

DATA STRUCTURE

Database field	Rules
Building Name or Image Title	Non-repeatable, Required
Location	Repeatable, Required
Time Period Completed	Repeatable, Optional
Building Functions	Repeatable, Required
Architectural Features	Repeatable, Required

IMAGES

<p>1- Barn</p> 	<p>Building Name or Image Title: Red Barn</p> <p>Location: Connecticut, New England, United States, North America, countryside</p> <p>Time Period Completed: 20th Century</p> <p>Building Functions: barn, agriculture, farming, storage</p> <p>Architectural Features: wood, paned window, pitched roof</p>
<p>2-Taliesin West</p> 	<p>Building Name or Image Title: Taliesin West</p> <p>Location: Scottsdale, Arizona, Southwest, United States, North America, desert, mountains</p> <p>Time Period Completed: 1937, 20th Century</p> <p>Building Functions: dwelling, school, studio</p> <p>Architectural Features: landscaping, Frank Lloyd Wright, rock faced chimney, stone, The Frank Lloyd Wright School of Architecture, tourist attraction, garden</p>

3- Shotgun House



Building Name or Image Title: Shotgun House

Location: French Quarter, New Orleans, Louisiana, South, United States, North America, city

Time Period Completed: 19th Century

Building Functions: dwelling

Architectural Features: brick, shutter, paned window, wrought iron railing, stoop, shingled roof, pitched roof

4-Schloss Neuschwanstein



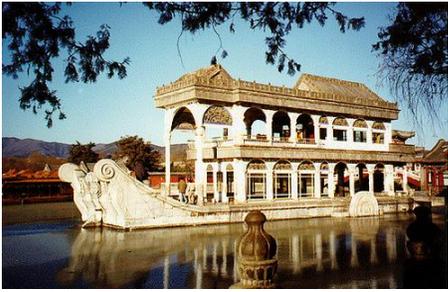
Building Name or Image Title: Schloss Neuschwanstein

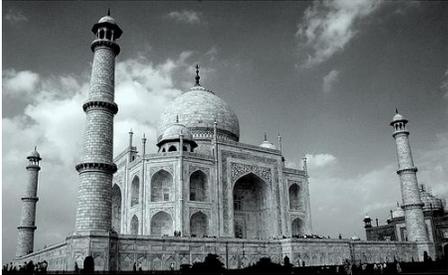
Location: Hohenschwangau, Bavaria, Germany, Europe, hillside, countryside

Time Period Completed: 19th Century

Building Functions: palace, castle

Architectural Features: gatehouse, tower, citadel, Ludwig II, tourist attraction, brick, spire, cross, pitched roof

<p>5- Summer Palace</p>  <p>A photograph of the Marble Boat at the Summer Palace in Beijing, China. The boat is a large, ornate pavilion with a white facade and a traditional Chinese roof, situated on a lake. The boat is surrounded by water and trees.</p>	<p>Building Name or Image Title: Marble Boat at the Summer Palace</p> <p>Location: Beijing, China, Asia, lake</p> <p>Time Period Completed: 1893, 19th Century</p> <p>Building Functions: pavilion</p> <p>Architectural Features: wood, faux marble, mirror, imitation paddlewheel, drainage system, stone base, tourist attraction</p>
<p>6-Church</p>  <p>A photograph of a small, white, Gothic-style church with a red steeple, situated on a grassy hill. The church has a pitched roof and a cross on top of the steeple. The sky is blue with some clouds.</p>	<p>Building Name or Image Title: Christian Church</p> <p>Location: Wairarapa, New Zealand, South Pacific, Oceania, countryside</p> <p>Time Period Completed: 20th Century</p> <p>Building Functions: church, house of worship</p> <p>Architectural Features: steeple, paned window, wood, pitched roof, cross, Christian, spire</p>
<p>7- Cathedral</p>  <p>A photograph of the Blagovishensky Cathedral in Kharkov, Ukraine. The cathedral is a large, ornate, multi-domed structure with a prominent central dome and several spires. It is surrounded by a fence and trees.</p>	<p>Building Name or Image Title: Blagovishensky Cathedral</p> <p>Location: Kharkov, Ukraine, Europe, city</p> <p>Time Period Completed: 1901, 20th Century</p> <p>Building Functions: church, house of worship</p> <p>Architectural Features: steeple, cross, dome, Christian, spire, brick, wrought iron railing, paned window</p>

<p>8-Winter Cabin</p> 	<p>Building Name or Image Title: Winter Cabin</p> <p>Location: Michigan, Midwest, United States, North America, countryside</p> <p>Building Functions: dwelling</p> <p>Architectural Features: wood, log, pitched roof, shutter</p>
<p>9- Taj Mahal detail</p> 	<p>Building Name or Image Title: Taj Mahal (detail)</p> <p>Location: Agra, India, Asia, city</p> <p>Time Period Completed: 1653, 17th Century</p> <p>Building Functions: mausoleum</p> <p>Architectural Features: vaulted archway, marble, tourist attraction, Muslim, Mughal, calligraphy, plant motif, spire, abstract form, Shah Jahan</p>
<p>10- Taj Mahal</p> 	<p>Building Name or Image Title: Taj Mahal (full)</p> <p>Location: Agra, India, Asia, city</p> <p>Time Period Completed: 1653, 17th Century</p> <p>Building Functions: mausoleum</p> <p>Architectural Features: vaulted archway, marble, tourist attraction, Muslim, Mughal, calligraphy, plant motif, spire, abstract form, dome, minaret, Shah Jahan</p>

