Table of Contents

Original Assignment

Handing down family artifacts over the years and in different cultures and countries

Project Statement

To design and create a web application that allows its user to organise and view important photos on command and share these to relatives who are less technologically inclined.

Project Background

Managing and viewing important photos is always an extremely difficult task. Most photo storing applications store photos in large quantities, without the ability to caption, so important photos are hard to differentiate and difficult to access on command as much scrolling and loading time is necessary. This leads to many photos becoming lost and forgotten, never to be accessed again after being stored. Viewing becomes especially important, however, difficult when is it necessary to share these photos to family members. Many are not technologically inclined, so cannot view them over a computer screen and printing each individual photo is expensive, requiring much effort and time to travel to a professional printer and often results in loss of photos and messy management. Sorting these in photo albums is also a tedious and time consuming task and the album is irreplaceable, so if lost, it would become significantly more unlikely for those photos to be viewed by future generations.

Project Goals

With the use of this application the user will be able to store and caption selected important photos directly from their digital photo storage system in an organised fashion using the ability to create customisable, visually pleasing photo albums. This would allow the user to print many copies and store these in physical files to store privately or pass on to family members for easy viewing on command.

Project Scope

What does it mean to be in-scope and what does it mean to be out-of-scope?

What data specifically will be stored?
Photos, photo descriptions (Long string, approx. 3 lines), photo extra description (paragraph / long text object), photo date (extracted from metadata or manually entered)

Must Have Functions
- Upload chosen photos
- Create new album
- Add photos to album
- View photos easily like in an old style photo album
- Put personalised captions/descriptions on each photo
  - Visible in album view
  - Need to click on photo for description

Should Have Functions
- ~~Upload from Google Photos~~
- Upload photos into an unsorted photo section on the main page so that they can be sorted later
- ~~Delete photos from the main page~~
- Sort albums in alphabetical order on the side of the screen (default - more complex sorting would be an extension)
- Search bar
  - Album name
- ~~Rename album name~~
- Copy the same photo to multiple albums (implemented in back-end)
- Rearrange photos in album easily

Would Like to Have Functions
- ~~Ability to choose background of each album to make it nice to look at~~ (would be a fairly simple extension)
- ~~Ability to change arrangements of photos on each page or entire album using a pre-built template~~
- ~~Sort by date~~
  - ~~Included in main page~~

Could Have Functions
- Categories (foundations are implemented)
  - ~~Categorisation of photos (ie. based on subject - animals, dad, grandma)~~
- ~~Ability to group photos~~
  - ~~Storing photos of items (such as a coin collection) would be easier~~

Won't Have Functions

- ~~Automatic 'neatening' and 'viewing' (manual user tools preferred)~~
- ~~Sub-accounts~~
  - ~~Just one user/pass to share between family members~~
- ~~Sharing capabilities~~
  - ~~Unlikely to share online - mainly through print~~
- ~~Mobile capability (running app on mobile)~~
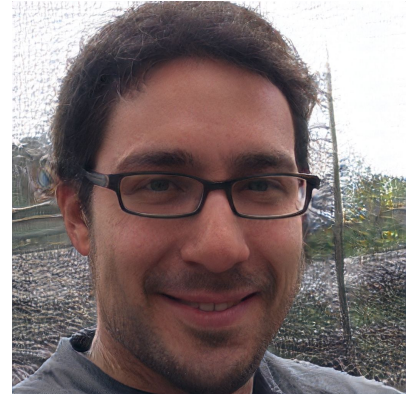
Personas

Tom Price (32)

Background

Tom is a 32 year old Financial Advisor and Father of two boys: Alex (6), and Peter (9). He regularly purchases the latest mobile phone and keeps up with the latest developments, though he doesn't use it for much more than checking Facebook and taking photos.

Tom uses financial software on a desktop computer to manage his clients, and has a pretty good knowledge of how to use it effectively, but regularly forgets his login details and has to reset them.

Tom takes a lot of photos on his phone, but doesn't back them up anywhere since they are just stored on his phone's internal storage, and he can transfer them to his new phone when he gets one.

Frustrations

Tom wants to show his family and friends the photos he's taken, but since all of his photos are only stored on his phone he sometimes finds it difficult to find images.

