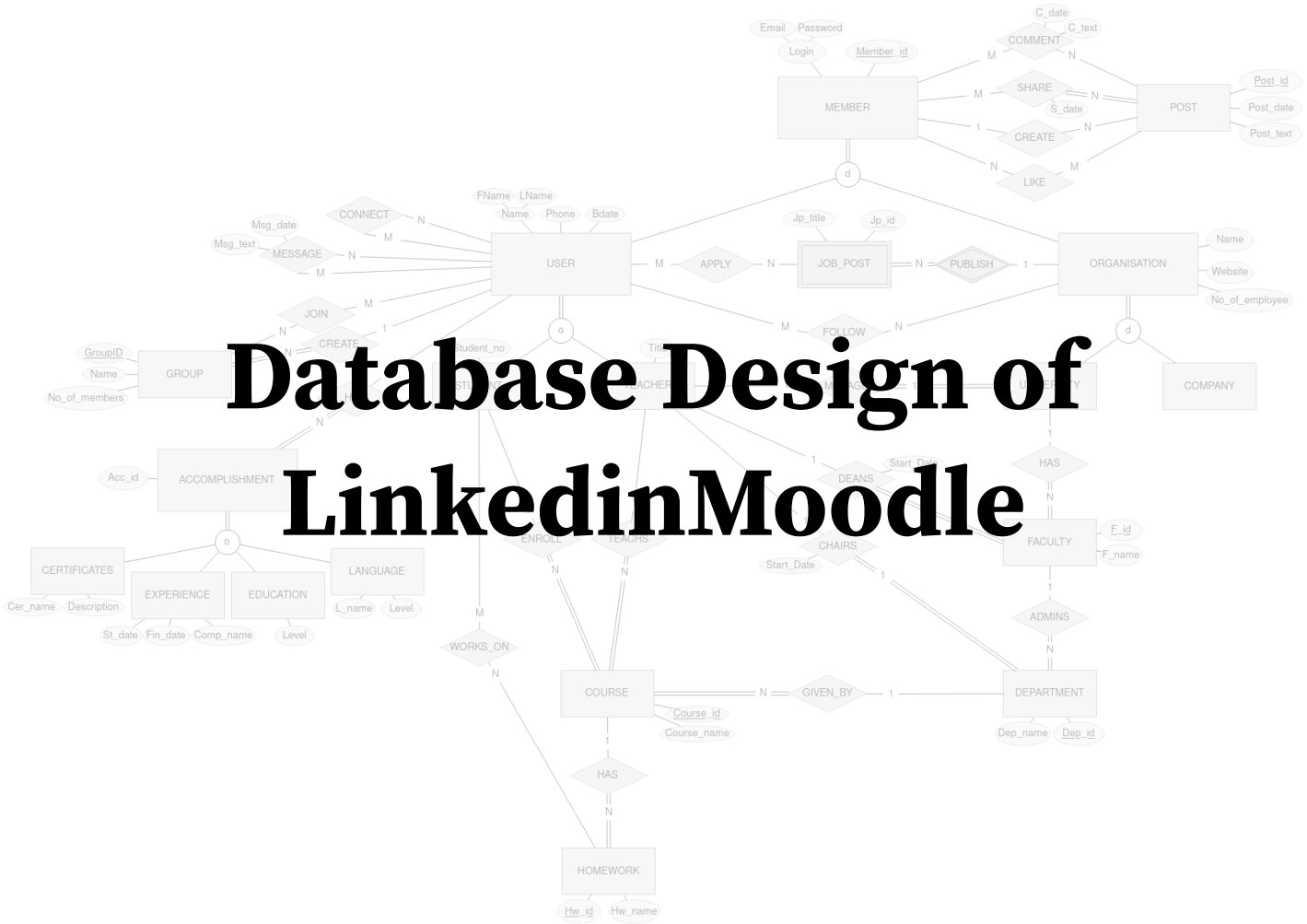
Database Management

Term Project



Database Design of LinkedinMoodle

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ANALYSIS

1) A brief explanation.

Linkedin:

Linkedin is a platform that is primarily used for professional networking and career development, and allows job seekers to post their CVs and employers to post jobs.

Moodle:

Moodle is used for blended learning, distance education, flipped classroom and other e-learning projects in schools, universities, workplaces and other sectors.

LinkedinMoodle:

LinkedInMoodle is a platform that is used for networking, career development and mass education.

2) Analysis report of each application.

a) Aim of Each Application

Linkedin:

LinkedIn allows members to create profiles and connect with each other in an online social network.

Members can invite anyone to become a connection. Linkedin can also be used to join groups, publish job postings, post photos and videos and other contents.

Moodle:

Moodle used to create websites with online courses for educators and students to achieve learning goals. Moodle allows for extending learning environments using community-sourced plugins.

LinkedinMoodle:

LinkedInMoodle is a platform that integrates the networking and career development part of the Linkedin and education/learning/classroom part of the Moodle platform.

b) Main Entities

Linkedin:

MEMBER

ORGANIZATION

CONNECTION

BACKGROUND

PROFILE

GROUP

Moodle:

COURSES

HOMEWORK

EXAM

STUDENT

TEACHER

LinkedinMoodle:

MEMBER

POST

GROUP

ACCOMPLISHMENT

COURSE

HOMEWORK

FACULTY

DEPARTMENT

c) Characteristics Of Each Entity

Linkedin:

ORGANIZATIONS:

- OrganizationId
- OrganizationName

CONNECTIONS:

- ConnectionId
- FirstProfile
- SecondProfile

- DateOfConnection

BACKGROUND:

- SkillsId
- ExperiencesId
- DateUpdated

PROFILE:

- ProfileId
- SchoolName
- CompanyName
- DateCreated

GROUPS:

- GroupId
- GroupOwner
- GroupName
- GroupDescription
- StartDate

Moodle:

COURSES:

- CourseId
- CourseOwnerId
- CourseName

HOMEWORK:

- HomeworkId
- HomeworkCourse

EXAMS:

- ExamId
- ExamCourse

STUDENT:

- StudentId
- RegDate
- LoginName
- Password
- FirstLastName

TEACHER:

- TeacherId
- Title

- RegDate
- LoginName
- Password
- FirstLastName

LinkedinMoodle:

MEMBER:

- Member_id
- Email
- Password

POST:

- Post_id
- Post_date
- Post_text

GROUP:

- GroupID
- Name
- No_of_members

ACCOMPLISHMENT:

- Acc_id

COURSE:

- Course_id
- Course_name

HOMEWORK:

- Hw_id
- Hw_name

DEPARTMENT:

- Dep_id
- Dep_name

FACULTY:

- F_id
- F_name

JOB_POST:

- Jp_id
- Jp_title

d) Relationships Exist Among The Entities

Linkedin:

PROFILE CREATE ORGANIZATION

PROFILE CAN CONNECTION

PROFILE HAS BACKGROUND

PROFILE CREATE GROUP

Moodle:

COURSES GIVES HOMEWORK

STUDENTS TAKES EXAMS

STUDENTS ENROLLS COURSES

LinkedinMoodle:

MEMBER LIKE POST

MEMBER SHARE POST

MEMBER COMMENT POST

MEMBER CREATE POST

USER JOIN GROUP

USER CREATE GROUP

USER CONNECT USER

USER MESSAGE USER

USER HAS ACCOMPLISHMENT

USER APPLY JOB_POST

USER FOLLOW ORGANIZATION

STUDENT ENROLL COURSE

STUDENT WORK_ON HOMEWORK

TEACHER TEACHES COURSE

TEACHER MANAGES UNIVERSITY

TEACHER DEANS FACULTY

TEACHER CHAIRS DEPARTMENT

COURSE HAS HOMEWORK

COURSE GIVEN_BY DEPARTMENT

FACULTY ADMINS DEPARTMENT

ORGANIZATION PUBLISH JOB_POST

UNIVERSITY HAS FACULTY

e) Constraints and characteristic of entities

Linkedin:

- An ORGANIZATION belongs to a MEMBER
- A PROFILE can create at least one CONNECTION
- A CONNECTION belongs to a PROFILE
- A PROFILE can follow at least one PROFILE
- A PROFILE can be followed by many PROFILE
- A PROFILE have one BACKGROUND
- A PROFILE can join many GROUPS

Moodle:

- A COURSE can give many HOMEWORKS
- A COURSE can give many EXAMS
- A STUDENT can take many EXAMS

- A STUDENT can enroll many COURSES

LinkedinMoodle:

- A Member has to be a User or Organization.
- A Member has a member id, email and password.
- A Member can create any number of Posts.
- A Member can share a Post as much as they like.
- A Member can comment on a Post as much as they like.
- A Member can like any number of Posts.

- A Post has a post id, post date and post text.
- A Post can only be created by one Member.
- A Post can be commented by any number of Members.
- A Post can be shared by any number of Members.
- A Post can be liked by any number of Members.

