1.

CREATE TABLE isad157\_zdauletov.facebook\_users(

user\_id INT NOT NULL,

first\_name VARCHAR(20) NOT NULL,

last\_name VARCHAR(20) NOT NULL,

gender VARCHAR(20) NOT NULL,

hometown VARCHAR(45) NOT NULL,

city VARCHAR(45) NOT NULL,

PRIMARY KEY(user\_id)

);

2.

CREATE TABLE isad157\_zdauletov.workplaces(

user\_id INT NOT NULL,

workplace\_name VARCHAR(45),

PRIMARY KEY(user\_id, workplace\_name)

);

3.

ALTER TABLE isad157\_zdauletov.workplaces

ADD FOREIGN KEY(user\_id)

REFERENCES isad157\_zdauletov.facebook\_users(user\_id);

4.

CREATE TABLE isad157\_zdauletov.universities(

user\_id INT NOT NULL,

university\_name VARCHAR(45),

PRIMARY KEY(user\_id, university\_name)

);

5.

ALTER TABLE isad157\_zdauletov.universities

ADD FOREIGN KEY(user\_id)

REFERENCES isad157\_zdauletov.facebook\_users(user\_id);

6.

CREATE TABLE isad157\_zdauletov.facebook\_friendships(

user\_id1 INT NOT NULL,

user\_id2 INT NOT NULL,

PRIMARY KEY(user\_id1, user\_id2)

);

7.

ALTER TABLE isad157\_zdauletov.facebook\_friendships

ADD FOREIGN KEY(user\_id1)

REFERENCES isad157\_zdauletov.facebook\_users(user\_id);

8.

ALTER TABLE isad157\_zdauletov.facebook\_friendships

ADD FOREIGN KEY(user\_id2)

REFERENCES isad157\_zdauletov.facebook\_users(user\_id);

9.

CREATE TABLE isad157\_zdauletov.messages(

user\_id1 INT NOT NULL,

user\_id2 INT NOT NULL,

date\_time DATETIME,

messages varchar(80),

PRIMARY KEY(user\_id1, user\_id2)

);

10.

ALTER TABLE isad157\_zdauletov.messages

ADD FOREIGN KEY(user\_id1)

REFERENCES isad157\_zdauletov.facebook\_users(user\_id);

11.

ALTER TABLE isad157\_zdauletov.messages

ADD FOREIGN KEY(user\_id2)

REFERENCES isad157\_zdauletov.facebook\_users(user\_id);

Normalization

UNF

User ID – initial key

First Name

Last Name

Gender

Hometown

City

(Workplace name)

(University name)

(User ID2)

(Date time

Message)

1NF

User ID

First Name

Last Name

Gender

Hometown

City

User ID

Workplace name

User ID

University name

User ID

User ID2

Date time

Message

2NF

User ID

First Name

Last Name

Gender

Hometown

City

User ID

Workplace name

User ID

University name

User ID

User ID2

User ID

User ID2

Date time

Message

3NF

User ID

First Name

Last Name

USER

Gender

Hometown

City

User ID

Workplaces

Workplace name

User ID

University name

Universities

User ID\*1

Friendships

User ID2

User ID\*2

User ID2

Date time

Messages

Message

\*1 means that in this table we have a composite key User ID + User ID2

\*2 means that in this table we have a composite key User ID + User ID2