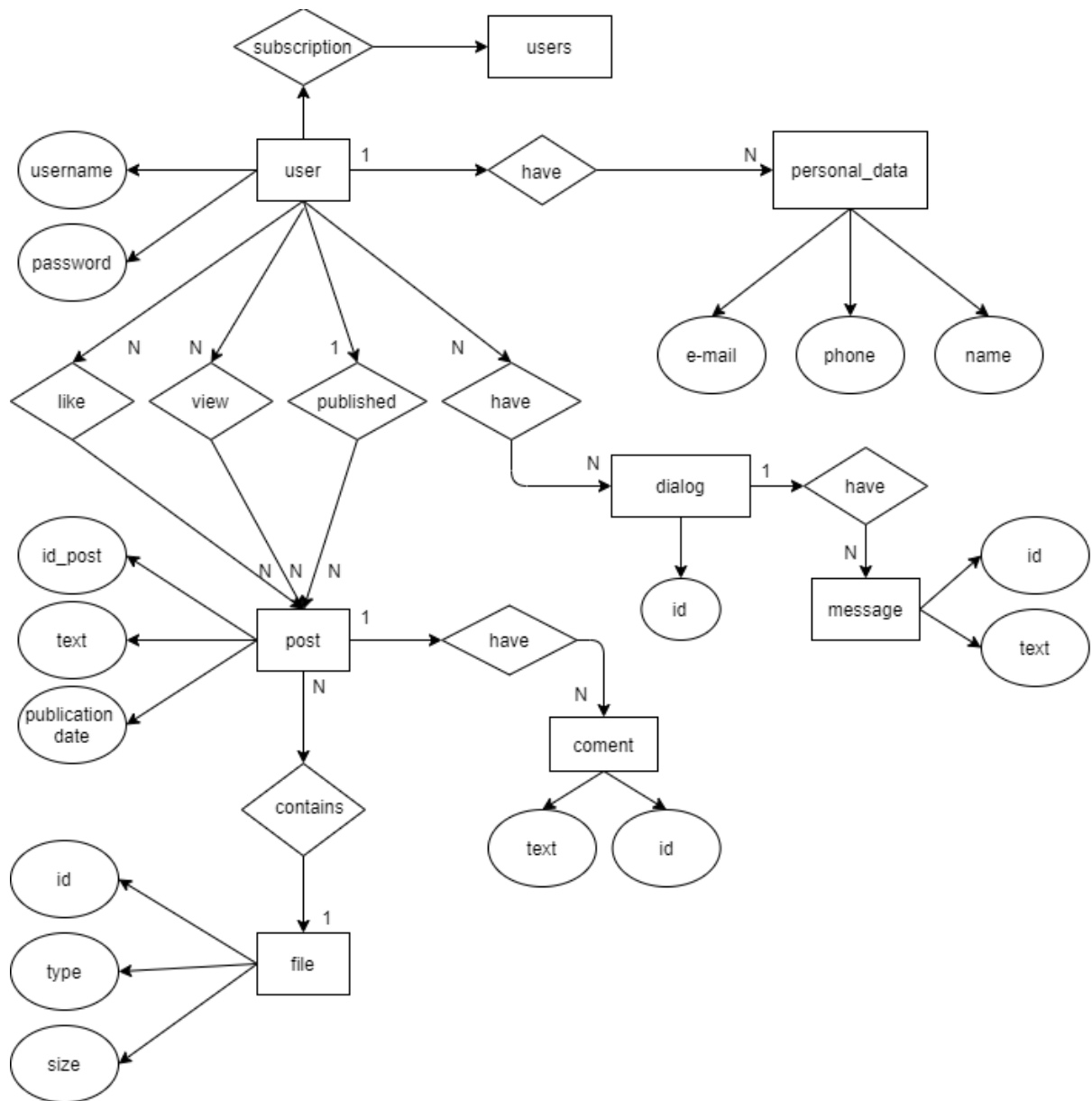