- A User has to be a Student or Teacher.
- A User has a first and last name, birthday, phone, and member id.
- A User can join any number of Groups.
- A User can create any number of Groups.
- A User can apply to any number of Job Posts.
- A User can have any number of Accomplishments.
- A User can follow any number of Organizations.
- A User can connect to any number of Users.
- A User can message any number of Users.

- A Group has a name, group id, and number of members.
- A Group can only be created by only one User.
- A Group can let in any number of Users.

- An Organization has to be a University or Company.
- An Organization has a name, website and a number of workers.
- An Organization can publish any number of Job Posts.
- An Organization can be followed by any number of Users.

- A University can have any number of faculties.
- A University has to be managed only by one Teacher.

- A Faculty has a faculty id and faculty name.
- A Faculty has to be a part of one university.
- A Faculty has to have only one dean.
- A Faculty can administer any number of Departments.

- A Department has department name and department id.
- A Department has to have only one admin.
- A Department has to be chaired by only one Teacher.
- A Department can give any number of Courses.

- A Job Post has a job title and job id.
- A Job Post can be published by only one Organization.
- A Job Post has to be published by one Organization.
- A Job Post can be applied by more than one User.

- A Student has a student number.
- A Student can enroll in any number of Courses.
- A Student can work on any number of Homework.

- A Teacher has a title.
- A Teacher can teach any number of Courses.
- A Teacher can manage only one University.
- A Teacher can dean only one Faculty.
- A Teacher can be a chair of only one Department.

- A Course has a course id and course name.
- A Course can be given by only one Department.
- A Course has to have at least one enrolled Student.
- A Course has to have only one Teacher.
- A Course can contain any number of Homework.

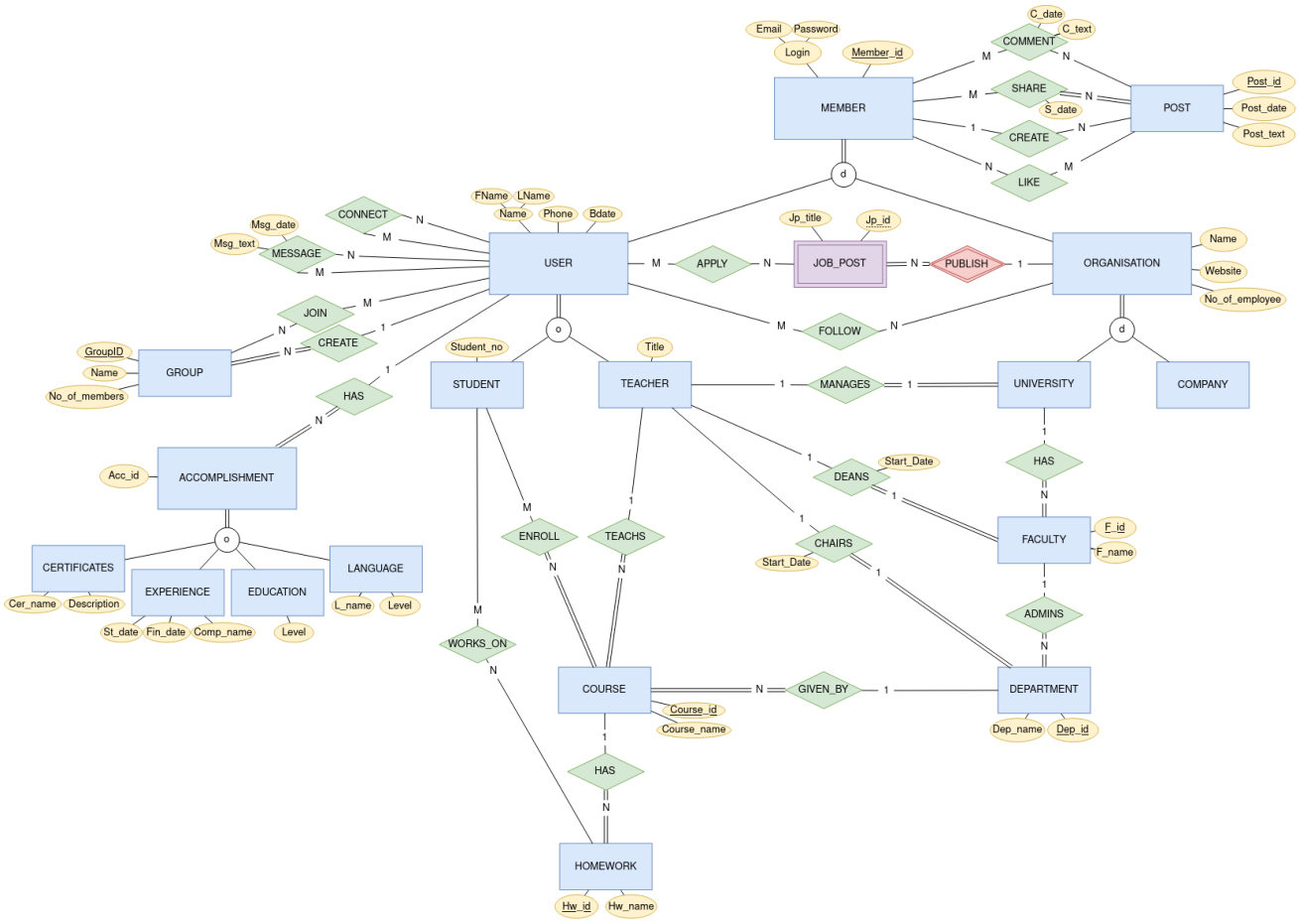
- A Homework has a homework id and homework name.
- A Homework can only be given by one Course.
- A Homework can be worked on by any number of Students.

- An Accomplishment has accomplishment id.

- An Accomplishment has to have at least one from Certificates, Experience, Education and Language.
- An Accomplishment can only belong to one User.

- A Certificate has a name and description
- An Experience has a company name, start date and finish date.
- An Education has a level.
- A Language has a language name and level.

ER Diagram



LOGICAL DESIGN

Iteration 1:

STEP 1: REGULAR ENTITY

POST(Post_id, Post_date, Post_text)
GROUP(GroupID, Name, No_of_members)
COURSE(Course_id, Course_name)
HOMEWORK(Hw_id, Hw_name)
DEPARTMENT(Dep_id, Dep_name)
FACULTY(F_id, F_name)

STEP 2: WEAK ENTITY

NO WEAK ENTITY

STEP 3: 1-1 RELATIONSHIP

NO 1-1 RELATIONSHIP

STEP 4: 1 TO N RELATIONSHIP

HOMEWORK(…, *Course_id*)

COURSE(…, *Dept_id*)

DEPARTMENT(…, F_id)

STEP 5: N TO M RELATIONSHIP

NO N-M RELATIONSHIP

STEP 6: MULTIVALUED ATTRIBUTE:

NO MULTIVALUED ATTRIBUTE

STEP 7: N-ARY RELATIONSHIP:

NO N-ARY RELATIONSHIP

STEP 8:

by using 8B

USER(Member_id, Email, Password, FName, LName, Phone, BDate)

ORGANIZATION(Member_id, Email, Password, Name, Website, No_of_employee)

by using 8D

ACCOMPLISHMENT(Acc_id, CertFlag, Cer_Name, Cer_Description, ExpFlag, Exp_St_date, Exp_Fin_Date, Exp_Comp_name, EduFlag, Edu_Level, LanFlag, L_name, Lan_level)

Iteration 2:

STEP 2:

JOB_POST(Jp_id, *Publisher_Member_id,* Jp_title)

STEP 4:

POST(…, *creator_memberID*)

GROUP(…, *creator_memberID*)

ACCOMPLISHMENT(…, *Member_id*)

STEP 5:

COMMENT(*Member_id, Post_id*, C_date, C_text)

SHARE(*Member_id, Post_id*, S_date)

LIKE(*Member_id, Post_id*)

FOLLOW(*User_memberID, Organisation_memberID*)

APPLY(*Jp_id, Publisher_Member_id, Applier_Member_id*)

JOIN(*Member_id, GroupID*)

CONNECT(*Member_id1, Member_id2*)

MESSAGE(*SenderID, ReceiverID*, Msg_date, Msg_text)

STEP 8:

by using 8D

USER(…, StudentFlag, Student_no, TeacherFlag, Title)

by using 8B

UNIVERSITY(Member_id, Email, Password, Name, Website, No_of_employee)

COMPANY(Member_id, Email, Password, Name, Website, No_of_employee)

Iteration 3:

STEP 3:

UNIVERSITY(…, Mgr_ID)

FACULTY(…, Dean_ID, Dean_StartDate)

DEPARTMENT(…, Chair_ID, Chair_StartDate)

STEP 4:

FACULTY(…, *University_ID*)

DEPARTMENT(…, *Faculty_id*)

COURSE(…, *Dep_id*)

HOMEWORK(…, *Course_id*)

