College Social Forum Mobile App

Arya Atighehchian & Nick Kirschke

Major: Computer Science

Major: Computer Science
Minor: Information Science

Abstract

The social atmosphere here at CNU is very diverse with countless clubs, social groups, and athletic teams. Currently there is not one place for all these groups to communicate with the student body and keep them posted on a regular basis of upcoming events and activities. This Android application utilizes PHP7 to communicate to and from our MySQL database.

Entity Relationship Diagram
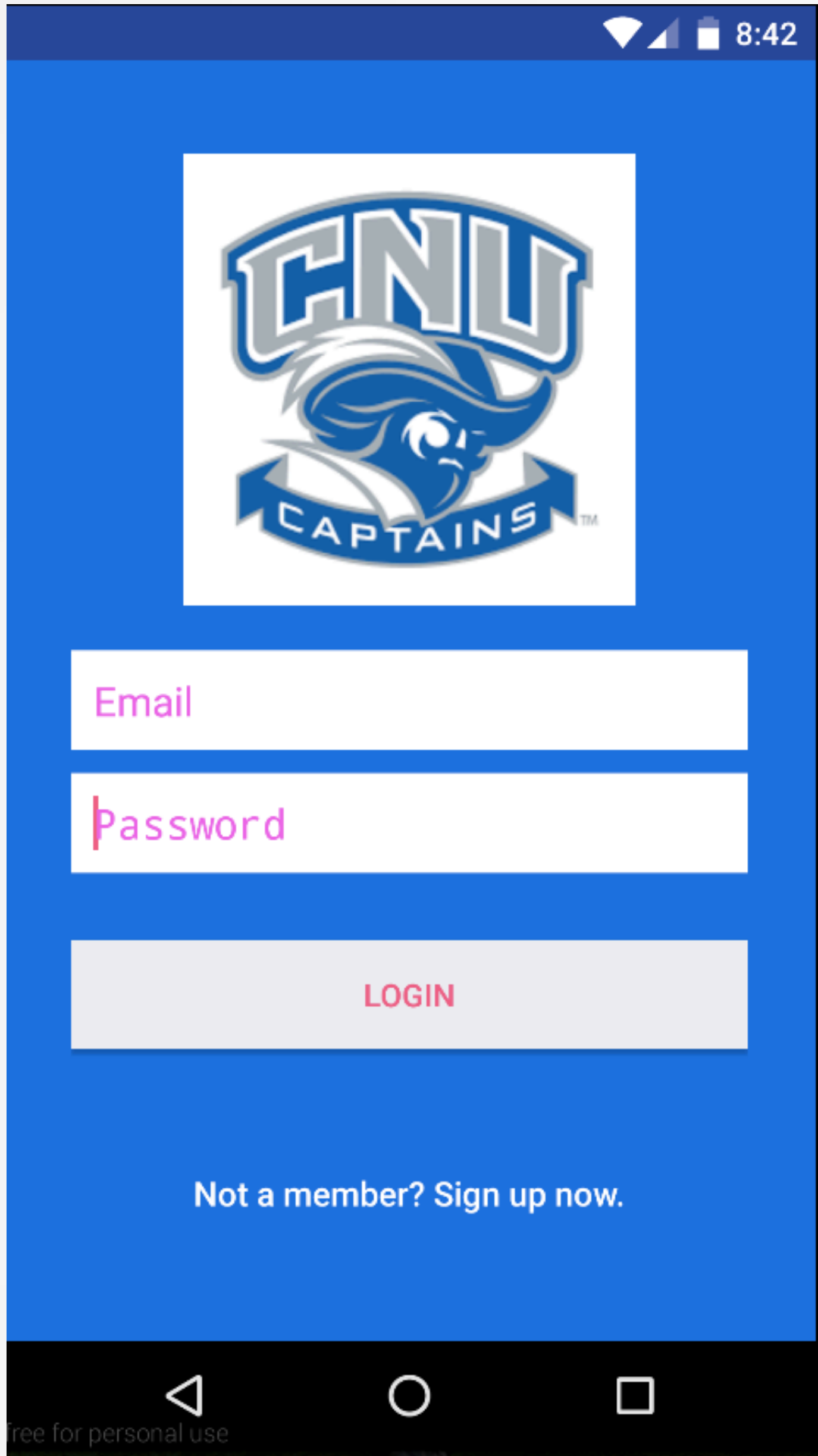
Security Measures

