

Database Report

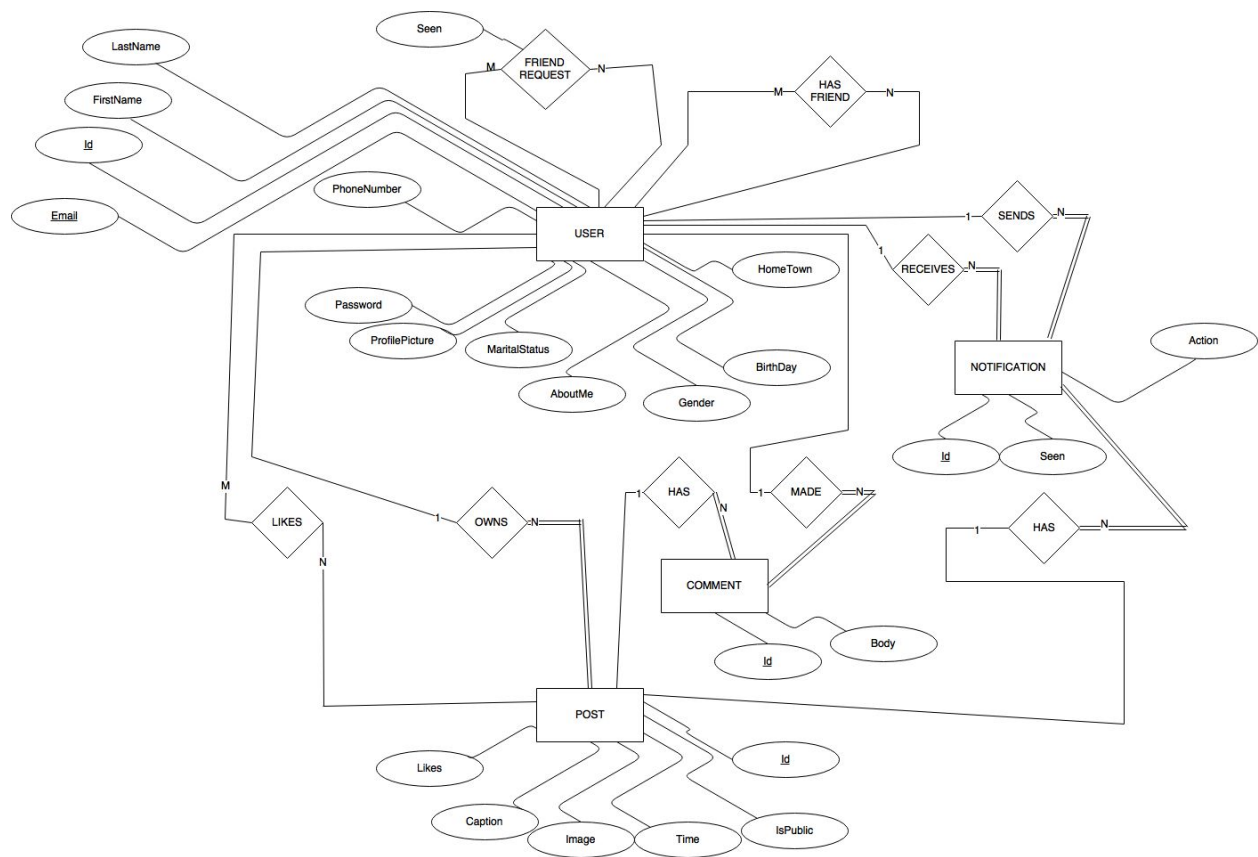
Abdelhady Mohamed : 42

Ahmed Khalid : 10