STEP 5:

ENROLL(*Course_id, S_Member_id*)

WORKS_ON(*Hw_id, S_Member_id*)

Iteration 4:

STEP 4:

COURSE(…, *Teacher_ID*)

TABLES:

COURSE

Course_id	Course_Name	Dep_id	Teacher_ID

HOMEWORK

Hw_id	Hw_Name	Course_id

WORKS_ON

Hw_id	Member_id

ENROLL

Course_id	Member_id

DEPARTMENT

Dep_id	Dep_name	Chair_ID	Chair_StartDate	Faculty_id

FACULTY

F_id	F_name	Dean_ID	Dean_StartDate	University_id

COMPANY

Member_id	Email	Password	Name	Website	No_of_employee

UNIVERSITY

Member_id	Email	Password	Name	Website	No_of_employee	Mgr_ID

USER

Member_id	Email	Password	FName	LName	Phone	BDate	StudentFlag	Student_no	TeacherFlag	Title

COMMENT

Member_id	Post_id	C_date	C_text

SHARE

Member_id	Post_id	S_date

LIKE

Member_id	Post_id

FOLLOW

User_memberID	Organization_memberID

APPLY

Jp_id	Publisher_Member_id	Applier_Member_id

JOIN

Member_id	GroupID

CONNECT

Member_id1	Member_id2

MESSAGE

SenderID	ReceiverID	Msg_date	Msg_text

ACCOMPLISHMENT

Acc_id	Member_id	CertFlag	Cer_Name	Cer_Description	ExpFlag	Exp_St_date	Exp_Fin_Date	Exp_Comp_name	EduFlag	Edu_Level	LanFlag	L_name	Lan_level

GROUP

GroupID	Name	No_of_members

JOB_POST

Jp_id	Publisher_member_id	Jp_title

POST

Post_id	Post_date	Post_text	Creator_memberID

PHYSICAL MODEL

6) SQL scripts to create database and relational models.

```
CREATE DATABASE linkedmoodle
CREATE TABLE [user]
  (
     member_id    INT,
     email        VARCHAR (50) NOT NULL,
     [password]   VARCHAR (50) NOT NULL,
     fname        VARCHAR (50) NOT NULL,
     lname        VARCHAR (50) NOT NULL,
     phone        VARCHAR (50) NOT NULL,
     bdate        VARCHAR (50) NOT NULL,
     studentflag BINARY NOT NULL,
     student_no   VARCHAR (50),
     teacherflag BINARY NOT NULL,
     title        VARCHAR (50),
     PRIMARY KEY (member_id)
  );

CREATE TABLE university
  (
     member_id       INT,
     email           VARCHAR (50) NOT NULL,
     [password]      VARCHAR (50) NOT NULL,
     [name]          VARCHAR (50) NOT NULL,
     website         VARCHAR (50) NOT NULL,
     no_of_employee VARCHAR (50) NOT NULL,
     mgr_id          INT NOT NULL REFERENCES [user] (member_id),
     PRIMARY KEY (member_id),
  );

CREATE TABLE company
  (
     member_id       INT,
     email           VARCHAR (50) NOT NULL,
     [password]      VARCHAR (50) NOT NULL,
     [name]          VARCHAR (50) NOT NULL,
     website         VARCHAR (50) NOT NULL,
     no_of_employee VARCHAR (50) NOT NULL,
     PRIMARY KEY (member_id),
  );
```

```
CREATE TABLE faculty
  (
     f_id           INT,
     f_name         VARCHAR (50) NOT NULL,
     dean_id        INT NOT NULL REFERENCES [user] (member_id),
     dean_startdate DATE NOT NULL,
     university_id  INT NOT NULL REFERENCES [user] (member_id),
     PRIMARY KEY (f_id),
  );

CREATE TABLE department
  (
     dep_id          INT,
     dep_name        VARCHAR (50) NOT NULL,
     chair_id        INT NOT NULL REFERENCES [user] (member_id),
     chair_startdate DATE NOT NULL,
     faculty_id      INT NOT NULL REFERENCES [user] (member_id),
     PRIMARY KEY (dep_id),
  );

CREATE TABLE post
  (
     post_id          INT,
     post_date        DATE NOT NULL,
     post_text        VARCHAR (255) NOT NULL,
     creator_memberid INT NOT NULL REFERENCES [user] (member_id),
     PRIMARY KEY (post_id),
  );

CREATE TABLE comment
  (
     member_id INT,
     post_id   INT,
     c_date    DATE NOT NULL,
     c_text    VARCHAR (255) NOT NULL,
     PRIMARY KEY ( member_id, post_id ),
     FOREIGN KEY (post_id) REFERENCES post (post_id)
  );

CREATE TABLE share
  (
     member_id INT,
     post_id   INT,
```

```
    s_date    DATE NOT NULL,
    PRIMARY KEY ( member_id, post_id ),
    FOREIGN KEY (post_id) REFERENCES post (post_id),
    FOREIGN KEY (member_id) REFERENCES [user] (member_id)
  );

CREATE TABLE [like]
  (
    member_id INT,
    post_id   INT,
    PRIMARY KEY ( member_id, post_id ),
    FOREIGN KEY (post_id) REFERENCES post (post_id),
    FOREIGN KEY (member_id) REFERENCES [user] (member_id)
  );

CREATE TABLE follow
  (
    user_memberid         INT,
    organization_memberid INT,
    PRIMARY KEY ( user_memberid, organization_memberid ),
    FOREIGN KEY (user_memberid) REFERENCES [user] (member_id),
    FOREIGN KEY (organization_memberid) REFERENCES [user] (member_id)
  );

CREATE TABLE [connect]
  (
    member_id1 INT,
    member_id2 INT,
    PRIMARY KEY ( member_id1, member_id2 ),
    FOREIGN KEY (member_id1) REFERENCES [user] (member_id),
    FOREIGN KEY (member_id2) REFERENCES [user] (member_id)
  );

CREATE TABLE [message]
  (
    senderid   INT,
    receiverid INT,
    msg_date   DATE NOT NULL,
    msg_text   VARCHAR (255) NOT NULL,
    PRIMARY KEY ( senderid, receiverid ),
    FOREIGN KEY (senderid) REFERENCES [user] (member_id),
    FOREIGN KEY (receiverid) REFERENCES [user] (member_id)
  );
```

```
CREATE TABLE [group]
  (
     groupid       INT,
     [name]        VARCHAR (80) NOT NULL,
     no_of_members INT NOT NULL,
     PRIMARY KEY (groupid)
  );

CREATE TABLE [join]
  (
     member_id INT,
     groupid   INT,
     PRIMARY KEY ( member_id, groupid ),
     FOREIGN KEY (member_id) REFERENCES [user] (member_id),
     FOREIGN KEY (groupid) REFERENCES [group] (groupid)
  );

CREATE TABLE job_post
  (
     jp_id               INT,
     publisher_member_id INT NOT NULL,
     jp_title            VARCHAR (80) NOT NULL,
     PRIMARY KEY (jp_id),
     FOREIGN KEY (publisher_member_id) REFERENCES [user] (member_id),
  );

CREATE TABLE [apply]
  (
     jp_id               INT,
     publisher_member_id INT,
     applier_member_id   INT,
     PRIMARY KEY ( jp_id, publisher_member_id, applier_member_id ),
     FOREIGN KEY (jp_id) REFERENCES job_post (jp_id),
     FOREIGN KEY (publisher_member_id) REFERENCES [user] (member_id),
     FOREIGN KEY (applier_member_id) REFERENCES [user] (member_id)
  );

CREATE TABLE accomplishment
  (
     acc_id          INT,
     member_id       INT NOT NULL REFERENCES [user] (member_id),
     certflag        BINARY NOT NULL,
     cer_name        VARCHAR (80),
     cer_description VARCHAR (255),
```

```
    expflag          BINARY NOT NULL,
    exp_st_date      DATE,
    exp_fin_date     DATE,
    exp_comp_name    VARCHAR (80),
    eduflag          BINARY NOT NULL,
    edu_level        VARCHAR (50),
    lanflag          BINARY NOT NULL,
    l_name           VARCHAR (50),
    lan_level        VARCHAR (50),
    PRIMARY KEY (acc_id)
  );

CREATE TABLE course
  (
    course_id   INT,
    course_name VARCHAR (80),
    dep_id      INT NOT NULL,
    teacher_id  INT NOT NULL,
    PRIMARY KEY (course_id),
    FOREIGN KEY (dep_id) REFERENCES department (dep_id),
    FOREIGN KEY (teacher_id) REFERENCES [user] (member_id),
  );

CREATE TABLE homework
  (
    hw_id     INT,
    hw_name   VARCHAR (80),
    course_id INT NOT NULL,
    PRIMARY KEY (hw_id),
    FOREIGN KEY (course_id) REFERENCES course (course_id)
  );

CREATE TABLE works_on
  (
    hw_id     INT,
    member_id INT,
    PRIMARY KEY ( hw_id, member_id ),
    FOREIGN KEY (hw_id) REFERENCES homework (hw_id),
    FOREIGN KEY (member_id) REFERENCES [user] (member_id),
  );

CREATE TABLE enroll
  (
    course_id INT,
```

```
    member_id INT,
    PRIMARY KEY ( course_id, member_id ),
    FOREIGN KEY (course_id) REFERENCES course (course_id),
    FOREIGN KEY (member_id) REFERENCES [user] (member_id),
);
```

