

WIA 1002 Database

Tutorial 2

1. Importance of data modelling:
 - to understand ^{the} complexity of complex real life models
 - as a communication tool
 - gives an overall view of the database
 - organize data for various users
2. Business rules: a brief, precise and unambiguous description of a policy, procedure or principle within an organization

Exampler: - only the students of faculty X can register for this class

- a student must have at least 1P credit hours for each semester

3. Example of the three types of relationship:

i) 1:1 - a student can only enroll for one faculty only

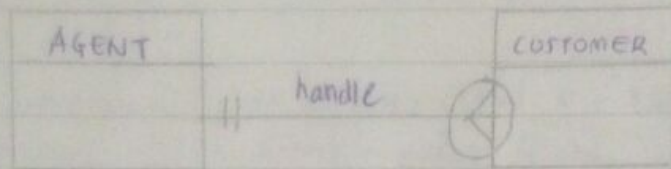
ii) 1:M - a faculty can accept many students, but one student can only register for one faculty only

iii) M:N - many students can ~~take~~ register for many subjects, and ~~subjects~~ many subjects can be ~~taken~~ by registered by many students

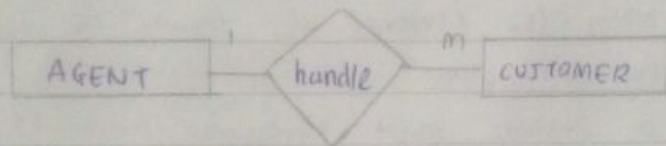
4. i) Business rule(s) that governs the relationship between AGENT and CUSTOMER

- an agent can handle many ~~instance~~ customers
- a customer can only be handled by one agent

ii) Basic Crow's Foot and Chen's ERD

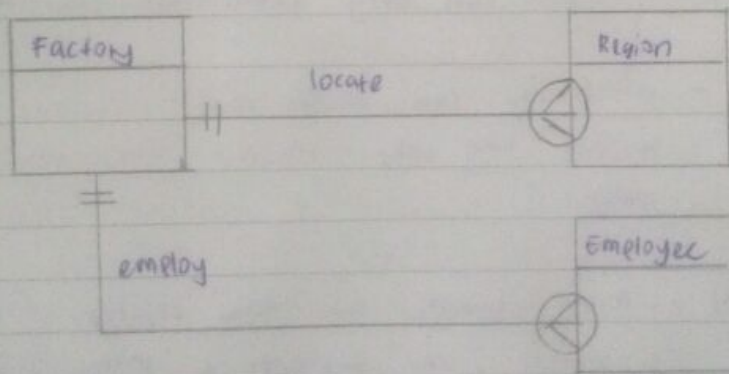


Crow's Foot ERD



Chen's ERD

5. Crow's Foot Notation:



6. Difference between a database and a table.

Database: a collection of data that may be sorted in tables

Table: smaller part of database that contains data and attributes

7. a) UNION

BOOTH_PRODUCT	BOOTH_PRICE
Chips	1.5
Cola	1.25
Energy Drink	2
Chips	1.25
Chocolate Bar	1
Energy Drink	

b) INTERSECT

BOOTH_PRODUCT	BOOTH_PRICE
Energy Drink	2

MACHINE

c) DIFFERENCE BOOTH

MACHINE_PRODUCT	MACHINE_PRICE
Chips	1.25
Chocolate Bar	1
Chips	1.5
Cola	1.25

Page

63