NARRATIVE

As I worked through Part 2 of this assignment, I kept the description of the user group close at hand. This allowed me to easily distinguish between relevant and non-relevant data as I created my five fields and also to choose the rules that would best serve the needs of the users. As I organized and edited the numerous terms from my group's master data spreadsheet, I discarded those which were subjective or unrelated to the topics of architecture, building style, or building function throughout time and across cultures, which were the user group's main topics of study. The discarded terms included all adjectives and those terms which emphasized technical details of the images themselves, such as "color photography" and "distance shot." I was left with a list of nouns describing the buildings in the images, and as I read over the list, I jotted down abstract categories into which they could be grouped. My original list consisted of nine categories, but upon further consideration, I was able to combine or re-define them in order to come up with exactly five, as required by the assignment. The five categories I chose were 1) Building Name or Image Title, 2) Location, 3) Time Period Completed, 4) Building Functions, and 5) Architectural Features.

I decided to make the Building Name or Image Title field non-repeatable and required because I wanted each image in the data structure to have a unique identifier, which would allow students from the user group to search for particular buildings by name. I entered proper names for those buildings which have them, such as Taliesin West, and for those with no given name, I entered a unique, descriptive title such as "Log Cabin" or "Red Barn." I distinguished the two images of the Taj Mahal by adding a parenthetical notation of "detail" or "full."

Because the students in the user group are studying architecture across cultures, I made the Location field required, as it is important to know where each of the buildings is located. I made this field repeatable because I wanted to allow for entries at various levels of granularity, such as city, state, region, country, or continent, since users might search the structure using different location terms. For each image, I entered as many location terms as I could accurately assign according to the information I could find about the buildings either on the Flickr site where the images are hosted or through further research. I entered terms ranging from the very specific (e.g. "French Quarter" for the Shotgun House) to the very general (e.g. "North America" and "desert" for Taliesin West). This will allow the students to aggregate several images by searching with the more general terms or to discriminate between them by searching with very specific terms.

Because a main topic of study for the user group is architecture throughout time, I knew it was important to include a field for Time Period. Naming and defining the rules for this field was more challenging than for the first two fields because while I had very specific dates of construction for some buildings, such as Taliesin West and the Taj Mahal, for others, such as the Red Barn, I could only guess at the century of construction with any confidence in the accuracy of my assessment—and I could not even confidently wager a guess on the Log Cabin. At least one of the buildings (the Marble Boat at the Summer Palace) had been completely destroyed and rebuilt, and some of the buildings took more than one year to build. I therefore decided to name the field "Time Period Completed" and to make the field optional and repeatable, which would allow me, for

those buildings for which I had specific data, to enter the specific years in which construction was completed on the current manifestations of the buildings, but which would also allow me to enter time periods by century, or not at all. This approach will allow users to aggregate images built in the same century or search by specific year in order to limit their results.

Because another main topic of study for this user group is building function, that was an easy choice of a required field. However, since buildings can have multiple functions, I made the field repeatable. Enabling the entry of more than one term in this field also allows for the use of terms ranging from the specific (e.g. “church”) to the general (e.g. “house of worship), which again permits flexibility in searching and allows users to aggregate or discriminate between different buildings depending upon their chosen search terms.

My fifth field is the catchall field of Architectural Features. I needed a category which was general enough to allow for the entry of a broad range of terms, including building styles and materials, specific building features such as “minaret” or “steeple,” and the proper names of architects or rulers who commissioned the construction of the buildings. I made the field required because it contains important information for the user group’s area of study and repeatable to allow for the entry of multiple values. This will enable users to aggregate buildings that share certain features or to discriminate between them, searching, for example, for a specific building by architect.

After I decided on my five fields and their rules, I carefully entered the data for each image. Although I had selected a list of terms before creating the five fields, I found myself editing and expanding the list as I entered the terms into the data structure. For some images, my original list had not been exhaustive enough, and looking at the images again through the framework of the data structure allowed me to fill out their descriptions. Some terms required careful deliberation about which category to place them in, as sometimes the distinction between function and feature can be a little blurry. After I had entered the terms for every image, I went back over the structure several times to ensure that if a term I had entered for a particular image (such as “tourist attraction” or “paned window”) applied to other images, I entered it into their records as well. Doing so helps to ensure consistency among all of the records and also allows for the aggregation of structures with common features when searched by the user group. Overall, I am very satisfied with my data structure and believe that the students in the user group will find it very useful. I learned a lot from this assignment and look forward to the challenge of more advanced work with data structures and databases.