Entity Relationship Modelling Exercises

1. Best postgraduate student award is a attendance system for award ceremony for the best postgraduate students (see Figure 1 and 2). Identify all entities, attributes, and primary key attribute(s). Then, draw a complete entity relationship diagram to represent the conceptual data model for this attendance system.

Figure 1: Login Page

Figure 2: Detail Page

2. Three Minute Thesis (3MT) is a system that used for postgraduate students to participate in the presentation competition (see Figure 3 and 4). This presentation must be done in 3 minutes only. Identify all entities, attributes, and primary key attribute(s). Then, draw a complete entity relationship diagram to represent the conceptual data model for 3MT system.

Figure 3: Login Page

Figure 4: Detail Page

3. Postgraduate Survey is a system that filled by visitor who present any events that made by SPS, UTM such as PostGraduate Info Day 2013 (see Figure 5). Identify all entities, attributes, and primary key attribute(s). Then, draw a complete entity relationship diagram to represent the conceptual data model for this attendance system.

Figure 5: Detail Page

4. Figure 6 is the Three Minute Thesis (3MT) Competition 2013 Application Form that used for postgraduate students to participate in the presentation competition. This presentation must be done in 3 minutes only. Identify all entities, attributes, and primary key attribute(s). Then, draw a complete entity relationship diagram to represent the conceptual data model for 3MT.

Entity Relationship Modelling Exercise

1.
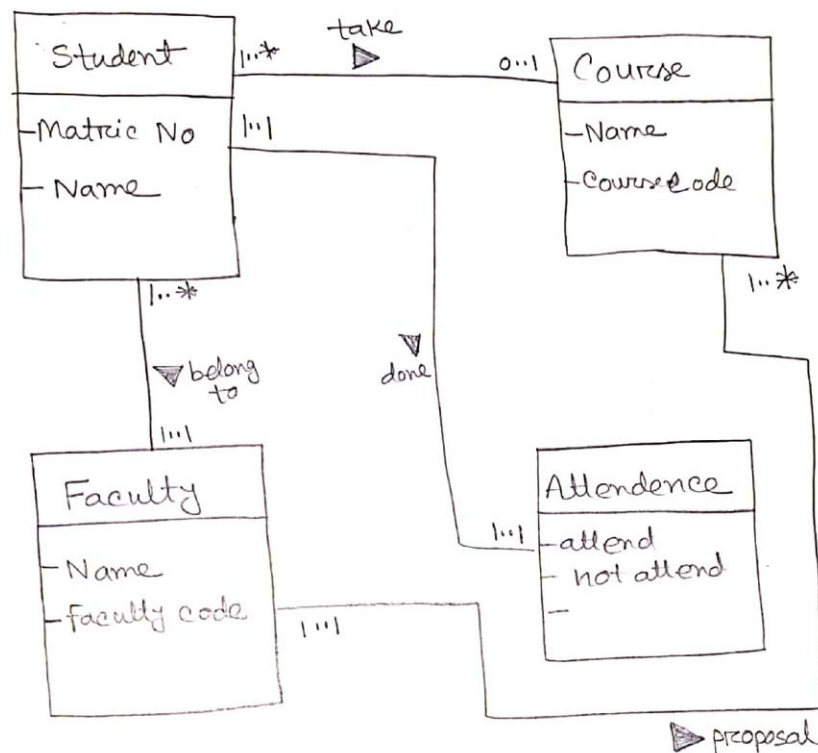
Primary key = from student table (Matric No)

             from course table (course code)

             from faculty table (faculty code)

Entities = Student, Course, Faculty

Attributes = for student table, matric no, name

            Course table   course code, name

            faculty table.   faculty code, name

2.

Student
- name
- IC/ISID no
- matric no
- phone no
- bank acc. no
- email
- title of thesis

