**PhotoViewer - Database**

**Folder**

|  |  |  |
| --- | --- | --- |
| Column Name | Type | Description |
| folderID | SMALLINT | Primary Key |
| name | TINYTEXT | folder name on disk |
| path | TINYTEXT | location on disk |
| startDate | DATE | earliest photo date or trip start |
| countries | TINYTEXT | contries visited |
| states | TINYTEXT | states visited |
| locations | TINYTEXT | description of trip locations |
| description | TINYTEXT | general trip description |

**Photo**

|  |  |  |
| --- | --- | --- |
| Column Name | Type | Description |
| photoID | INT | Primary Key |
| name | TINYTEXT | name of photo file |
| photoPath | TINYTEXT | location on disk of main photo |
| thumbPath | TINYTEXT | location on disk of thumbnail |
| title | TINYTEXT | EXIF Object Name |
| caption | TINYTEXT | EXIF Caption/Abstract |
| dateTime | DATETIME | EXIF DateTimeOriginal |
| exposure | TINYTEXT | EXIF ExposureTime |
| fStop | TINYTEXT | EXIF Fnumber |
| ISO | TINYTEXT | EXIF ISOSpeedRatings |
| height | SMALLINT | EXIF Image Height |
| width | SMALLINT | EXIF Image Width |
| cameraMake | TINYTEXT | EXIF Make |
| cameraModel | TINYTEXT | EXIF Model |
| cameraLens | TINYTEXT | EXIF LensModel |
| flash | BOOLEAN | EXIF Flash (true/false) |
| latitude | FLOAT | EXIF GPSLatitude |
| latitudeRef | TINYTEXT | EXIF GPSLatitudeRef (north/south) |
| longitude | FLOAT | EXIF GPSLongitude |
| longitudeRef | TINYTEXT | EXIF GPSLongitudeRef (east/west) |
| folderID | SMALLINT | primary key of folder |

**Keyword**

|  |  |  |
| --- | --- | --- |
| Column Name | Type | Description |
| keywordID | SMALLINT | Primary Key |
| keyword | TINYTEXT | Text of keyword |
|  |  |  |

**PhotoKeyword**

|  |  |  |
| --- | --- | --- |
| Column Name | Type | Description |
| keywordID | SMALLINT | keyword table primary key |
| photoID | INT | photo table primary key |

**JPEG Tag Names Used by ExifReader Library**

| **Tag** | **#** |
| --- | --- |
| about | 10 |
| ApertureValue | 4 |
| ApproximateFocusDistance | 1 |
| Artist | 4 |
| Bits Per Sample | 10 |
| By-line | 4 |
| CameraOwnerName | 4 |
| Caption/Abstract | 5 |
| Coded Character Set | 10 |
| Color Components | 10 |
| Color Space | 6 |
| ColorSpace | 4 |
| ComponentsConfiguration | 4 |
| CompressedBitsPerPixel | 1 |
| Connection Space | 6 |
| Copyright | 10 |
| Copyright Notice | 10 |
| CreateDate | 4 |
| creator | 4 |
| CustomRendered | 4 |
| Date Created | 4 |
| DateCreated | 4 |
| DateTime | 4 |
| DateTimeDigitized | 4 |
| DateTimeOriginal | 4 |
| description | 1 |
| Device Manufacturer | 6 |
| Device Model Number | 6 |
| DigitalZoomRatio | 4 |
| DocumentID | 10 |
| Exif IFD Pointer | 10 |
| ExifVersion | 10 |
| ExposureBiasValue | 4 |
| ExposureMode | 4 |
| ExposureTime | 4 |
| FileSource | 1 |
| Firmware | 4 |
| Flash | 4 |
| FlashCompensation | 4 |
| FlashpixVersion | 4 |
| FNumber | 4 |
| FocalLength | 4 |
| FocalPlaneResolutionUnit | 4 |
| FocalPlaneXResolution | 4 |
| FocalPlaneYResolution | 4 |
| format | 10 |
| good | 4 |
| History | 10 |
| ICC Copyright | 6 |
| ICC Description | 6 |
| ICC Profile Date | 6 |
| ICC Signature | 6 |
| Image Height | 10 |
| Image Width | 10 |
| InstanceID | 10 |
| Interoperability IFD Pointer | 4 |
| InteroperabilityIndex | 4 |
| InteroperabilityVersion | 4 |
| ISOSpeedRatings | 1 |
| Lens | 4 |
| LensInfo | 4 |
| LensModel | 4 |
| LensSpecification | 4 |
| Make | 5 |
| MakerNote | 4 |
| Marked | 10 |
| MaxApertureValue | 4 |
| MetadataDate | 10 |
| MeteringMode | 1 |
| Model | 5 |
| Model Version | 5 |
| ModifyDate | 4 |
| Object Name | 1 |
| Orientation | 10 |
| OriginalDocumentID | 10 |
| OwnerName | 4 |
| PhotographicSensitivity | 1 |
| PixelXDimension | 4 |
| PixelYDimension | 4 |
| Preferred CMM type | 6 |
| Primary Platform | 6 |
| Profile Creator | 6 |
| Profile Version | 6 |
| Profile/Device class | 6 |
| RawFileName | 10 |
| Record Version | 10 |
| RelatedImageHeight | 4 |
| RelatedImageWidth | 4 |
| Rendering Intent | 6 |
| ResolutionUnit | 4 |
| rights | 10 |
| SceneCaptureType | 4 |
| SensingMethod | 1 |
| ShutterSpeedValue | 4 |
| Subsampling | 10 |
| Thumbnail | 4 |
| Time Created | 4 |
| title | 10 |
| UsageTerms | 10 |
| WhiteBalance | 4 |
| XResolution | 4 |
| YCbCrPositioning | 4 |
| YResolution | 4 |
| about | 10 |

