

Mysite Requirements

This document defines the Major Requirement for this website.

1. A website that can be built by non-website developers using a smart phone, tablet, laptop, or PC.

The primary requirement is to be able to build a real website (Domain Name, Host Provider (Server), and SSL (Secure)) that can be used by any smart device with standard apps (OneDrive, Drive, DropBox, and Box) to do the following:

- Take some photos on any smart device, editing them, upload them to a Cloud Service, then download them to this website.
- Take 5 or 6 photos and a 1-minute video, then create a movie (with music), upload movie to your Cloud Service, then download them it to this website.

2. Develop a website that displays photos and videos

I have many old picture albums and movies (Super 8), as well as many new digital camera photos and videos. I want to consolidate these onto a single website so they can be viewed by anyone with an internet connection and a smart device with a web browser (Microsoft Internet Explorer, Google Chrome, Apple Safari, FireFox, etc.). Just like looking at your grandparent's photo albums. They had complete control on what was put in those albums, and complete control on who could look at them.

a. Keep Photos and Videos Hidden from Search Engine Histories

I want to be able to limit what photos and videos that can be logged in Search Engine Cache History files, in order to limit browsing of these by unwanted predators.

b. Why a website?

There are many, many companies that provide the ability to store your photos and videos (files). All of these have unwanted features/functions.

i. Facebook

Facebook is free and does a very good job of many social media things. However, you must sign up for a Facebook account if you want to see my photos. I do NOT want someone to have to sign up for any account to view my photos and videos. Just enter the website address in your browser and you're at my website.

Facebook only has two levels of photos in my Photos Section. Organizing thousands of photos in just one level of Albums is very, very poor to useless.

Facebook is being inundated with advertisements. Every time I use it, I keep seeing more and more ads that I don't want to see.

I've had personal experiences with scammers taking over a Facebook Friend's Messenger system and communicating with me as if they are a person I know. I don't want any posting of messages to specific photos or videos.

ii. Others

Others are not free and your photos and videos are kept on their sites. These sites (like Facebook) cannot be viewed by the public without signing up for an account.

3. Use Free stuff as much as possible

a. Free Cloud Services Storage and Functionality

Companies like Microsoft, Google, DropBox, and Box provide free cloud storage (5 to 15 Gigabytes). I started keeping many of my photos on Microsoft SkyDrive (now called OneDrive) many years ago. I can create Accounts with these Cloud Services and store files on them (for free). These companies are highly reputable, secure, and easy to use on all smart devices.

I will start with Microsoft OneDrive as my first Cloud Service implementation. Once it is up and working, I will implement the following, in this order:

1. Google Drive
2. DropBox
3. Box

b. Website Cost

There is “no” free website. At a minimum, I will need a Domain Name (about \$10/year), and a Host Provider (Server) (\$100 to \$200 per year).

c. Development Tools

I will use the free ones as long as they get the job done.

4. My website must be able to access the photos and videos from my cloud service accounts

The Cloud Services provide functions to upload files (photos and videos) to their site. It can be done all smart devices. There are apps for smart phones and tablets. Window and Apple computers also can be downloaded with free software to transfer and manage files on their cloud services.

Accessing Cloud Service folders and files, from my website, in real time, would be extremely slow. My website must be able to Download files from my Cloud Services to the website. Once downloaded, then anyone can quickly view them by going to my website through their browser.

Having my photos and videos on Cloud Services also allows me to easily send the link pointing to one or more photos or videos, via email, Text, etc. Thereby, not filling up another’s person’s device with the actual image, but just a link to it.

And, most important, you have a safe place to store your image files for many years to come, and it’s FREE, if you stay under the size limits.

5. The organization of the Photos and Videos must be simple and extendable (expanding the number of menus and photo and video files)

A simple tree structure would work. This is typical of how most computers storage device (C:/) works. There is a root of the tree named “myWebsite”. In

that folder are 2 more folders (Photos and Videos). In the Photos folder, I start creating how I want my photos organized. Below is a simple example:

- myWebSite
 - Photos
 - Family & Friends
 - Family
 - Grandparents
 - Great Grandparents
 - Mother & Father
 - Brothers
 - Paul
 - Sisters
 - Friends
 - Sally
 - Jimmy
 - Home & Garden
 - Holidays & Vacations
 - Sport & Recreation
 - Videos
 - Family & Friends
 - Family
 - Mother & Father
 - Brothers

These are folder (directory) names. I can put whatever photo files I want in the corresponding folder. Folder can be empty of photos, and just contain more folders. This leaves room for an unlimited number of photos and videos. Typically, I will only keep a specific photo in one folder. I will not put the same photo in multiple folders.

