

## [Assignment-2]

Name: Intiaz Hossain

ID : 23101137

Section: 15

Course : CSE 370  
code :

Faculty : [MTT]  
Initial :

# Answer to the question no 1

## PERSON

<u>SSN</u>	Name	Address	phone	salary	shift	Restr	Lic_num	E_Flag	P_Flag
------------	------	---------	-------	--------	-------	-------	---------	--------	--------

## WORKS\_ON

<u>P_model</u>	<u>E_SSN</u>
----------------	--------------

## FLIES

<u>P_model</u>	<u>P_SSN</u>
----------------	--------------

## PLANE\_TYPE

<u>model</u>	capacity	weight
--------------	----------	--------

## MAINTAIN

<u>E_SSN</u>	<u>A_Reg#</u>
--------------	---------------

## HANGAR

<u>Number</u>	Location	capacity
---------------	----------	----------

## AIRPLANE

<u>Reg#</u>	<u>H_Number</u>	<u>P_model</u>
-------------	-----------------	----------------

## SERVICE

<u>A_Reg#</u>	Hours	Date	workcode
---------------	-------	------	----------

## OWNER

<u>ID</u>	Name	Address
-----------	------	---------

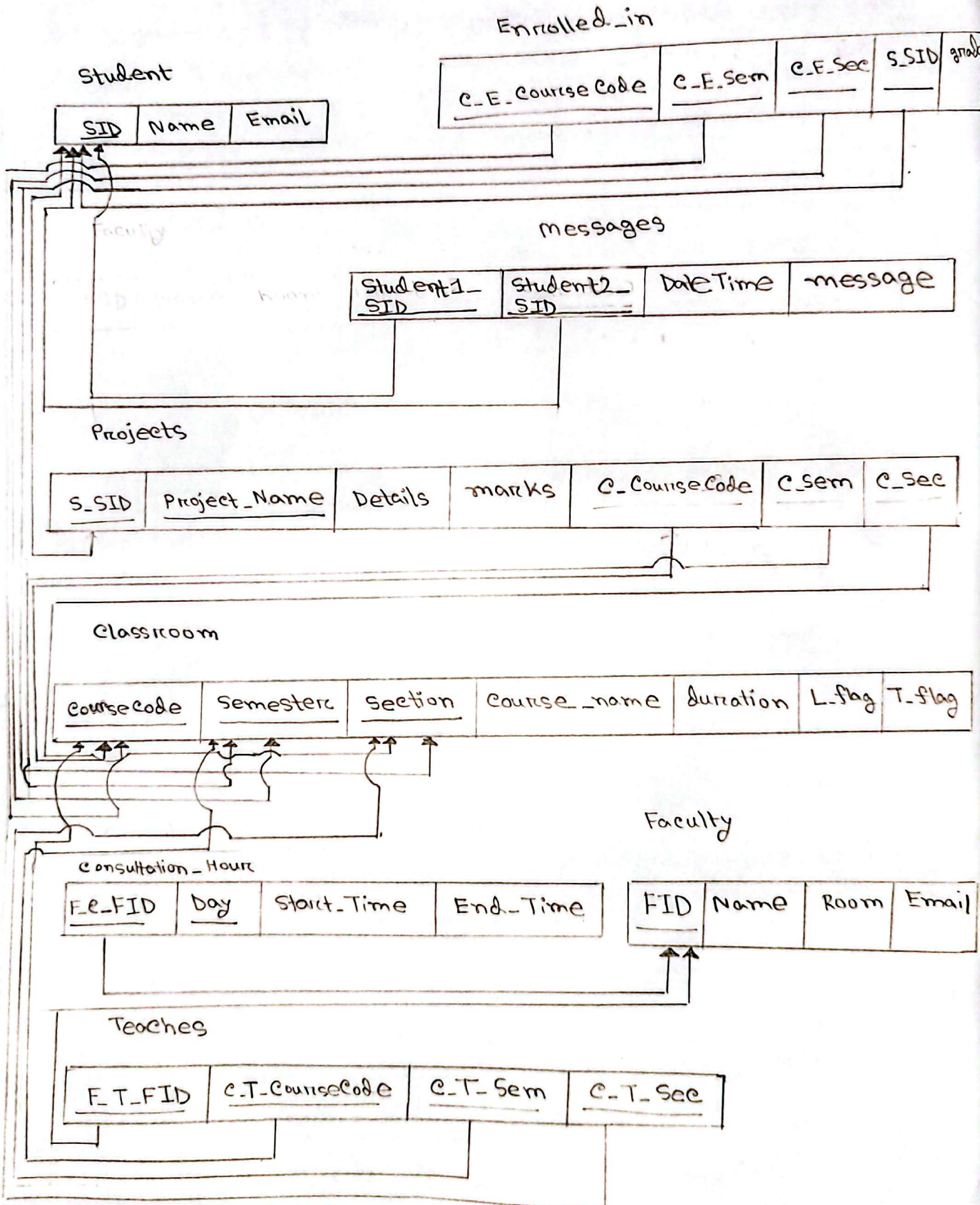
## OWNS

<u>A_Reg#</u>	<u>O_ID</u>	Pdate
---------------	-------------	-------



## Answer to the question no 2

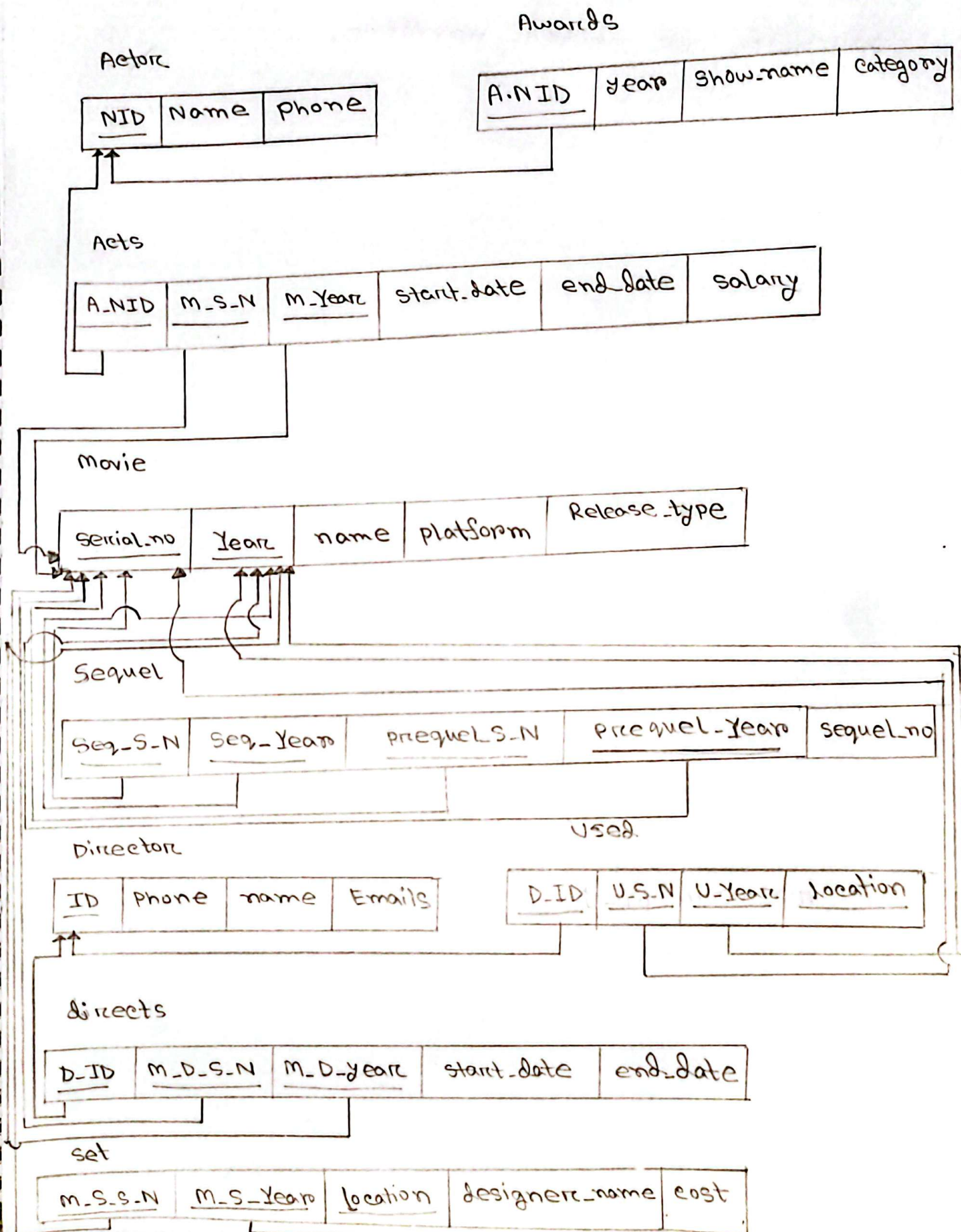
I will be using 8D for the specialization portion. Since, there is an overlapping relationship between the subclasses. So, 8D would help us to save storage.