Supervisor
- name
- supervisor ID
- phone no
- email

Faculty
- name
- faculty code

Program
- Program Name
- Program Code

Document
- Slide powerpoint URL
- Resea: summary URL
- matric card URL
- font page bank account URL
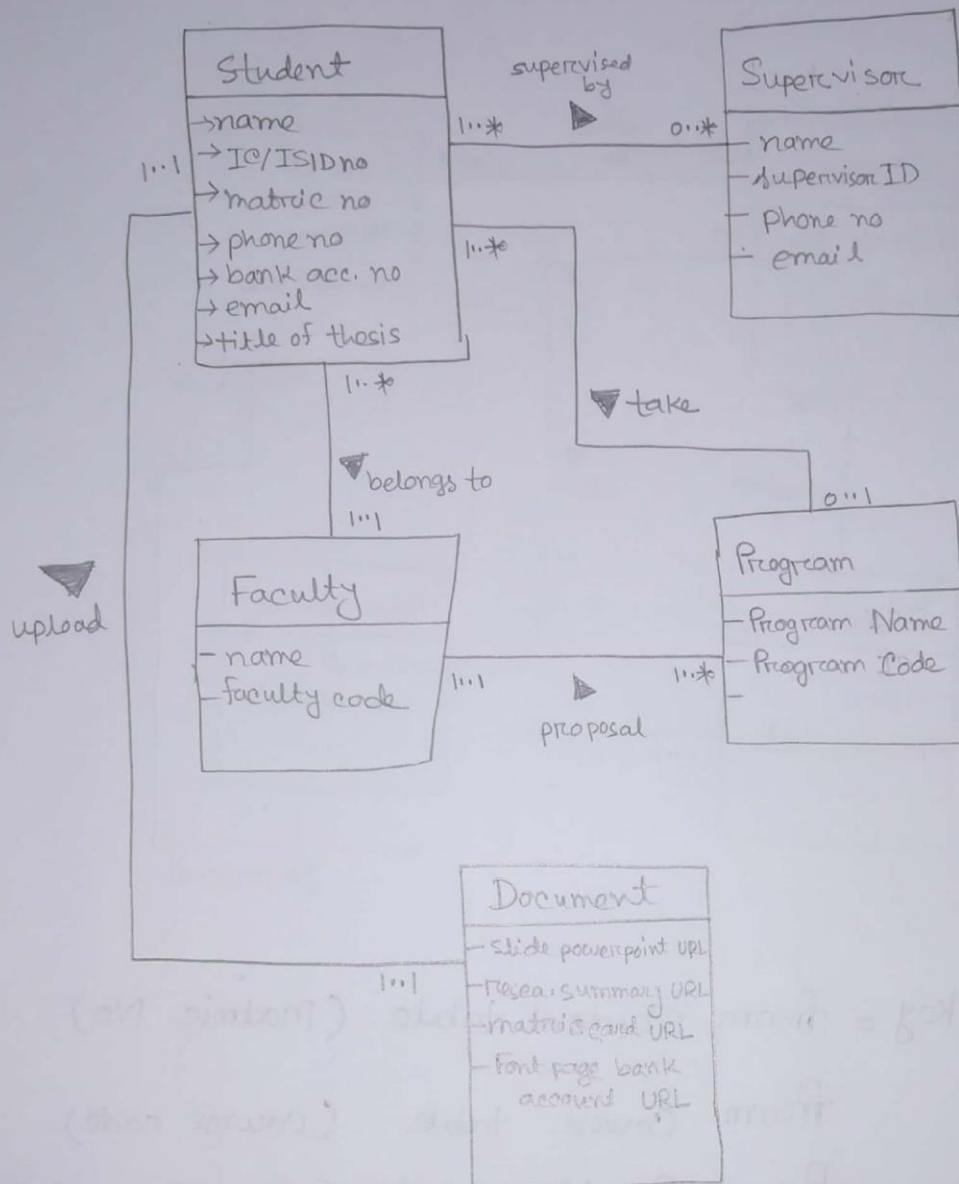
Primary key = from Student table (matric no)
from Faculty table (Faculty code)
from Program (Program code)

Entities = Student, Supervisor, Faculty, Program
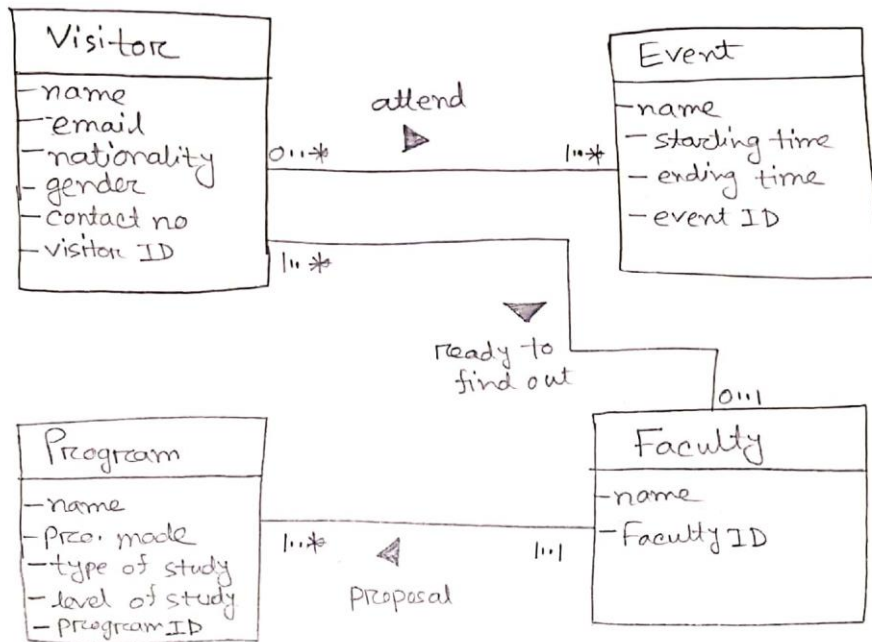
Attributes will be a relationship with column.