7) SQL scripts to populate databases.

```
-- USER

INSERT INTO[USER](Member_id, Email, [Password], FName, LName, Phone, BDate, StudentFlag, Student_no, TeacherFlag) VALUES (1,
'birOgr@gmail.com', '111111', 'Kemal', 'Sezgen', '05075466199', '24-08-1999', 1, '05170000120', 0);

INSERT INTO[USER](Member_id, Email, [Password], FName, LName, Phone, BDate, StudentFlag, TeacherFlag, Title) VALUES (2, 'ikiTea@gmail.com',
'222222', 'Ahmet', 'Arabacı', '05318956632', '21-02-1982', 0, 1, 'Asistan');

INSERT INTO[USER](Member_id, Email, [Password], FName, LName, Phone, BDate, StudentFlag, Student_no, TeacherFlag) VALUES (3,
'ucOgr@gmail.com', '333333', 'Erdem', 'Gazi', '05558997142', '01-03-1997', 1, '05170000100', 0);

INSERT INTO[USER](Member_id, Email, [Password], FName, LName, Phone, BDate, StudentFlag, Student_no, TeacherFlag) VALUES (4,
'dortOgr@gmail.com', '444444', 'Cem', 'Ulus', '05056632625', '11-11-1998', 1, '05170000490', 0);

INSERT INTO[USER](Member_id, Email, [Password], FName, LName, Phone, BDate, StudentFlag, TeacherFlag, Title) VALUES (5,
'besTea@gmail.com', '555555', 'Yunus', 'Emre', '05421591515', '22-12-1972', 0, 1, 'Doçent');

INSERT INTO[USER](Member_id, Email, [Password], FName, LName, Phone, BDate, StudentFlag, Student_no, TeacherFlag) VALUES (6,
'altiOgr@gmail.com', '666666', 'Arda', 'Turan', '05359876543', '15-08-1999', 1, '05170000101', 0);

INSERT INTO[USER](Member_id, Email, [Password], FName, LName, Phone, BDate, StudentFlag, Student_no, TeacherFlag) VALUES (7,
'yediOgr@gmail.com', '777777', 'Selin', 'Yardımcı', '05542583614', '04-02-1999', 1, '05170000111', 0);

INSERT INTO[USER](Member_id, Email, [Password], FName, LName, Phone, BDate, StudentFlag, Student_no, TeacherFlag) VALUES (8,
'sekizOgr@gmail.com', '888888', 'Gürkan', 'Yalçın', '05552221133', '24-08-1999', 1, '05190000120', 0);

INSERT INTO[USER](Member_id, Email, [Password], FName, LName, Phone, BDate, StudentFlag, TeacherFlag, Title) VALUES (9,
'dokuzTea@gmail.com', '999999', 'Mehmet', 'Topal', '05456665544', '21-02-1952', 0, 1, 'Profesör');

INSERT INTO[USER](Member_id, Email, [Password], FName, LName, Phone, BDate, StudentFlag, Student_no, TeacherFlag) VALUES (10,
'onOgr@gmail.com', '101010', 'Sergen', 'Yıldırım', '05336669988', '01-03-1997', 1, '05190000100', 0);

INSERT INTO[USER](Member_id, Email, [Password], FName, LName, Phone, BDate, StudentFlag, Student_no, TeacherFlag) VALUES (11,
'onBirOgr@gmail.com', '111111', 'Okan', 'Can', '05050550505', '11-11-1998', 1, '05190000490', 0);

INSERT INTO[USER](Member_id, Email, [Password], FName, LName, Phone, BDate, StudentFlag, TeacherFlag, Title) VALUES (12,
'onİkiTea@gmail.com', '121212', 'Sabri', 'Sarıoğlu', '05079998877', '22-12-1972', 0, 1, 'Doçent');

INSERT INTO[USER](Member_id, Email, [Password], FName, LName, Phone, BDate, StudentFlag, Student_no, TeacherFlag) VALUES (13,
'onUcOgr@gmail.com', '131313', 'Naz', 'Çiftçi', '05066665544', '15-08-1999', 1, '05190000191', 0);

INSERT INTO[USER](Member_id, Email, [Password], FName, LName, Phone, BDate, StudentFlag, Student_no, TeacherFlag) VALUES (14,
'onDortOgr@gmail.com', '141414', 'Simge', 'Güzel', '05051112233', '04-02-1999', 1, '05200000121', 0);

INSERT INTO[USER](Member_id, Email, [Password], FName, LName, Phone, BDate, StudentFlag, Student_no, TeacherFlag) VALUES (15,
'onBesOgr@gmail.com', '151515', 'Furkan', 'Turan', '05552221112', '24-08-1999', 1, '05150000120', 0);

INSERT INTO[USER](Member_id, Email, [Password], FName, LName, Phone, BDate, StudentFlag, TeacherFlag, Title) VALUES (16,
'onAltiTea@gmail.com', '161616', 'Fatma', 'Bayık', '05456612544', '21-06-1992', 0, 1, 'Araştırma Görevlisi');

INSERT INTO[USER](Member_id, Email, [Password], FName, LName, Phone, BDate, StudentFlag, Student_no, TeacherFlag) VALUES (17,
'onYediOgr@gmail.com', '171717', 'Tuncay', 'Kahraman', '05336129988', '01-06-1997', 1, '05160000160', 0);

INSERT INTO[USER](Member_id, Email, [Password], FName, LName, Phone, BDate, StudentFlag, Student_no, TeacherFlag) VALUES (18,
'onSekizOgr@gmail.com', '181818', 'Mehmet', 'Ünalır', '05050512505', '11-01-1998', 1, '05210000490', 0);

INSERT INTO[USER](Member_id, Email, [Password], FName, LName, Phone, BDate, StudentFlag, TeacherFlag, Title) VALUES (19,
'onDokuzTea@gmail.com', '191919', 'Fernando', 'Muslera', '05079912877', '22-02-1972', 0, 1, 'Profesör');

INSERT INTO[USER](Member_id, Email, [Password], FName, LName, Phone, BDate, StudentFlag, Student_no, TeacherFlag) VALUES (20,
'yirmiOgr@gmail.com', '202020', 'Ersin', 'Destanoğlu', '05066612544', '05-08-1999', 1, '05210000091', 0);

INSERT INTO[USER](Member_id, Email, [Password], FName, LName, Phone, BDate, StudentFlag, Student_no, TeacherFlag) VALUES (21,
'yirmiBirOgr@gmail.com', '212121', 'Meral', 'Dönmez', '05051212248', '01-02-1999', 1, '05210000032', 0);

INSERT INTO[USER](Member_id, Email, [Password], FName, LName, Phone, BDate, StudentFlag, Student_no, TeacherFlag) VALUES (22,
'yirmiİkiOgr@gmail.com', '222222', 'Çoruh', 'Sönmez', '05075466198', '24-08-199', 1, '05180000101', 0);

INSERT INTO[USER](Member_id, Email, [Password], FName, LName, Phone, BDate, StudentFlag, TeacherFlag, Title) VALUES (23,
'yirmiUcTea@gmail.com', '232323', 'Mustafa', 'Terzi', '05318956612', '21-02-1981', 0, 1, 'Asistan');
```

INSERT INTO[USER](Member_id, Email, [Password], FName, LName, Phone, BDate, StudentFlag, Student_no, TeacherFlag) VALUES (24, 'yirmiDortOgr@gmail.com', '242424', 'Enes', 'Orhan', '05558997132', '01-03-1996', 1, '05180000102', 0);

INSERT INTO[USER](Member_id, Email, [Password], FName, LName, Phone, BDate, StudentFlag, Student_no, TeacherFlag) VALUES (25, 'yirmiBesOgr@gmail.com', '252525', 'Mehmet', 'Öztürk', '05056632624', '11-11-1997', 1, '05180000103', 0);

INSERT INTO[USER](Member_id, Email, [Password], FName, LName, Phone, BDate, StudentFlag, TeacherFlag, Title) VALUES (26, 'yirmiAltiTea@gmail.com', '262626', 'Mücahit', 'Cengiz', '05421591514', '22-12-1970', 0, 1, 'Doçent');

INSERT INTO[USER](Member_id, Email, [Password], FName, LName, Phone, BDate, StudentFlag, Student_no, TeacherFlag) VALUES (27, 'yirmiYediOgr@gmail.com', '272727', 'Ferhat', 'Karslı', '05359876542', '15-08-1998', 1, '05180000104', 0);