Security is a very important aspect currently in technology. We took proper precautions by hashing and salting a user's passwords to ensure account security.
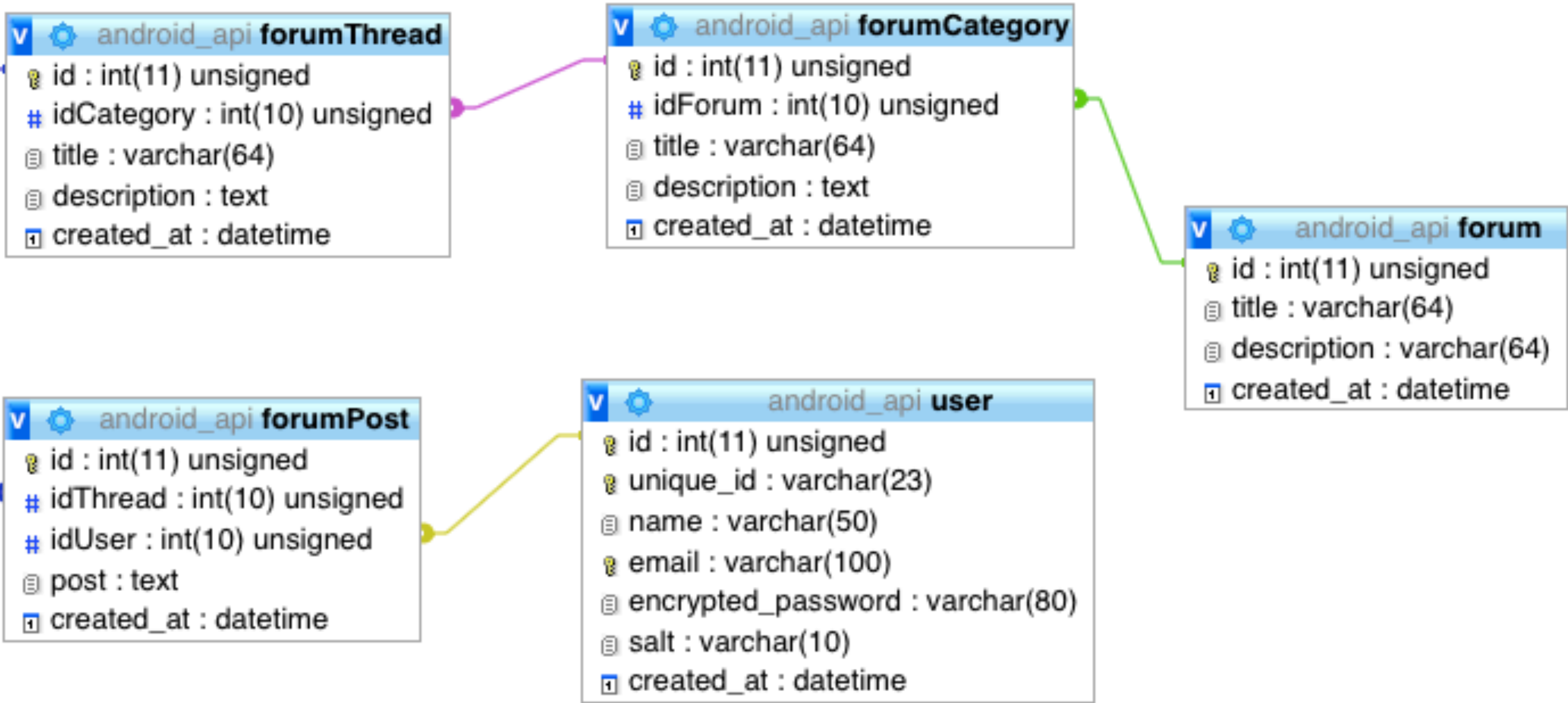
```php
public function storeUser($name, $email, $password) {
    $uuid = uniqid('', true);
    $hash = $this->hashSSHA($password);
    $encrypted_password = $hash["encrypted"]; // encrypted password
    $salt = $hash["salt"]; // salt

    $stmt = $this->conn->prepare("INSERT INTO user(unique_id, name, email, encrypted_password, salt,
        created_at) VALUES(?, ?, ?, ?, ?, NOW())");
    $stmt->bind_param("sssss", $uuid, $name, $email, $encrypted_password, $salt);
    $result = $stmt->execute();
    $stmt->close();

    // check for successful store
    if ($result) {
        $stmt = $this->conn->prepare("SELECT * FROM user WHERE email = ?");
        $stmt->bind_param("s", $email);
        $stmt->execute();
        $user = $stmt->get_result()->fetch_assoc();
        $stmt->close();

        return $user;
    } else {
        return false;
    }
}

public function hashSSHA($password) {

    $salt = sha1(rand());
    $salt = substr($salt, 0, 10);
    $encrypted = base64_encode(sha1($password . $salt, true) . $salt);
    $hash = array("salt" => $salt, "encrypted" => $encrypted);
    return $hash;
}
```

Dr. Aaron Koehl