**Firefox about:config settings**

Images automatically resized. Disable by setting  
browser.enable\_automatic\_image\_resizing = false

Cross-Origin Request (CORS) blocked. Disable blocking local files by setting  
privacy.file\_unique\_origin = false

**Screens for uploading photos**

|  |  |  |  |
| --- | --- | --- | --- |
| **Function** | **CSS** | **Javascript** | **JS File** |
| Select files/folder | newjpeg\_select |  | upload-select.js |
| Verify with user | newjpeg\_verify |  | upload-verify.js |
| Choose folder on srvr | newjpeg\_folder |  | upload-folder.js |
| Show progress | newjpeg\_progress |  | upload-progress.js |
| Show result | newjpeg\_result |  | upload-result.js |
| Errors | Newjpeg\_error |  | Upload-error.js |

|  |  |  |  |
| --- | --- | --- | --- |
| **Screen** | **Event** | **Dispatch** | **Action** |
| Select | Navigate to Upload page |  | Setup screen listeners |
|  | Close Select dialog box | GET\_SELECTED\_FILES | Put File Objects into array |
|  | Drop | GET\_DROPPED\_FILES | Validate folders/files Put File Objects into array |
|  | Files validated & in array | VERIFY\_FILES | Open verify screen |
|  | Cancel btn | CANCEL\_UPLOAD | Reset forms; Hide all screens Show initial Upload page |
| Verify | Open screen |  | Display list of files & folder name if not null |
|  | Upload btn | GET\_FOLDER\_LIST | Send file date info to server |
|  |  |  |  |
|  | Cancel btn | CANCEL\_UPLOAD | Reset forms; Hide all screens Show initial Upload page |
|  | Ajax response – error | AJAX\_ERROR | Open error screen |
|  | Ajax response – success | SELECT\_FOLDER | Open folder screen |
| Folder | Radio btn | RECORD\_FOLDER | Record selected folder |
|  | Upload btn | SEND\_TO\_SERVER | Send to server: files, folder info Open progess screen |
|  | Cancel btn | CANCEL\_UPLOAD | Reset forms; Hide all screens Show initial Upload page |
| Progress | Ajax response – error | AJAX\_ERROR | Open error screen |
|  | Ajax response – success | SUCCESS\_UPLOAD | Open results screen |
| Results | OK btn | CANCEL\_UPLOAD | Reset forms; hide all screens |

**handleDrop() tasks:**

1. **Select** – Accept drag/drop or select dialog result
   1. Files – ask user for name of directory on server
   2. One directory
      1. Upload directory contents to same name directory on server
   3. Multiple directories – not allowed
   4. Multiple directories + files – not allowed
2. **Verify** – Show list of files to upload
   1. List of files and folders
   2. Warning msg if a nested folder is found (its contents won’t be uploaded)
   3. Warning msg if files other than jpeg or json are found (they won’t be uploaded)
   4. Upload button – continue with 4.
   5. Cancel button – reset form, delete data & set popup display to none
3. **Folder** - Determine folder to store jpegs in on server:
   1. If folder dropped, verify same folder on server will hold uploaded photos
   2. Determine min & max date of all jpegs
   3. Send dates to server to get list of folders to put jepgs in
   4. Send any folder names to server to determine if it exists
   5. Get list of folders from server
   6. Display folder list as radio buttons
   7. Read selected folder name
   8. Verify that folder to be uploaded will go in new folder on server  
      or the contained jpegs will go into the existing folder
   9. Start file upload
4. **Progress** – display a progress screen
   1. Hide when response from server received
5. **Result** - Receive response from server and display

**Test Displaying JPEG image from local disk**

<script>

window.onload = initPage

function initPage() {

let dropzone = document.getElementById("dropzone");

let listing = document.getElementById("listing");

dropzone.addEventListener("dragover", function (event) {

event.preventDefault();

}, false);

dropzone.addEventListener("drop", function (event) {

let items = event.dataTransfer.items;

event.preventDefault();

listing.innerHTML = "";

for (let i = 0; i < items.length; i++) {

let item = items[i].webkitGetAsEntry();

if (item) {

let myphoto = document.getElementById("myphoto");

let srcphoto = "file:///N:/Photos/1989-04-00\_SantaCruz" + item.fullPath;

console.log(`Photo location = ${srcphoto}`);

myphoto.innerHTML = "<img src=" + srcphoto + "></img>";

}

}

});

}

</script>

**Properties of FileSystemDirectory & FileSystemFileEntry objects**

window.onload = initPage

function initPage() {

let dropzone = document.getElementById("dropzone");

let listing = document.getElementById("listing");

dropzone.addEventListener("dragover", function (event) {

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let items = event.dataTransfer.items;

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listing.innerHTML = "";

for (let i = 0; i < items.length; i++) {

let item = items[i].webkitGetAsEntry();

if (item) {

let myphoto = document.getElementById("myphoto");

let srcphoto = "file:///N:/Photos/1989-04-00\_SantaCruz" + item.fullPath;

console.log(`Photo location = ${srcphoto}`);

myphoto.innerHTML = "<img src=" + srcphoto + "></img>";

// scanFiles(item, listing);

/\* list properties & methods of item which is a FileSystemDirectoryEntry object

\* or a FileSystemFileEntry object

\*

console.log(item);

let fsKeys = [];

for (let key in item) {

fsKeys.push(key);

}

console.log(fsKeys);

fsKeys.forEach(key => {

let elem = document.createElement("li");

elem.innerHTML = key;

listing.appendChild(elem);

});

}

}

}, false);

\*/

}

}

});

}