Frams			
	-		
	Color		
Emun (0		
values	RED, YELLOW, CEREEN		
	GREEN		
	+ Oct Coloa From 7	roled: Ctroid the	
	7 9000000	700 (011)	
Recution	nships blo	a contities	
	•		
	Types		
	,)		
T	S-B	HAS-	A
CT	S-A heritance		4, 7
(7)	mericance.	CASSOCIO	
		<u> </u>	
		Aggreet ion	Compasition
		- ∨	



Aggregation

Car

Corpassergers & Aggregation

Corposition

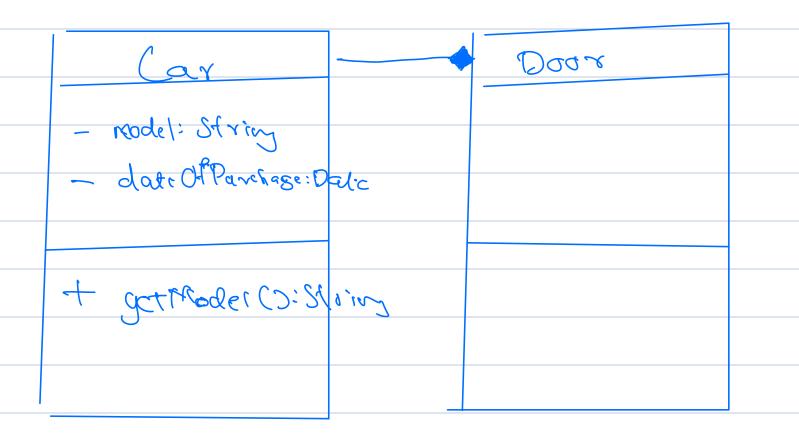
Composition

Composition

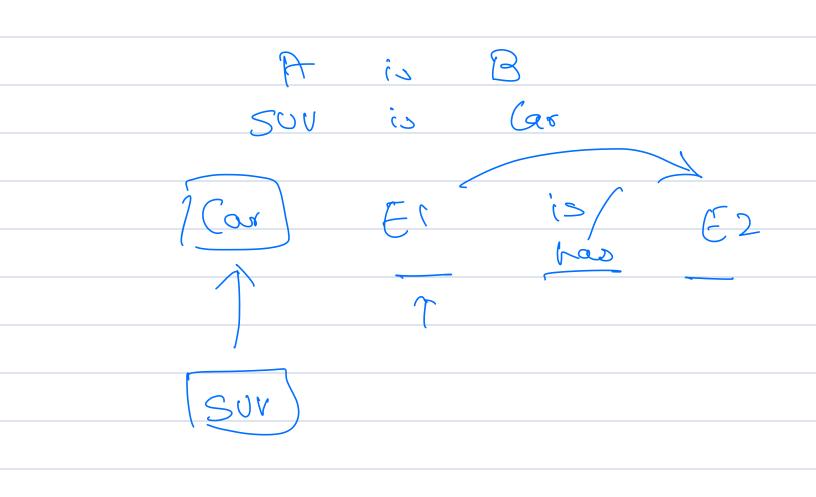
Composition

Car		Passenger	
- model: String			
- date Of Parchage: D	alc		
+ gctroder():S1	10 ias		
<u> </u>			

Composition



Class A ? A has B



Assignment: Create Class Diagram for the Final design of the bird class.

LLO 2 Assignment:

Object

inderested on you are
interested

interested

interested

inan

this object

event

< 2 you DSA + LLD

>2 & <5

DSF + Strong LLD

>5

DSB + LLD + Strong HLD

LLD 1 >> Basic + Adv OOPS
LCD2 Design Part- » & Principle
LLD3: Build Projects in SOLID (Mashine Coding) compliant
(Mashine Coding) compliant
LLD 12 : Go deep in Project