

# CSCI 4370 Term Project

## Initial Steps

### Title

Lunar Reconnaissance Orbiter (LRO) Image Storage and Interfacing

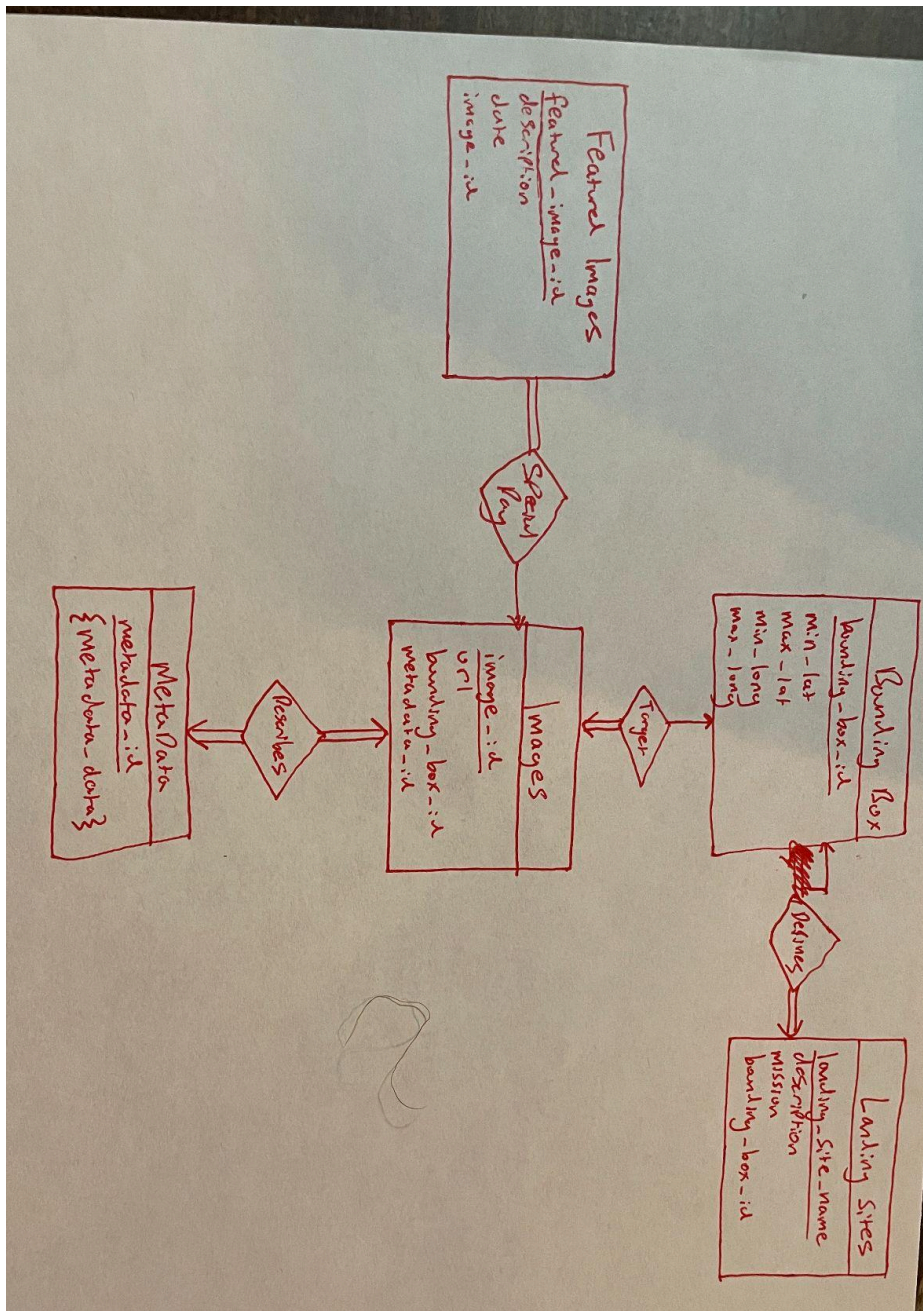
### Problem Description

The LRO satellite is a NASA spacecraft that has been orbiting the Moon since its launch in 2009. The mission of LRO was to capture images of the surface and reconstruct them into 3-D maps at 100-meter resolution. This mission was accomplished, as LRO has constructed these maps for upwards of 98% of the Moon's surface. An issue arises when thinking about the storage of these images and their associated metadata. Users should be able to access data regarding images, targets (craters), metadata, and other information associated with the data products produced by the mapping mission.

### Solution Description and User Interfaces

Our solution to the issue is to create a web application that will allow users to view all images and craters, as well as individual images and craters. In this individual view more in depth information will be available, and users will have the ability to create their own datasets. Datasets will include images, craters, their bounding boxes, and metadata associated with images. There will also be a functionality that shows featured images, which are on a daily basis.

## Preliminary ER Diagram



## Technologies Used

Java, Spring Boot, JDBC connection, Docker (MySQL), Maven