INSERT INTO[USER](Member_id, Email, [Password], FName, LName, Phone, BDate, StudentFlag, Student_no, TeacherFlag) VALUES (28, 'yirmiSekizOgr@gmail.com', '282828', 'Mahir', 'Cümbüş', '05542583613', '04-02-1998', 1, '05180000105', 0);

INSERT INTO[USER](Member_id, Email, [Password], FName, LName, Phone, BDate, StudentFlag, Student_no, TeacherFlag) VALUES (29, 'yirmiDokuzOgr@gmail.com', '292929', 'Zeliha', 'Kaya', '05552221123', '24-08-1998', 1, '05180000106', 0);

INSERT INTO[USER](Member_id, Email, [Password], FName, LName, Phone, BDate, StudentFlag, TeacherFlag, Title) VALUES (30, 'otuzTea@gmail.com', '303030', 'Ahmet', 'Topçu', '05456665543', '21-02-1951', 0, 1, 'Profesör');

INSERT INTO[USER](Member_id, Email, [Password], FName, LName, Phone, BDate, StudentFlag, Student_no, TeacherFlag) VALUES (31, 'otuzBirOgr@gmail.com', '313131', 'Rıdvan', 'Yılmaz', '05336669987', '01-03-1996', 1, '05180000107', 0);

INSERT INTO[USER](Member_id, Email, [Password], FName, LName, Phone, BDate, StudentFlag, Student_no, TeacherFlag) VALUES (32, 'otuzİkiOgr@gmail.com', '323232', 'Montero', 'Kasap', '05050550504', '11-11-1996', 1, '05180000108', 0);

INSERT INTO[USER](Member_id, Email, [Password], FName, LName, Phone, BDate, StudentFlag, TeacherFlag, Title) VALUES (33, 'otuzUcTea@gmail.com', '333333', 'Uğurcan', 'Kaleci', '05079998876', '22-12-1970', 0, 1, 'Doçent');

INSERT INTO[USER](Member_id, Email, [Password], FName, LName, Phone, BDate, StudentFlag, Student_no, TeacherFlag) VALUES (34, 'otuzDortOgr@gmail.com', '343434', 'Ekin', 'Özyurtlu', '05066665543', '15-08-1998', 1, '05180000109', 0);

INSERT INTO[USER](Member_id, Email, [Password], FName, LName, Phone, BDate, StudentFlag, Student_no, TeacherFlag) VALUES (35, 'otuzBesOgr@gmail.com', '353535', 'Zehra', 'Yiğit', '05051112232', '04-02-1998', 1, '05120000121', 0);

-- UNIVERSITY

INSERT INTO UNIVERSITY VALUES(100, 'egeUni@ege.edu.tr', 'egeuni123', 'Ege Üniversitesi', 'www.egeuniversitesi.com', '2000', 9);

INSERT INTO UNIVERSITY VALUES(101, 'itu@itu.edu.tr', 'itu123', 'İstanbul Teknik Üniversitesi', 'www.itu.com', '3000', 19);

-- COMPANY

INSERT INTO COMPANY VALUES(102, 'vestel@iletisim.com.tr', 'vestel123', 'Vestel', 'www.vestel.com', '200');

INSERT INTO COMPANY VALUES(103, 'arcelik@iletisim.com.tr', 'arcelik123', 'Arçelik', 'www.arcelik.com', '300');

INSERT INTO COMPANY VALUES(104, 'yemeksepeti@iletisim.com.tr', 'yemeksepeti123', 'Yemek Sepeti', 'www.yemeksepeti.com', '350');

-- MESSAGE

INSERT INTO[MESSAGE] (SenderID, ReceiverID, Msg_date, Msg_text) VALUES (1, 2, '01-02-2022', 'Merhaba, nasılsınız? Umarım iyisinizdir...');

INSERT INTO[MESSAGE] (SenderID, ReceiverID, Msg_date, Msg_text) VALUES (2, 3, '01-02-2022', 'Merhaba, nasılsınız? Umarım iyisinizdir...');

INSERT INTO[MESSAGE] (SenderID, ReceiverID, Msg_date, Msg_text) VALUES (3, 1, '01-02-2022', 'Merhaba, nasılsınız? Umarım iyisinizdir...');

INSERT INTO[MESSAGE] (SenderID, ReceiverID, Msg_date, Msg_text) VALUES (11, 22, '01-02-2022', 'Merhaba, nasılsınız? Umarım iyisinizdir...');

INSERT INTO[MESSAGE] (SenderID, ReceiverID, Msg_date, Msg_text) VALUES (14, 25, '01-02-2022', 'Merhaba, nasılsınız? Umarım iyisinizdir...');

INSERT INTO[MESSAGE] (SenderID, ReceiverID, Msg_date, Msg_text) VALUES (13, 12, '01-02-2022', 'Merhaba, nasılsınız? Umarım iyisinizdir...');

INSERT INTO[MESSAGE] (SenderID, ReceiverID, Msg_date, Msg_text) VALUES (19, 20, '01-02-2022', 'Merhaba, nasılsınız? Umarım iyisinizdir...');

INSERT INTO[MESSAGE] (SenderID, ReceiverID, Msg_date, Msg_text) VALUES (8, 28, '01-02-2022', 'Merhaba, nasılsınız? Umarım iyisinizdir...');

INSERT INTO[MESSAGE] (SenderID, ReceiverID, Msg_date, Msg_text) VALUES (33, 34, '01-02-2022', 'Merhaba, nasılsınız? Umarım iyisinizdir...');

INSERT INTO[MESSAGE] (SenderID, ReceiverID, Msg_date, Msg_text) VALUES (1, 34, '01-02-2022', 'Merhaba, nasılsınız? Umarım iyisinizdir...');

INSERT INTO[MESSAGE] (SenderID, ReceiverID, Msg_date, Msg_text) VALUES (6, 7, '01-02-2022', 'Merhaba, nasılsınız? Umarım iyisinizdir...');

```
-- CONNECT
INSERT INTO[CONNECT] (Member_id1, Member_id2) VALUES (1,2);
INSERT INTO[CONNECT] (Member_id1, Member_id2) VALUES (1,3);
INSERT INTO[CONNECT] (Member_id1, Member_id2) VALUES (1,4);
INSERT INTO[CONNECT] (Member_id1, Member_id2) VALUES (1,5);
INSERT INTO[CONNECT] (Member_id1, Member_id2) VALUES (11,12);
INSERT INTO[CONNECT] (Member_id1, Member_id2) VALUES (12,15);
INSERT INTO[CONNECT] (Member_id1, Member_id2) VALUES (19,20);
INSERT INTO[CONNECT] (Member_id1, Member_id2) VALUES (4,2);
INSERT INTO[CONNECT] (Member_id1, Member_id2) VALUES (5,2);
INSERT INTO[CONNECT] (Member_id1, Member_id2) VALUES (6,12);
INSERT INTO[CONNECT] (Member_id1, Member_id2) VALUES (1,12);
INSERT INTO[CONNECT] (Member_id1, Member_id2) VALUES (33,22);
INSERT INTO[CONNECT] (Member_id1, Member_id2) VALUES (14,22);
INSERT INTO[CONNECT] (Member_id1, Member_id2) VALUES (30,1);
INSERT INTO[CONNECT] (Member_id1, Member_id2) VALUES (30,2);

-- GROUP
INSERT INTO[GROUP] (GroupID, [Name], No_of_members) VALUES (1, 'Yazılımcılar', 10);
INSERT INTO[GROUP] (GroupID, [Name], No_of_members) VALUES (2, 'JavaScript Developers', 15);
INSERT INTO[GROUP] (GroupID, [Name], No_of_members) VALUES (3, 'Tıp Dünyası', 10);
INSERT INTO[GROUP] (GroupID, [Name], No_of_members) VALUES (4, 'Eczacılar Birliği Grubu', 15);
INSERT INTO[GROUP] (GroupID, [Name], No_of_members) VALUES (5, 'İş Arayanlar', 25);

-- JOIN
INSERT INTO[JOIN] (GroupID, Member_id) VALUES (1, 1);
INSERT INTO[JOIN] (GroupID, Member_id) VALUES (1, 2);
INSERT INTO[JOIN] (GroupID, Member_id) VALUES (1, 13);
INSERT INTO[JOIN] (GroupID, Member_id) VALUES (2, 4);
INSERT INTO[JOIN] (GroupID, Member_id) VALUES (2, 5);
INSERT INTO[JOIN] (GroupID, Member_id) VALUES (2, 6);
INSERT INTO[JOIN] (GroupID, Member_id) VALUES (3, 7);
INSERT INTO[JOIN] (GroupID, Member_id) VALUES (3, 8);
INSERT INTO[JOIN] (GroupID, Member_id) VALUES (3, 9);
INSERT INTO[JOIN] (GroupID, Member_id) VALUES (4, 10);
INSERT INTO[JOIN] (GroupID, Member_id) VALUES (4, 11);
INSERT INTO[JOIN] (GroupID, Member_id) VALUES (4, 12);
INSERT INTO[JOIN] (GroupID, Member_id) VALUES (5, 33);
INSERT INTO[JOIN] (GroupID, Member_id) VALUES (5, 32);
INSERT INTO[JOIN] (GroupID, Member_id) VALUES (5, 31);
```