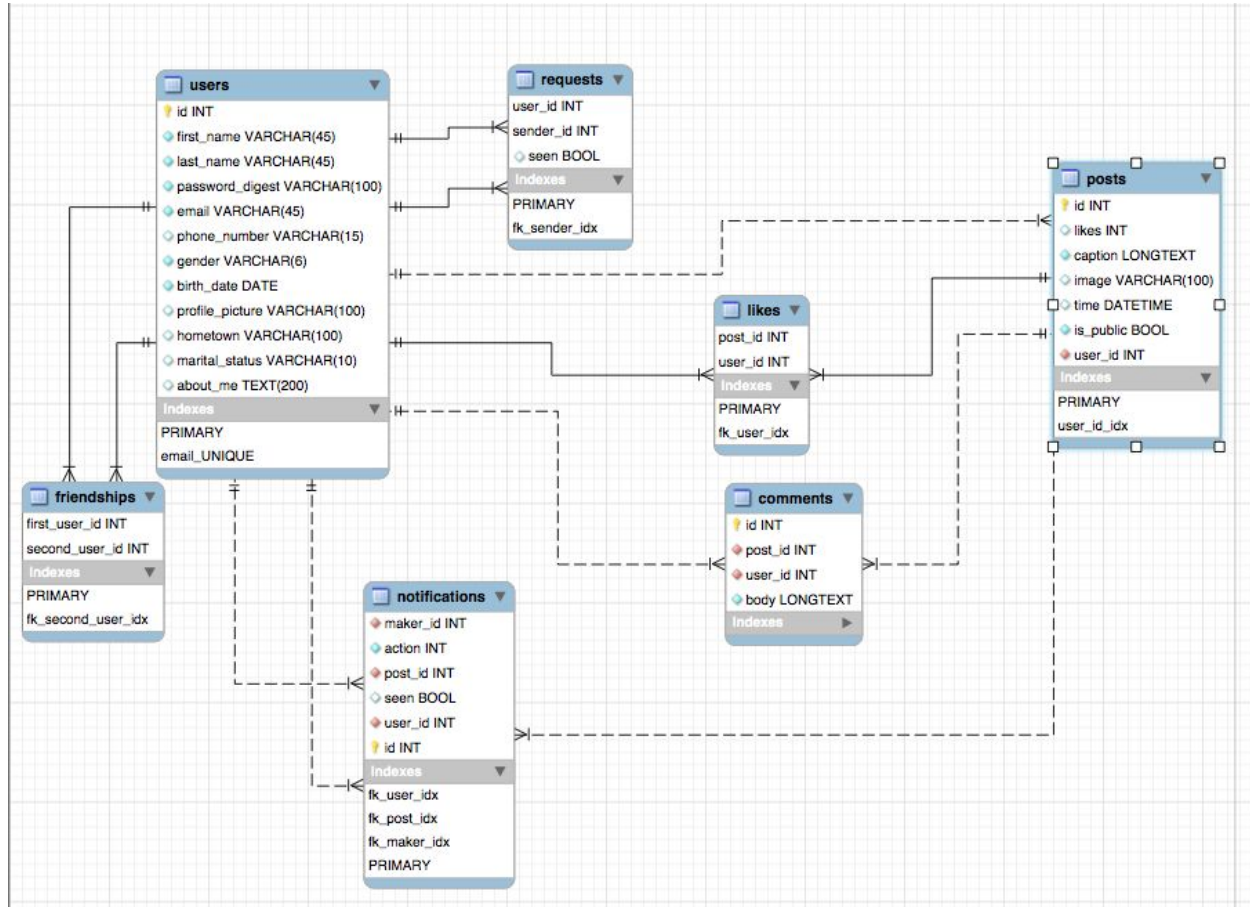
Islam Salah Mohamed : 17

Al-Hassan Mohamed : 18

ER Diagram:



Schema:



DDL:

```
CREATE SCHEMA IF NOT EXISTS `social_network` DEFAULT CHARACTER SET utf8 ;
USE `social_network` ;
```

```
-----
CREATE TABLE IF NOT EXISTS users (
  `id` INT NOT NULL AUTO_INCREMENT,
  `first_name` VARCHAR(45) NOT NULL,
  `last_name` VARCHAR(45) NOT NULL,
  `password_digest` VARCHAR(100) ,
  `email` VARCHAR(45) NOT NULL,
  `phone_number` VARCHAR(15) NULL,
  `gender` VARCHAR(6) NOT NULL,
  `birth_date` DATE NOT NULL,
  `profile_picture` VARCHAR(100) NULL,
  `hometown` VARCHAR(100) NULL,
  `marital_status` VARCHAR(10) NULL,
  `about_me` TEXT(200) NULL,
  PRIMARY KEY (`id`),
  UNIQUE INDEX `email_UNIQUE` (`email` ASC))
ENGINE = InnoDB;
```

```
-----
CREATE TABLE IF NOT EXISTS posts (
  `id` INT AUTO_INCREMENT,
  `likes` INT NULL DEFAULT 0,
  `caption` LONGTEXT NOT NULL,
  `image` VARCHAR(100) NULL,
  `is_public` TINYINT(1) NOT NULL,
  `user_id` INT NOT NULL,
  PRIMARY KEY (`id`),
  INDEX `user_id_idx` (`user_id` ASC),
  CONSTRAINT `fk_poster`
    FOREIGN KEY (`user_id`)
    REFERENCES `users` (`id`)
    ON DELETE CASCADE
    ON UPDATE CASCADE)
ENGINE = InnoDB;
```

```
-----  
CREATE TABLE IF NOT EXISTS requests (  
  `user_id` INT NOT NULL,  
  `sender_id` INT NOT NULL,  
  `seen` TINYINT(1) NULL DEFAULT 0,  
  PRIMARY KEY (`user_id`, `sender_id`),  
  INDEX `fk_sender_idx` (`sender_id` ASC),  
  CONSTRAINT `fk_receiver`  
    FOREIGN KEY (`user_id`)  
      REFERENCES `users` (`id`)  
      ON DELETE CASCADE  
      ON UPDATE CASCADE,  
  CONSTRAINT `fk_sender`  
    FOREIGN KEY (`sender_id`)  
      REFERENCES `users` (`id`)  
      ON DELETE CASCADE  
      ON UPDATE CASCADE)  
ENGINE = InnoDB;
```

```
-----  
CREATE TABLE IF NOT EXISTS `friendships` (  
  `first_user_id` INT NOT NULL,  
  `second_user_id` INT NOT NULL,  
  PRIMARY KEY (`first_user_id`, `second_user_id`),  
  INDEX `fk_second_user_idx` (`second_user_id` ASC),  
  CONSTRAINT `fk_first_user`  
    FOREIGN KEY (`first_user_id`)  
      REFERENCES `users` (`id`)  
      ON DELETE CASCADE  
      ON UPDATE CASCADE,  
  CONSTRAINT `fk_second_user`  
    FOREIGN KEY (`second_user_id`)  
      REFERENCES `users` (`id`)  
      ON DELETE CASCADE  
      ON UPDATE CASCADE)  
ENGINE = InnoDB;
```

```
-----  
CREATE TABLE IF NOT EXISTS `notifications` (  
  `maker_id` INT NOT NULL,  
  `action` INT NOT NULL,  
  `post_id` INT NOT NULL,  
  `seen` TINYINT(1) NULL DEFAULT 0,  
  `user_id` INT NOT NULL,  
  `id` INT NOT NULL AUTO_INCREMENT,  
  INDEX `fk_user_idx` (`user_id` ASC),  
  INDEX `fk_post_idx` (`post_id` ASC),  
  INDEX `fk_maker_idx` (`maker_id` ASC),  
  PRIMARY KEY (`id`),  
  CONSTRAINT `fk_user`  
    FOREIGN KEY (`user_id`)  
      REFERENCES `users` (`id`)  
      ON DELETE CASCADE  
      ON UPDATE CASCADE,  
  CONSTRAINT `fk_post`  
    FOREIGN KEY (`post_id`)  
      REFERENCES `posts` (`id`)  
      ON DELETE CASCADE  
      ON UPDATE CASCADE,  
  CONSTRAINT `fk_maker`  
    FOREIGN KEY (`maker_id`)  
      REFERENCES `users` (`id`)  
      ON DELETE CASCADE  
      ON UPDATE CASCADE)  
ENGINE = InnoDB;
```

```
-----  
CREATE TABLE IF NOT EXISTS `likes` (  
  `post_id` INT NOT NULL,  
  `user_id` INT NOT NULL,  
  PRIMARY KEY (`post_id`, `user_id`),  
  INDEX `fk_user_idx` (`user_id` ASC),  
  CONSTRAINT `fk_post2`  
    FOREIGN KEY (`post_id`)  
      REFERENCES `posts` (`id`)  
    ON DELETE CASCADE  
    ON UPDATE CASCADE,  
  CONSTRAINT `fk_user2`  
    FOREIGN KEY (`user_id`)  
      REFERENCES `users` (`id`)  
    ON DELETE CASCADE  
    ON UPDATE CASCADE)  
ENGINE = InnoDB;
```

```
-----  
-- Table `mydb`.`comments`  
-----
```

```
CREATE TABLE IF NOT EXISTS `comments` (  
  `id` INT NOT NULL,  
  `post_id` INT NOT NULL,  
  `user_id` INT NOT NULL,  
  `body` LONGTEXT NOT NULL,  
  PRIMARY KEY (`id`),  
  INDEX `fk_post_idx` (`post_id` ASC),  
  INDEX `fk_writer_idx` (`user_id` ASC),  
  CONSTRAINT `fk_post`  
    FOREIGN KEY (`post_id`)  
      REFERENCES `posts` (`id`)  
    ON DELETE CASCADE  
    ON UPDATE CASCADE,  
  CONSTRAINT `fk_writer`  
    FOREIGN KEY (`user_id`)  
      REFERENCES `users` (`id`)  
    ON DELETE CASCADE  
    ON UPDATE CASCADE)  
ENGINE = InnoDB;
```

Design and model of the website

The website is built using Ruby on Rails Framework. It depends mainly on MVC (Model-View-Controller) structure. The design of the website is divided mainly into these parts:

- Welcome Page which is used either to sign in or sign up.
- Home page contains posts of friends and public posts.
- Personal profile page containing the information of the user.
- Search section where you can search users by many means and you can also search posts
- Static header bar containing links to view friend requests and notification.

Labor Division:

User Model and Authentication: Al-Hassan Mohamed

Posts, likes and comments: Ahmed Khaled

Friend requests: Abdel Hady Mohamed

Search: Islam Salah