# Answer to the question no 3

I will be using 8C for the specialization portion. Since, there is a disjoint relationship between the subclasses,



## Answer to the question no 4

- a. The above relation is in the first normal form (1NF). There are no composite, multivalued attributes or nested relations.
- b. The above relation is not in the second normal form (2NF). There are partial functional dependencies.

Courses - Info

<u>Course_code</u>	Department	credits	Course_title
--------------------	------------	---------	--------------

Coordinator - Info

<u>Course_code</u>	<u>Semester</u>	Coordinator_Initial	Coordinator_name	Coordinator_email
--------------------	-----------------	---------------------	------------------	-------------------

Course\_offer

<u>Course_code</u>	<u>Section_no</u>	<u>Semester</u>	slot	Room_no	Building_no	capacity	Total_students
--------------------	-------------------	-----------------	------	---------	-------------	----------	----------------



c. The above relation is not in the third normal form (3NF). There are Transitive Functional dependencies.

[3NF normalization]

Coordinator\_course\_1

<u>course_code</u>	<u>semester</u>	Coordinator_initial
--------------------	-----------------	---------------------

Coordinator\_course\_2

<u>Coordinator_initial</u>	Coordinator_name	Coordinator_email
----------------------------	------------------	-------------------

Room\_Info

<u>Building_no</u>	<u>Room_no</u>	capacity
--------------------	----------------	----------

Course\_offer

<u>course_code</u>	<u>section_no</u>	<u>semester</u>	Building_no	Room_no	Slot	Total_students
--------------------	-------------------	-----------------	-------------	---------	------	----------------

## Answer to the question no 5

1. The above relation is in the first normal form (1NF). There are no composite, multivalued attributes or nested relations.

2. The above relation is not in the second normal form (2NF). There are partial functional dependencies.

### [2NF normalization]

Platform

<u>PlatformID</u>	Platform Name	Category	Launch Year	headquarters	registration Fee
-------------------	---------------	----------	-------------	--------------	------------------

Workshop

<u>WorkshopID</u>	topic Area	duration	work shop Title
-------------------	------------	----------	-----------------

Workshop1

<u>WorkshopID</u>	<u>session No</u>	<u>eventNo</u>	Presenter ID	Presenter Name	Presenter Email
-------------------	-------------------	----------------	--------------	----------------	-----------------

Online\_Workshop 1

<u>PlatformID</u>	<u>WorkshopID</u>	<u>sessionNo</u>	<u>eventNo</u>	feedback Score	Participant Count
-------------------	-------------------	------------------	----------------	----------------	-------------------



3. The above relation is not in the third normal form (3NF). There are Transitive Functional Dependencies.

[3NF normalization]

category\_info

<u>Category</u>	<u>Launch Year</u>	registrationFee
-----------------	--------------------	-----------------

Platform\_info

<u>Platform ID</u>	platformName	category	Launch Year	headquarters
--------------------	--------------	----------	-------------	--------------

Presenter\_1

<u>Presenter ID</u>	presenterName	presenterEmail
---------------------	---------------	----------------

workshop\_presenter

<u>Workshop ID</u>	<u>session NO</u>	<u>event NO</u>	presenter ID
--------------------	-------------------	-----------------	--------------

workshop\_info

<u>workshop ID</u>	topicArea	duration	workshop Title
--------------------	-----------	----------	----------------

Online\_workshop.1

<u>Platform ID</u>	<u>Workshop ID</u>	<u>session NO</u>	<u>event NO</u>	feedback score	Participant Count
--------------------	--------------------	-------------------	-----------------	----------------	-------------------