-- ACCOMPLISHMENT

INSERT INTO ACCOMPLISHMENT(Acc_id, Member_id, CertFlag, Cer_name, Cer_description, ExpFlag, Exp_St_Date, Exp_fin_Date, Exp_Comp_name, EduFlag, Edu_Level, LanFlag, L_name, Lan_level) VALUES

(1, 1, 1, 'Makine öğrenmesi sertifikası', 'Makine Öğrenmesi alanında 1 aylık bir eğitim tamamladı.', 1, '01-08-2021', '02-02-2022', 'Arçelik', 0, null, 1, 'English', 'Advanced')

INSERT INTO ACCOMPLISHMENT(Acc_id, Member_id, CertFlag, Cer_name, Cer_description, ExpFlag, Exp_St_Date, Exp_fin_Date, Exp_Comp_name, EduFlag, Edu_Level, LanFlag, L_name, Lan_level) VALUES

(2, 3, 1, 'Python Eğitimi', 'Python ile ileri düzeyde eğitim aldı.', 1, '01-08-2021', '02-02-2022', 'Getir', 0, null, 1, 'English', 'Advanced')

INSERT INTO ACCOMPLISHMENT(Acc_id, Member_id, CertFlag, Cer_name, Cer_description, ExpFlag, Exp_St_Date, Exp_fin_Date, Exp_Comp_name, EduFlag, Edu_Level, LanFlag, L_name, Lan_level) VALUES

(3, 4, 1, 'Görüntü İşleme', 'Görüntü İşleme alanında 1 aylık bir eğitim tamamladı.', 1, '01-08-2021', '02-02-2022', 'Apple', 1, 'Yüksek Lisans', 1, 'English', 'Advanced')

INSERT INTO ACCOMPLISHMENT(Acc_id, Member_id, CertFlag, Cer_name, Cer_description, ExpFlag, Exp_St_Date, Exp_fin_Date, Exp_Comp_name, EduFlag, Edu_Level, LanFlag, L_name, Lan_level) VALUES

(4, 6, 0, null, null, 1, '01-08-2021', '02-02-2022', 'YemekSepeti', 0, null, 1, 'Spanish', 'Advanced')

INSERT INTO ACCOMPLISHMENT(Acc_id, Member_id, CertFlag, Cer_name, Cer_description, ExpFlag, Exp_St_Date, Exp_fin_Date, Exp_Comp_name, EduFlag, Edu_Level, LanFlag, L_name, Lan_level) VALUES

(5, 7, 0, null, null, 0, null, null, null, 0, null, 1, 'English', 'Advanced')

INSERT INTO ACCOMPLISHMENT(Acc_id, Member_id, CertFlag, Cer_name, Cer_description, ExpFlag, Exp_St_Date, Exp_fin_Date, Exp_Comp_name, EduFlag, Edu_Level, LanFlag, L_name, Lan_level) VALUES

(6, 27, 1, 'Android Geliştiricisi Sertifikası', 'Androidin temellerini öğrendi.', 1, '01-08-2021', '02-02-2022', 'PeakGames', 0, null, 1, 'English', 'Upper intermediate')

INSERT INTO ACCOMPLISHMENT(Acc_id, Member_id, CertFlag, Cer_name, Cer_description, ExpFlag, Exp_St_Date, Exp_fin_Date, Exp_Comp_name, EduFlag, Edu_Level, LanFlag, L_name, Lan_level) VALUES

(7, 28, 1, 'Makine öğrenmesi sertifikası', 'Makine Öğrenmesi alanında 1 aylık bir eğitim tamamladı.', 0, null, null, null, 0, null, 1, 'English', 'Upper intermediate')

-- JOB_POST

INSERT INTO JOB_POST(Jp_id, Publisher_member_id, Jp_title) VALUES (1, 33, 'Data Scientist aranıyor.');

INSERT INTO JOB_POST(Jp_id, Publisher_member_id, Jp_title) VALUES (2, 33, 'Android Developer aranıyor.');

INSERT INTO JOB_POST(Jp_id, Publisher_member_id, Jp_title) VALUES (3, 30, 'Data Scientist aranıyor.');

INSERT INTO JOB_POST(Jp_id, Publisher_member_id, Jp_title) VALUES (4, 30, 'Frontend Developer aranıyor.');

INSERT INTO JOB_POST(Jp_id, Publisher_member_id, Jp_title) VALUES (5, 26, 'Backend Developer aranıyor.');

-- APPLY

INSERT INTO [APPLY](Jp_id, Publisher_member_id, Applier_member_id) VALUES (1, 33, 1);

INSERT INTO [APPLY](Jp_id, Publisher_member_id, Applier_member_id) VALUES (2, 33, 3);

INSERT INTO [APPLY](Jp_id, Publisher_member_id, Applier_member_id) VALUES (3, 30, 4);

INSERT INTO [APPLY](Jp_id, Publisher_member_id, Applier_member_id) VALUES (4, 30, 31);

INSERT INTO [APPLY](Jp_id, Publisher_member_id, Applier_member_id) VALUES (5, 26, 32);

```
-- POST
INSERT INTO POST(Post_id, Post_date, Post_text, creator_memberID)
VALUES (1, '01-01-2022', 'Herkese mutlu yıllar dilerim.', 1);

INSERT INTO POST(Post_id, Post_date, Post_text, creator_memberID)
VALUES (2, '01-01-2022', 'Tüm öğrencilerime iyi yıllar!!', 2);

INSERT INTO POST(Post_id, Post_date, Post_text, creator_memberID)
VALUES (3, '05-11-2021', 'İş görüşmelerinde yapılmaması gerekenler...', 3);

INSERT INTO POST(Post_id, Post_date, Post_text, creator_memberID)
VALUES (4, '12-08-2021', 'Staj maceram', 4);

INSERT INTO POST(Post_id, Post_date, Post_text, creator_memberID)
VALUES (5, '12-08-2021', 'Python Trickleri: 1-...', 5);

INSERT INTO POST(Post_id, Post_date, Post_text, creator_memberID)
VALUES (6, '12-09-2021', 'Android Studio hataları', 6);

-- LIKE
INSERT INTO [LIKE](Member_id, Post_id) VALUES (1,1);
INSERT INTO [LIKE](Member_id, Post_id) VALUES (1,2);
INSERT INTO [LIKE](Member_id, Post_id) VALUES (1,3);
INSERT INTO [LIKE](Member_id, Post_id) VALUES (2,2);
INSERT INTO [LIKE](Member_id, Post_id) VALUES (2,3);
INSERT INTO [LIKE](Member_id, Post_id) VALUES (2,4);
INSERT INTO [LIKE](Member_id, Post_id) VALUES (22,1);
INSERT INTO [LIKE](Member_id, Post_id) VALUES (22,2);
INSERT INTO [LIKE](Member_id, Post_id) VALUES (33,1);
INSERT INTO [LIKE](Member_id, Post_id) VALUES (33,5);
INSERT INTO [LIKE](Member_id, Post_id) VALUES (33,6);
INSERT INTO [LIKE](Member_id, Post_id) VALUES (34,1);
INSERT INTO [LIKE](Member_id, Post_id) VALUES (34,3);
INSERT INTO [LIKE](Member_id, Post_id) VALUES (31,3);
INSERT INTO [LIKE](Member_id, Post_id) VALUES (31,1);
INSERT INTO [LIKE](Member_id, Post_id) VALUES (21,2);
INSERT INTO [LIKE](Member_id, Post_id) VALUES (22,3);
INSERT INTO [LIKE](Member_id, Post_id) VALUES (22,4);
```

-- SHARE

INSERT INTO SHARE(Member_id, Post_id, S_date) VALUES (1,1, '02-02-2022');

INSERT INTO SHARE(Member_id, Post_id, S_date) VALUES (1,2, '02-02-2022');

INSERT INTO SHARE(Member_id, Post_id, S_date) VALUES (1,3, '02-02-2022');

INSERT INTO SHARE(Member_id, Post_id, S_date) VALUES (2,2, '02-02-2022');

INSERT INTO SHARE(Member_id, Post_id, S_date) VALUES (2,3, '02-02-2022');

INSERT INTO SHARE(Member_id, Post_id, S_date) VALUES (2,4, '02-02-2022');

INSERT INTO SHARE(Member_id, Post_id, S_date) VALUES (22,1, '02-02-2022');