3.

Visitor
- name
- email
- nationality
- gender
- contact no
- visitor ID

attend ▷   0..*   1..*

Event
- name
- starting time
- ending time
- event ID

1..*

ready to find out ▽   0..1

Program
- name
- Pro. mode
- type of study
- level of study
- program ID

1..*   ◁ Proposal   1..1
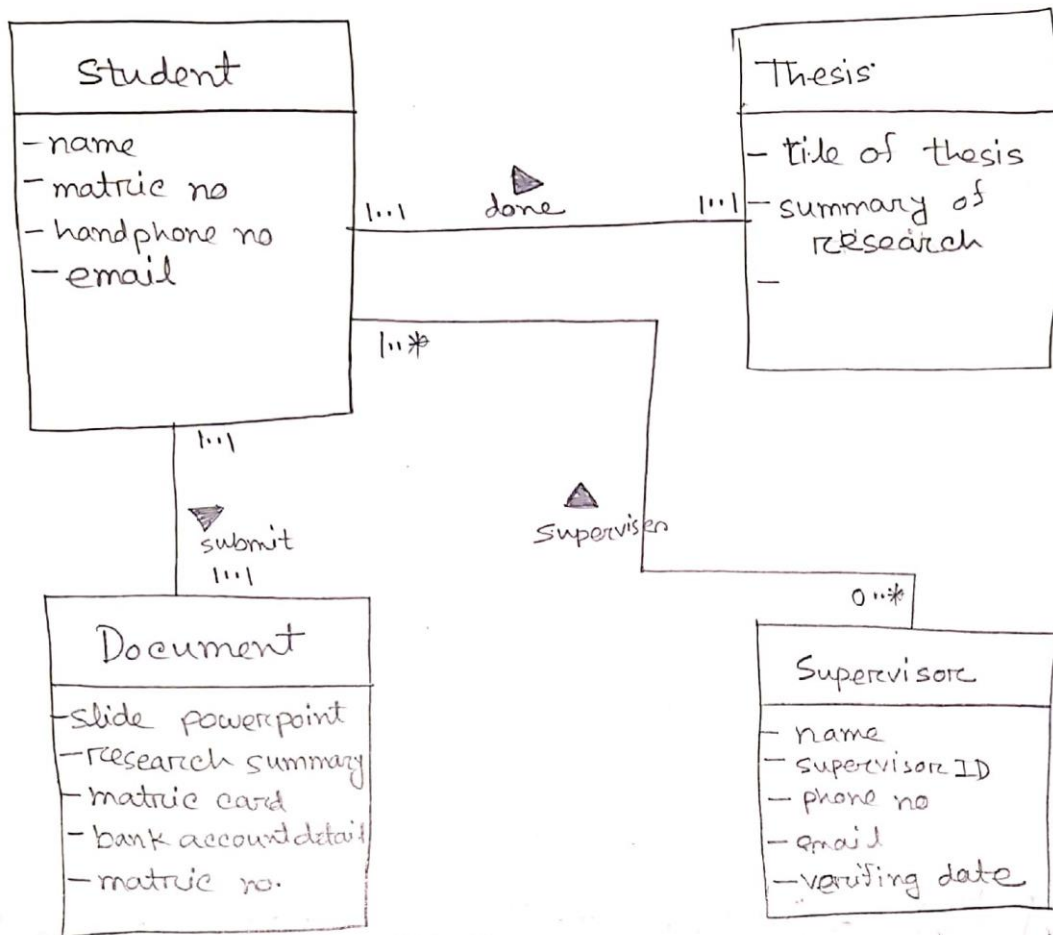
Faculty
- name
- Faculty ID

Primary Key = (Visitor ID) (from visitor table)
event ID (from Event table)
~~Program ID (from Program table)~~
faculty ID (from faculty table)

Entities = Visitor, Event, faculty, Program

Attributes will be a relationship with column.

4.

Student
- name
- matric no
- handphone no
- email

Thesis
- title of thesis
- summary of research
-

1..1   done   1..1

1..*

1..1

submit

1..1

Supervise

0..*

Document
- slide powerpoint
- research summary
- matric card
- bank account detail
- matric no.

Supervisor
- name
- supervisor ID
- phone no
- email
- verifing date

Primary Key = from student table (matric no)

from supervisor table (supervisor ID)

Entities = Student, thesis, Document, Supervisor

Attributes will be a relationship with column.