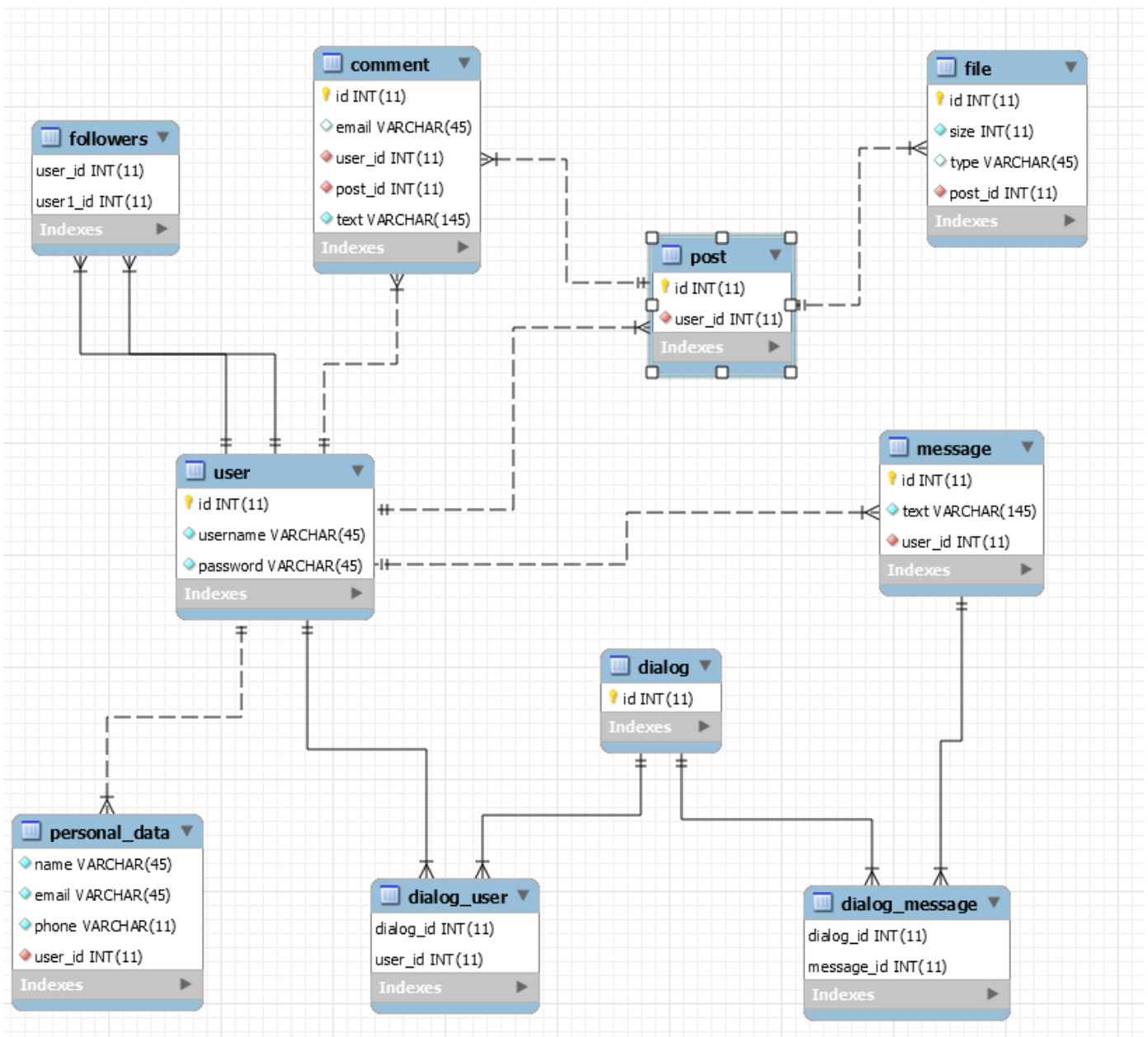