INSERT INTO SHARE(Member_id, Post_id, S_date) VALUES (22,2, '02-02-2022');

INSERT INTO SHARE(Member_id, Post_id, S_date) VALUES (33,5, '02-02-2022');

INSERT INTO SHARE(Member_id, Post_id, S_date) VALUES (33,6, '02-02-2022');

INSERT INTO SHARE(Member_id, Post_id, S_date) VALUES (34,1, '02-02-2022');

INSERT INTO SHARE(Member_id, Post_id, S_date) VALUES (34,3, '02-02-2022');

INSERT INTO SHARE(Member_id, Post_id, S_date) VALUES (31,3, '02-02-2022');

INSERT INTO SHARE(Member_id, Post_id, S_date) VALUES (31,1, '02-02-2022');

INSERT INTO SHARE(Member_id, Post_id, S_date) VALUES (21,2, '02-02-2022');

INSERT INTO SHARE(Member_id, Post_id, S_date) VALUES (22,3, '02-02-2022');

INSERT INTO SHARE(Member_id, Post_id, S_date) VALUES (22,4, '02-02-2022');

-- COMMENT

INSERT INTO COMMENT(Member_id, Post_id, C_date, C_text) VALUES (1,1, '02-02-2022', 'Teşekkürler');

INSERT INTO COMMENT(Member_id, Post_id, C_date, C_text) VALUES (1,2, '02-02-2022', 'Mutlu Yıllar..');

INSERT INTO COMMENT(Member_id, Post_id, C_date, C_text) VALUES (1,3, '02-02-2022', 'Sağolun!');

INSERT INTO COMMENT(Member_id, Post_id, C_date, C_text) VALUES (2,2, '02-02-2022', 'Mutlu yıllar size de.');

INSERT INTO COMMENT(Member_id, Post_id, C_date, C_text) VALUES (2,3, '02-02-2022', 'Harika bilgiler');

INSERT INTO COMMENT(Member_id, Post_id, C_date, C_text) VALUES (2,4, '02-02-2022', 'Teşekkürler');

INSERT INTO COMMENT(Member_id, Post_id, C_date, C_text) VALUES (22,1, '02-02-2022', 'Mutlu Yıllar..');

INSERT INTO COMMENT(Member_id, Post_id, C_date, C_text) VALUES (22,2, '02-02-2022', 'Mutlu Yıllar..');

INSERT INTO COMMENT(Member_id, Post_id, C_date, C_text) VALUES (33,5, '02-02-2022', 'Teşekkürler');

INSERT INTO COMMENT(Member_id, Post_id, C_date, C_text) VALUES (33,6, '02-02-2022', 'Teşekkürler, çok işime yaradı');

INSERT INTO COMMENT(Member_id, Post_id, C_date, C_text) VALUES (34,1, '02-02-2022', 'Mutlu Yıllar..');

INSERT INTO COMMENT(Member_id, Post_id, C_date, C_text) VALUES (34,3, '02-02-2022', 'Teşekkürler, çok işime yaradı');

INSERT INTO COMMENT(Member_id, Post_id, C_date, C_text) VALUES (31,3, '02-02-2022', 'Teşekkürler, çok işime yaradı');

INSERT INTO COMMENT(Member_id, Post_id, C_date, C_text) VALUES (31,1, '02-02-2022', 'Mutlu Yıllar..');

INSERT INTO COMMENT(Member_id, Post_id, C_date, C_text) VALUES (21,2, '02-02-2022', 'Mutlu Yıllar..');

INSERT INTO COMMENT(Member_id, Post_id, C_date, C_text) VALUES (22,3, '02-02-2022', 'Efsane..');

INSERT INTO COMMENT(Member_id, Post_id, C_date, C_text) VALUES (22,4, '02-02-2022', 'Efsane..');

-- FOLLOW

INSERT INTO FOLLOW(User_memberID, Organization_memberID) VALUES (1,1);

INSERT INTO FOLLOW(User_memberID, Organization_memberID) VALUES (1,2);

INSERT INTO FOLLOW(User_memberID, Organization_memberID) VALUES (2,1);

INSERT INTO FOLLOW(User_memberID, Organization_memberID) VALUES (5,1);

INSERT INTO FOLLOW(User_memberID, Organization_memberID) VALUES (6,1);

INSERT INTO FOLLOW(User_memberID, Organization_memberID) VALUES (15,1);

INSERT INTO FOLLOW(User_memberID, Organization_memberID) VALUES (15,2);

INSERT INTO FOLLOW(User_memberID, Organization_memberID) VALUES (17,2);

INSERT INTO FOLLOW(User_memberID, Organization_memberID) VALUES (19,1);

INSERT INTO FOLLOW(User_memberID, Organization_memberID) VALUES (31,1);

-- FACULTY

INSERT INTO FACULTY(F_id, F_name, Dean_ID, Dean_StartDate, University_id) VALUES(1, 'Mühendislik Fakültesi', 30, '01-01-2020', 100);

INSERT INTO FACULTY(F_id, F_name, Dean_ID, Dean_StartDate, University_id) VALUES(2, 'Tıp Fakültesi', 33, '01-01-2021', 100);

INSERT INTO FACULTY(F_id, F_name, Dean_ID, Dean_StartDate, University_id) VALUES(3, 'Eczacılık Fakültesi', 26, '01-01-2019', 100);

INSERT INTO FACULTY(F_id, F_name, Dean_ID, Dean_StartDate, University_id) VALUES(4, 'Mühendislik Fakültesi', 19, '01-01-2020', 101);

-- DEPARTMENT

INSERT INTO DEPARTMENT(Dep_id, Dep_name, Chair_ID, Chair_StartDate, Faculty_id) VALUES(1, 'Computer Engineering', 5, '01-02-2019', 1)

INSERT INTO DEPARTMENT(Dep_id, Dep_name, Chair_ID, Chair_StartDate, Faculty_id) VALUES(2, 'Electronic Engineering', 12, '01-02-2019', 1)

INSERT INTO DEPARTMENT(Dep_id, Dep_name, Chair_ID, Chair_StartDate, Faculty_id) VALUES(3, 'Tıp', 9, '01-02-2019', 2)

INSERT INTO DEPARTMENT(Dep_id, Dep_name, Chair_ID, Chair_StartDate, Faculty_id) VALUES(4, 'Eczacılık Bölümü', 2, '01-04-2020', 3)

INSERT INTO DEPARTMENT(Dep_id, Dep_name, Chair_ID, Chair_StartDate, Faculty_id) VALUES(5, 'Electric Engineering', 36, '04-12-2018', 4)

-- COURSE

INSERT INTO COURSE(Course_id, Course_Name, Dep_id, Teacher_ID) VALUES (1, 'Bilgisayar Ağları', 1, 5)

INSERT INTO COURSE(Course_id, Course_Name, Dep_id, Teacher_ID) VALUES (2, 'Görüntü İşleme', 1, 5)

INSERT INTO COURSE(Course_id, Course_Name, Dep_id, Teacher_ID) VALUES (3, 'Termodinamik', 2, 12)

INSERT INTO COURSE(Course_id, Course_Name, Dep_id, Teacher_ID) VALUES (4, 'Electric', 2, 12)

INSERT INTO COURSE(Course_id, Course_Name, Dep_id, Teacher_ID) VALUES (5, 'Temel Tıp Bilimleri', 3, 9)

INSERT INTO COURSE(Course_id, Course_Name, Dep_id, Teacher_ID) VALUES (6, 'Kardiyoloji', 3, 9)

INSERT INTO COURSE(Course_id, Course_Name, Dep_id, Teacher_ID) VALUES (7, 'Farmakoloji', 4, 2)

INSERT INTO COURSE(Course_id, Course_Name, Dep_id, Teacher_ID) VALUES (8, 'Patofizyoloji', 4, 2)

INSERT INTO COURSE(Course_id, Course_Name, Dep_id, Teacher_ID) VALUES (9, 'Termodinamik', 5, 36)

