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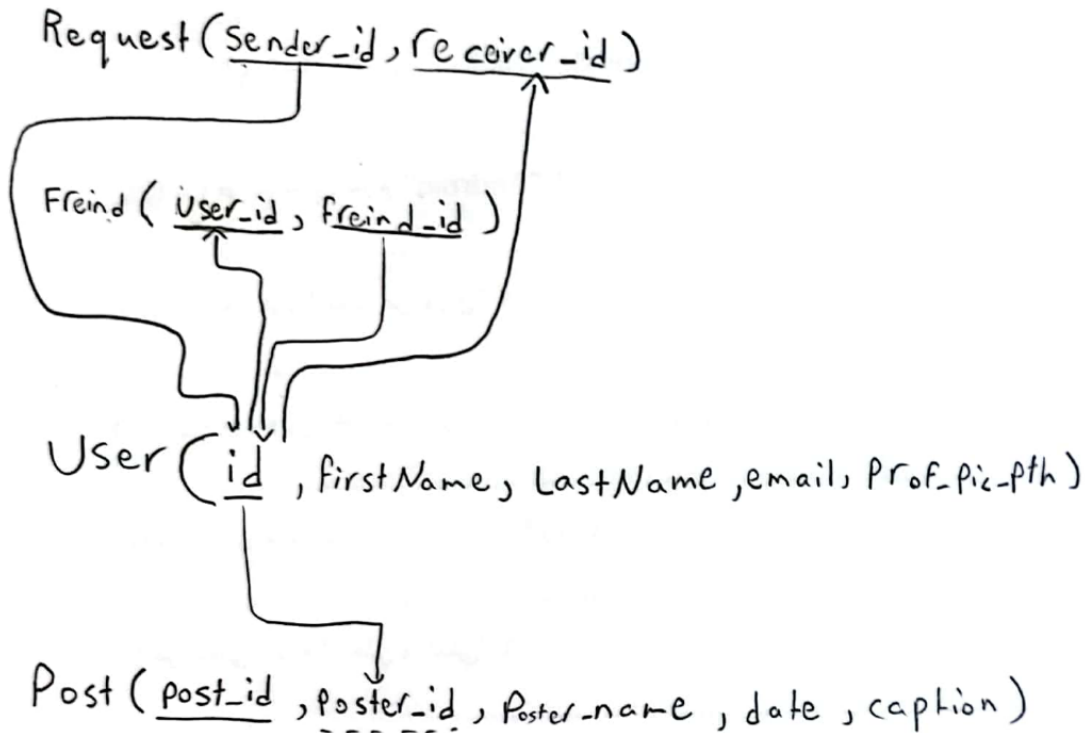
Data Engineering Project
Social Network

ER Diagram:
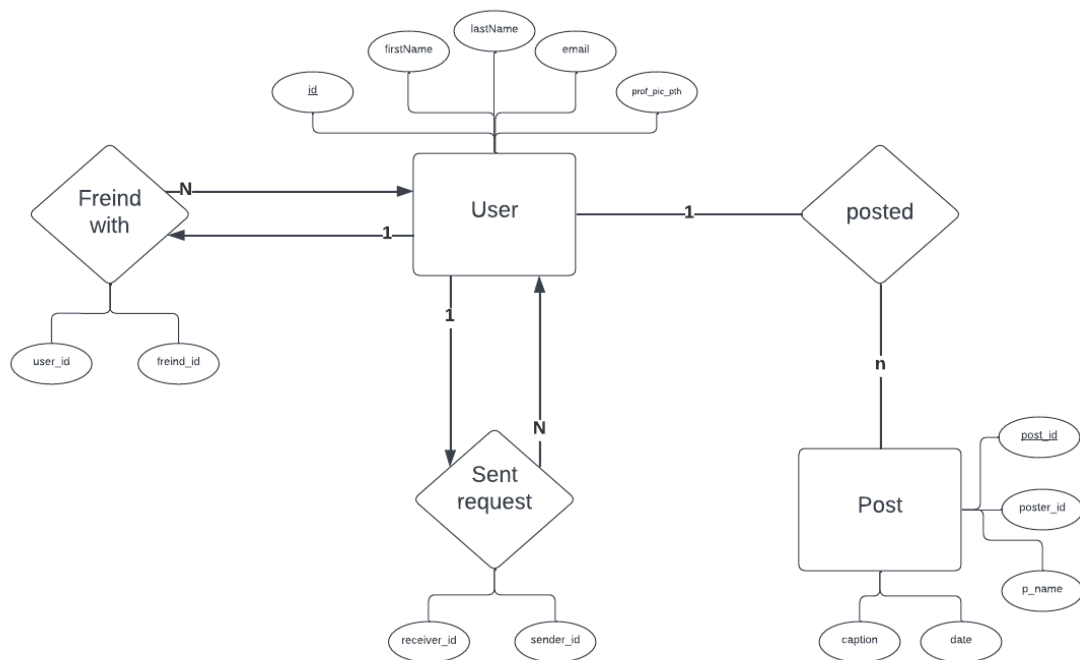
Relational Schema:

Request (Sender_id , re ceiver_id)

Freind (User_id , freind_id)

User (id , firstName , LastName , email , Prof_Pic_pth)

Post (post_id , Poster_id , Poster_name , date , caption)

DDL :

The DDL used can be found in ./scripts, I will attach a screenshot,
- **Database Creation + users table**

```
connection.query('CREATE DATABASE ' + dbconfig.database);
connection.query('\
CREATE TABLE `' + dbconfig.database + '`.`' + dbconfig.users_table + '` ( \
    `id` INT UNSIGNED NOT NULL AUTO_INCREMENT, \
    `firstName` VARCHAR(20) NOT NULL, \
    `lastName` VARCHAR(20) NOT NULL, \
    `email` VARCHAR(50) NOT NULL, \
    `password` VARCHAR(1024) NOT NULL, \
    `picPath` VARCHAR(1024) NOT NULL DEFAULT "default.png", \
    `_token` TEXT , \
    `reqNum` INT DEFAULT 0 , \
        PRIMARY KEY (`id`), \
    UNIQUE INDEX `id_UNIQUE` (`id` ASC) \
)');
```

- **Creating the rest of tables**

```
connection.query('\
CREATE TABLE `' + dbconfig.database + '`.`' + dbconfig.posts_table + '` ( \
    `id` INT UNSIGNED NOT NULL AUTO_INCREMENT, \
    `user_id` INT UNSIGNED NOT NULL, \
    `body` MEDIUMTEXT NOT NULL,\
    `published_on` DATETIME NOT NULL, \
        PRIMARY KEY (`id`), \
        FOREIGN KEY (`user_id`) REFERENCES users(`id`), \
    UNIQUE INDEX `id_UNIQUE` (`id` ASC) \
)');

connection.query('\
CREATE TABLE `' + dbconfig.database + '`.`' + dbconfig.friend_req_table+ '` ( \
    `sender_id` INT UNSIGNED NOT NULL, \
    `receiver_id` INT UNSIGNED NOT NULL, \
        FOREIGN KEY (`sender_id`) REFERENCES users(`id`), \
        FOREIGN KEY (`receiver_id`) REFERENCES users(`id`), \
        PRIMARY KEY (`sender_id`,`receiver_id`) \
)');

connection.query('\
CREATE TABLE `' + dbconfig.database + '`.`' + dbconfig.freinds_table + '` ( \
    `user_id` INT UNSIGNED NOT NULL, \
    `freind_id` INT UNSIGNED NOT NULL, \
        PRIMARY KEY (`user_id`,`freind_id`), \
        FOREIGN KEY (`user_id`) REFERENCES users(`id`), \
        FOREIGN KEY (`freind_id`) REFERENCES users(`id`) \
)');
```

Division of Labor Among Group:

Nawar :
- Login-Logout-Register
- Database and Table Creation
- Post Creation and querying all posts
- ERD,Schema,Report
- Advanced Search Query

Fady:
- Profile Edit and Profile Picture
- Friends
- Friend Requests
- Searching users (implementation)