1. Entity Relationship Diagram



2. Database schema



SQL script

```
CREATE DATABASE instagram;
```

```
-----  
-- Table `Instagram`.`user`  
-----
```

```
USE Instagram;
```

```
CREATE TABLE user (  
    id int NOT NULL AUTO_INCREMENT,  
    username varchar(45) NOT NULL,  
    password varchar(45) NOT NULL,  
    PRIMARY KEY (id)  
    );
```

```
-----  
-- Table `Instagram`.`personal_data`  
-----
```

```
CREATE TABLE personal_data (  
  
    name VARCHAR(45) NOT NULL,  
    email VARCHAR(45) NOT NULL,  
    phone VARCHAR(11) NOT NULL,  
    user_id INT NOT NULL,  
  
    FOREIGN KEY (user_id) REFERENCES user(id)  
  
    );
```

```
CREATE INDEX index_user  
ON personal_data (user_id);
```

```
-----  
-- Table `Instagram`.`post`  
-----
```

```
CREATE TABLE post (  

```

```
id int NOT NULL AUTO_INCREMENT,  
    user_id int NOT NULL,  
    PRIMARY KEY (id),  
    FOREIGN KEY (user_id) REFERENCES user(id)
```

```
);
```

```
CREATE INDEX index_user
```

```
ON post (user_id);
```

```
-----
```

```
-- Table `Instagram`.`comment`
```

```
-----
```

```
CREATE TABLE comment (
```

```
    id int NOT NULL AUTO_INCREMENT,
```

```
    email VARCHAR(45) ,
```

```
    user_id int NOT NULL,
```

```
    post_id int NOT NULL,
```

```
    text VARCHAR(145) NOT NULL,
```

```
    PRIMARY KEY (id),
```

```
    FOREIGN KEY (user_id) REFERENCES user(id),
```

```
    FOREIGN KEY (post_id) REFERENCES post(id)
```

```
);
```

```
CREATE INDEX index_user
```

```
ON comment(user_id);
```

```
CREATE INDEX index_post
```

```
ON comment(post_id);
```

```
-----
```

```
-- Table `Instagram`.`file`
```

```
-----
```

```
CREATE TABLE file (
```

```
    id int NOT NULL AUTO_INCREMENT,
```

```
    size int NOT NULL,
```

```
        type VARCHAR(45) ,
post_id INT NOT NULL,
        PRIMARY KEY (id),

        FOREIGN KEY (post_id) REFERENCES post(id)

);
```

```
CREATE INDEX index_post
ON file(post_id);
```

```
-----
-- Table `Instagram`.`dialog`
-----
```

```
CREATE TABLE dialog (
        id INT NOT NULL AUTO_INCREMENT,

        PRIMARY KEY (id)

);
```

```
-----
-- Table `Instagram`.`message`
-----
```

```
CREATE TABLE message (
        id INT NOT NULL AUTO_INCREMENT,
        text VARCHAR(145) NOT NULL,
        user_id INT NOT NULL,
        PRIMARY KEY (id),
        FOREIGN KEY (user_id) REFERENCES user(id)

);
```

```
CREATE INDEX index_user
ON message(user_id);
```

```
-----  
-- Table `Instagram`.`dialog_user`  
-----
```

```
CREATE TABLE dialog_user (  
    dialog_id INT NOT NULL ,  
    user_id INT NOT NULL,  
    PRIMARY KEY (dialog_id, user_id ),  
    FOREIGN KEY (user_id) REFERENCES user(id),  
    FOREIGN KEY (dialog_id) REFERENCES dialog(id)
```

```
);
```

```
CREATE INDEX index_user
```

```
ON dialog_user(user_id);
```

```
CREATE INDEX index_dialog
```

```
ON dialog_user(dialog_id);
```

```
-----  
-- Table `Instagram`.`dialog_message`  
-----
```

```
CREATE TABLE dialog_message (  
    dialog_id INT NOT NULL ,  
    message_id INT NOT NULL,  
    PRIMARY KEY (dialog_id, message_id ),  
    FOREIGN KEY (message_id) REFERENCES message(id),  
    FOREIGN KEY (dialog_id) REFERENCES dialog(id)
```

```
);
```

```
CREATE INDEX index_message
```

```
ON dialog_message(message_id );
```

```
CREATE INDEX index_post_dialog
```

```
ON dialog_message(dialog_id);
```

-- Table `Instagram`.`followers`

```
CREATE TABLE followers (  
  user_id INT NOT NULL ,  
    user1_id INT NOT NULL,  
    PRIMARY KEY (user_id, user1_id ),  
    FOREIGN KEY (user_id) REFERENCES user(id),  
    FOREIGN KEY (user1_id) REFERENCES user(id)  
  
  );  
  
CREATE INDEX index_user  
ON followers(user_id );  
  
CREATE INDEX index_user1  
ON followers(user1_id);
```