

# Requirements Specification

Project: *Scrape*

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## **Project Goals**

- To consider the users and how best to optimally meet their needs for gallery software with large-scale image support.
- To provide a highly automated backend with minimal maintenance.
- To allow for basic social networking through the use of comments and ratings.
- To achieve a highly useable frontend interface.

# *Scrape*

## Milestone 3

### Specifications

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#### Functional

##### ◦ **Users**

- Users shall be able to register with their name, unique username, and password.
- Users shall be able to confirm their freshly registered account through their e-mail address.
- Users shall be able to edit their profiles and change account information.
- Users shall have a public gallery in which they can share to anyone with a link.
- Users shall have their own set of galleries that they are able to create & organize.
- Users shall be able to access a gallery feature with a lightbox styled viewer.
- Users shall be able to download their galleries.
- Users shall be able to reset their accounts to ensure they aren't locked out.
- Users shall be able to upload large images (>1 gigapixel) to their galleries.
- Users shall be able to rate and comment on pictures shared directly or through public galleries.
- Users shall be able to share their galleries publicly or with specific people through a randomly generated link.

##### ◦ **Administrators**

- Administrators shall be able choose images for the main page slideshow.
- Administrators shall be able to reset user account passwords.
- Administrators shall be able to use *Scrape* as a regular user.

##### ◦ **Backend**

- The database shall be full featured with built in integrity checking.
- The database shall provide for the uploading and storage of large images (>1 gigapixel) by automatically splitting the image into chunks for more efficient retrieval.
- The database shall store paths to the filesystem location of images/chunked images.

##### ◦ **Frontend**

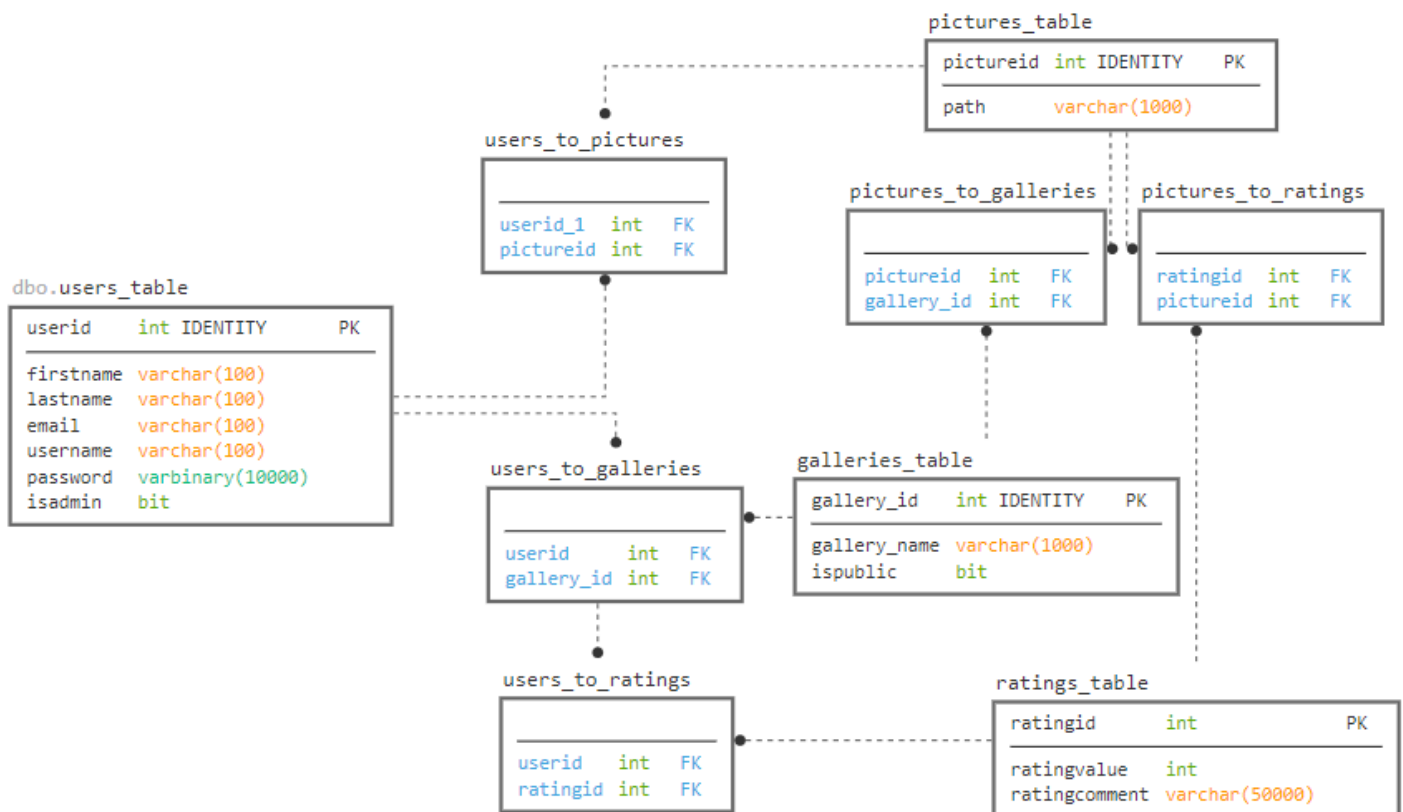
- The user interface shall provide a public gallery viewable on the frontpage.
- The user interface shall provide an easy to use image uploader.
- The user interface shall provide a gallery viewer.
- The user interface shall provide a large-scale image viewer with zooming and panning capabilities.
- The user interface shall automatically stitch large images (>1 gigapixel) together for the viewer.
- The user interface shall stream portions of large images in order to view while the image loads.

## Non-Functional

- Security for the database involving all interactions is paramount. Properly encrypted, hashed passwords for all users and, accordingly, proper permissions must also be set.
- Data safety must be considered. Backups on a regular, automated process if possible.
- Performance will be important. Loading of images & galleries needs to be quick and the viewing of large-scale images will need to be efficient.
- Basic social networking features to allow sharing and basic discussion will be important to keep users connected and browsing.

## Database Diagram

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# Use-case Diagram