This must be the structure in my Cloud Service Account. My website's Download function must download everything in the root's myWebsite folder and build a Menu structure using the names of the folders. It must store the photos and video files in their corresponding folders in the Server-Side storage device of my website.

As of this writing of the Requirements, I will be separating the Photos and Videos into their own folders. I think I will be using different techniques to be displaying photos and playing videos.

a. Photos – Gallery Display

A Gallery of the photo icons must be displayed when a Photo menu is selected that contains photo files. Clicking on one of the gallery icons will display a full window display of this photo, and then be able to swipe forward and backwards to see the other photos in this folder/menu.

b. Videos – Video Player

A video player will be used to play video files. If there are more the one video file in a folder, a Play List must be presented with the list of video names and select the one to play.

6. This website must be reproducible so it can be sold or rented to others

This is a low priority requirement. If it becomes too difficult or expensive for others to buy or rent, that will be okay.

The goal would be to rent out websites without having to do any new development work. I would build the website for a customer with the same software. This includes getting the Domain Names and Web Hosting accounts. The customer would have their own Cloud Service Account(s) and store their photos and videos in the folder structure defined above.

This new website would be configured to connect to a customer's Cloud Service Account(s) to download their folder names and photos and video files.

Provide free time for potential customers to try out my website with their Cloud Service Photos and Videos. A customer gets to try everything out before making a purchase.

7. The Websites Download Function must include the following:

- Connect to a Cloud Service for Photos
- Connect to a Cloud Service for Videos
- Download All Photos & Videos

- Download All Photos
- Download All Videos
- Download Just New Photos
- Download Just New Videos

I need to be able to store my Photos on one Cloud Service and my Videos on another Cloud Service.

I anticipate that these download functions are going to take a long time to complete, so I want to add 2 Download functions to just download new files and folders.

8. Contact Page

The website must have a Contact page so people visiting this website can contact the owner of the website.

9. Google Analytics

Provide this capability so I can see how many people has visited my site.

10. User Friendly

a. Using the website

Make the user's experience of selecting menus and looking at photos and videos as simple as possible.

b. Uploading photos and videos to Cloud Service Accounts

By the fact that I will be using Cloud Service companies (Microsoft, Google, DropBox, etc.) they will do a good job.

c. Make the process from taking photos from camera to website simple and reliable

The goal is to be able to:

- Take photos with my smart phone or table
- Edit photos (cropping and resizing)
- Upload photos to Cloud Service

- Download new photos to website, using Download function in my website
- Using my website, display these new photos

d. Using iPhone iMovie make a 1-minute movie using the photos and video on my iPhone. Make the process from making video to website simple and reliable

The goal is to be able to:

- Take photos and video with my iPhone
- Using iPhone iMovie make a 1-minute movie using the photos and video just taken
- Using iPhone, upload new movie to my Cloud Service
- Using iPhone and mysite, Download new movie to mysite
- Play new video on my website
- Do all of this in less than 10 minutes, just using my iPhone or iPad

11. Logging of Errors

An Error Log must exist that shows major normal events and all abnormal(error) events. This log must be easily retrieved off any server and saved. The log must be time-stamped (date & time) on every event logged.

a. Major Normal Events

These are events that are intended to happen so a time stamp can be associated with them. Things like:

- The start of a JavaScript module being loaded and executed
- The end of a JavaScript module being executed
- The start and end of a Download function
- The normal flow of displaying photos and playing videos need not be logged. Want to keep the log file at a minimum size

b. Error Events

These are events that should never happen during the normal flow of code. Anytime an error code is returned from any function, it should be logged with module name and as much of an error message as possible.

12. Logging Download Results

During Release 1 (Bread Boarding) it was shown that many errors occurred from the Cloud Services. Each Cloud Service had its own thresholds and would generate errors if these thresholds were reached.

A spread sheet file need to be maintained that tracks the important parts during the Download process.

- Time Stamp
- Name of Cloud Service
- Folder Throttle Value – How long to wait between read folder requests
- File Throttle Value – How long to wait between read file requests
- Which Download Function performed
- Total number of bytes downloaded
- Total time for the download to complete
- Number and types of errors that occurred.