INSERT INTO COURSE(Course_id, Course_Name, Dep_id, Teacher_ID) VALUES (10, 'Electric', 5, 36)

```
-- ENROLL
INSERT INTO ENROLL(Course_id, Member_id) VALUES (1, 1);
INSERT INTO ENROLL(Course_id, Member_id) VALUES (2, 1);
INSERT INTO ENROLL(Course_id, Member_id) VALUES (1, 3);
INSERT INTO ENROLL(Course_id, Member_id) VALUES (2, 3);
INSERT INTO ENROLL(Course_id, Member_id) VALUES (1, 4);
INSERT INTO ENROLL(Course_id, Member_id) VALUES (2, 4);
INSERT INTO ENROLL(Course_id, Member_id) VALUES (1, 6);
INSERT INTO ENROLL(Course_id, Member_id) VALUES (2, 6);
INSERT INTO ENROLL(Course_id, Member_id) VALUES (1, 7);
INSERT INTO ENROLL(Course_id, Member_id) VALUES (2, 7);
INSERT INTO ENROLL(Course_id, Member_id) VALUES (1, 8);

INSERT INTO ENROLL(Course_id, Member_id) VALUES (3, 10);
INSERT INTO ENROLL(Course_id, Member_id) VALUES (4, 10);
INSERT INTO ENROLL(Course_id, Member_id) VALUES (3, 11);
INSERT INTO ENROLL(Course_id, Member_id) VALUES (4, 11);
INSERT INTO ENROLL(Course_id, Member_id) VALUES (3, 13);
INSERT INTO ENROLL(Course_id, Member_id) VALUES (4, 13);
INSERT INTO ENROLL(Course_id, Member_id) VALUES (3, 14);
INSERT INTO ENROLL(Course_id, Member_id) VALUES (4, 14);

INSERT INTO ENROLL(Course_id, Member_id) VALUES (5, 34);
INSERT INTO ENROLL(Course_id, Member_id) VALUES (6, 34);
INSERT INTO ENROLL(Course_id, Member_id) VALUES (5, 35);
INSERT INTO ENROLL(Course_id, Member_id) VALUES (6, 35);

INSERT INTO ENROLL(Course_id, Member_id) VALUES (7, 31);
INSERT INTO ENROLL(Course_id, Member_id) VALUES (8, 31);
INSERT INTO ENROLL(Course_id, Member_id) VALUES (7, 32);
INSERT INTO ENROLL(Course_id, Member_id) VALUES (8, 32);

INSERT INTO ENROLL(Course_id, Member_id) VALUES (9, 27);
INSERT INTO ENROLL(Course_id, Member_id) VALUES (10, 27);
INSERT INTO ENROLL(Course_id, Member_id) VALUES (9, 28);
INSERT INTO ENROLL(Course_id, Member_id) VALUES (10, 28);
INSERT INTO ENROLL(Course_id, Member_id) VALUES (10, 29);
```

```
-- HOMEWORK
INSERT INTO HOMEWORK(Hw_id, Hw_Name, Course_id) VALUES (1, 'Yaygın Bilgisayar Ağları Araştırması', 1);
INSERT INTO HOMEWORK(Hw_id, Hw_Name, Course_id) VALUES (2, 'Termodinamiğin 2. Yasası', 3);
INSERT INTO HOMEWORK(Hw_id, Hw_Name, Course_id) VALUES (3, 'Temel Tıp Bilimleri Araştırması', 5);
INSERT INTO HOMEWORK(Hw_id, Hw_Name, Course_id) VALUES (4, 'Farmakolojinin Tarihi', 7);
INSERT INTO HOMEWORK(Hw_id, Hw_Name, Course_id) VALUES (5, 'Termodinamiğin 3. Yasası', 9);

-- WORKS ON
INSERT INTO WORKS_ON(Hw_id, Member_id) VALUES (1, 1);
INSERT INTO WORKS_ON(Hw_id, Member_id) VALUES (1, 3);
INSERT INTO WORKS_ON(Hw_id, Member_id) VALUES (1, 4);
INSERT INTO WORKS_ON(Hw_id, Member_id) VALUES (1, 6);

INSERT INTO WORKS_ON(Hw_id, Member_id) VALUES (2, 10);
INSERT INTO WORKS_ON(Hw_id, Member_id) VALUES (2, 11);
INSERT INTO WORKS_ON(Hw_id, Member_id) VALUES (2, 13);
INSERT INTO WORKS_ON(Hw_id, Member_id) VALUES (2, 14);

INSERT INTO WORKS_ON(Hw_id, Member_id) VALUES (3, 34);
INSERT INTO WORKS_ON(Hw_id, Member_id) VALUES (3, 35);

INSERT INTO WORKS_ON(Hw_id, Member_id) VALUES (4, 31);
INSERT INTO WORKS_ON(Hw_id, Member_id) VALUES (4, 32);

INSERT INTO WORKS_ON(Hw_id, Member_id) VALUES (5, 28);
INSERT INTO WORKS_ON(Hw_id, Member_id) VALUES (5, 29);
```

8) 3 triggers for 3 different tables.

```
-- Print USER table after INSERT user to the table
CREATE TRIGGER studentlistele
ON [user]
after INSERT
AS
  BEGIN
      SELECT *
      FROM   [user]
  END

-- User cannot send messages to himself/herself
CREATE TRIGGER kendinemesaj
ON message
after INSERT
AS
```

```
  BEGIN
      IF( EXISTS(SELECT *
                 FROM   inserted
                 WHERE  inserted.senderid = inserted.receiverid) )
        BEGIN
            RAISERROR('Kullanıcı kendisine mesaj atamaz!',1,1)

            ROLLBACK TRANSACTION
        END
  END

-- INSERT INTO[MESSAGE] (SenderID, ReceiverID, Msg_date, Msg_text) VALUES (1,
1, '01-01-2021', 'kendime mesaj')
-- User cannot connect to himself/herself
CREATE TRIGGER kendisiylebaglanti
ON connect
after INSERT
AS
  BEGIN
      IF( EXISTS(SELECT *
                 FROM   inserted
                 WHERE  inserted.member_id1 = inserted.member_id2) )
        BEGIN
            RAISERROR('Kullanıcı kendisiyle bağlantı kuramaz!',1,1)

            ROLLBACK TRANSACTION
        END
  END
```

9) 3 check constraints and 3 assertions.

CHECK Constraint

-- Language Level can be only 6 different level.

ALTER TABLE ACCOMPLISHMENT

ADD CONSTRAINT CHK_LanLevel

CHECK((Lan_level in ('Beginner', 'Elementary', 'Pre intermediate', 'Intermediate', 'Upper intermediate', 'Advanced')))

-- Experience Start Date should be smaller than Finish Date

ALTER TABLE ACCOMPLISHMENT

ADD CONSTRAINT CHK_Dates

CHECK (Exp_St_Date < Exp_Fin_Date)

-- Between StudentFlag and TeacherFlag at least one of them must be 1.

```
ALTER TABLE [USER]

ADD CONSTRAINT CHK_StudentOrTeacher

CHECK (((StudentFlag <> 0) or (TeacherFlag <> 0)))
```

10)

a) Samples of INSERT, DELETE and UPDATE statements for 3 tables.

```
-- MESSAGE TABLE


INSERT INTO[MESSAGE] (SenderID, ReceiverID, Msg_date, Msg_text) VALUES (4, 5, '04-04-2020', 'İyi dileklerin için teşekkürler...')


DELETE FROM [MESSAGE]

WHERE SenderID = 1 AND ReceiverID = 2


UPDATE [MESSAGE]

SET Msg_text = 'Bugün nasılsınız?'

WHERE SenderID = 1 AND ReceiverID = 34;


-- USER TABLE


INSERT INTO[USER](Member_id, Email, [Password], FName, LName, Phone, BDate, StudentFlag, Student_no, TeacherFlag) VALUES (38,
'otuzSekizOgr@gmail.com', '353535', 'Deneme', 'Silinecek', '05061112232', '04-02-1998', 1, '05120000126', 0);


DELETE FROM [USER]

WHERE Member_id = 38


UPDATE [USER]

SET Password = '377377'

WHERE Member_id = 37


-- POST TABLE


INSERT INTO POST(Post_id, Post_date, Post_text, creator_memberID)

VALUES (7, '12-09-2021', 'Mülakat trickleri..', 6);


DELETE FROM POST

WHERE Post_id = 8


UPDATE POST

SET Post_text = 'Android Studio hataları ve bunların çözümü'

WHERE Post_id = 6
```

b) 10 SELECT statements

i) For 1 table:

```
-- with 1 table
-- Listing all 'Doçent' and 'Profesör' from User
SELECT fname,
```

```
       lname,
       title
FROM   [user]
WHERE  title = 'Doçent'
        OR title = 'Profesör'

-- Listing comments that have 'Mutlu' word
SELECT DISTINCT member_id,
                post_id,
                c_text
FROM   comment
WHERE  comment.c_text LIKE '%Mutlu%'

-- Listing companies that have 250 or more employee
SELECT member_id,
       NAME,
       no_of_employee
FROM   company
WHERE  no_of_employee > 250
```

ii) For 2 table:

```
-- Listing courses that have homework
SELECT DISTINCT course_name
FROM   course AS c
WHERE  EXISTS(SELECT course_id
              FROM   homework AS h
              WHERE  h.course_id = c.course_id)

-- Listing users that member_id greater than 20 and course_id smaller
than 5
SELECT member_id,
       course_id
FROM   [user],
       course
WHERE  USER.member_id > 20
       AND course.course_id < 5

-- Listing Students that student number starts with '05170' and their
Language Level is 'Advanced'
SELECT DISTINCT fname, lname, bdate, lan_level
FROM   [user],
       accomplishment
WHERE  [user].student_no LIKE '%05170%'
       AND lan_level = 'Advanced'
```