Janine Hopkins (51)

Background

Janine is a 51-year-old Government Worker. Her main focus outside of working hours is her vegetable garden and her two Dogs (Charlie and Leo). Janine likes to travel, though not for too long since her dogs get lonely if she doesn't have a sitter, and she prefers not to inconvenience people too much. Janine likes to sit after work and watch Netflix with her dogs, and can often be seen scrolling through her social media feeds in the evening to catch up on what her friends have been doing, but she doesn't really use much technology outside of this.

Wahid Nassar (17)

Background

17-year-old Wahid is currently studying his VCE and is very active in his local community in volunteering programs and part-time work at the local supermarket. Wahid can often be found in community events aimed at young people, more often than not on the organisational side.

Wahid likes to read comic books in any spare time that he has, though at the moment his spare moments are fleeting. Wahid is

currently learning to drive, and so will often drive the family to drop off his three brothers at school before driving to his own school for driving practice.

(All the images for personas that look like people's faces are taken from generated faces on https://thispersondoesnotexist.com/)

Rio Nightingale (60) - Client

Background

Rio is a 60 year old retired housewife who spends her days at home. As she earns an income from writing blogs, so she is familiar with web applications such as wordpress and often explores the internet and uses websites such as Youtube. As she finds her huge stack of handwritten notes extremely difficult to organise and look through, she has recently became an avid OneNote user and enjoys rewriting and organising her notes into pages and folders in a digital setting.

Rio's hobbies are house design, gardening and pottery and she enjoys putting time into making areas of the house visually pleasing through choosing furniture, colours and designs so that her husband can renovate the area into her preferred aesthetic.

Frustrations

Rio is finding it progressively difficult to learn new skills and struggles quite often with all of the things she still needs to learn about blog writing and applications on the internet. She has also recently hurt her hand through the overuse of the mouse and is currently in the process of trying to learn and get accustomed to shortcut keys. She also often forgets her password. loses the places where she stores them and worried about the security of her passwords.

Rio takes many photos on her phone and uploads them all onto Google Drive to save space on her phone. She enjoys viewing these photos from time to time, however, struggles with the loading time of each photo due to the large amount of photos she has stored on the software. She enjoys making folders of her favourite photos, printing them out and sending them to her mother (92), in a remote area of Japan, who has many, many envelopes of photos that have accumulated over the years. As Rio only goes to Japan once a year, she finds taking all these photos is tricky with limited hand luggage weight and space. She has also found the process of printing and sending the photos to be quite expensive, so she over recent years, has started taking her iPad over to Japan and showing her mother through that. Though, she truly wishes she could give copies of these photos to her mother directly so she can view them whenever she wants.

Rio has created many photo albums of her children when they were young, however, has not created them in recent times as it is very tedious to do due to the sheer amount of photos she takes. She would like to give these albums to her mother but cannot as she views them herself fairly regularly and enjoys showing these albums to her close friends at home.

User Stories

This is a list of stories that everyone is free to add to, but I've added a few to get started with so that we can flesh out some of the required features more specifically and cater to the needs of the project properly.

StoryID	User	Story/Scenario	MosCoW Priority
EX	(User type group)	Some info about what they want to do (I want to Y so that I can Z)	Must Have (M) Should Have (S) Could Have (C) Won't Have (W)
01	Rio	I want to upload photos from my Google Photos so that I can organise them	M
02	All Users	I want to organise uploaded photos so that I can keep track of them	M
03	Rio	I want to view my photos in the application so that I can look at memories whenever I want to and show them to family and friends	M
04	All Users	I want to add my own custom captions/descriptions to photos so that I can keep track of related information	M
05	All Users	I want to be able to sort pictures by attributes so that I can see the items that are relevant to me	S
06	Rio	I don't want to have to categorize everything I upload since it would be too big of a task to complete all at once	M
07	All Users	I want to be able to update information so that any mistakes I make can be corrected	M
08	All Users	I want to be able to share parts of my collection with family and friends so that they can enjoy my memories as well	S
09	Rio	I want to be able to easily print my photos so that I can show them to my mother who can't use a computer	M
10	Wahid (Student)	I want to be able to associate photos to physical objects so I can keep track of their location	C

| 11 | All Users | I want to be able to protect entries from unexpected modification by other users so that the information is accurate | S |
| 12 | Tom | I want to be able to upload images easily from my phone so that I don't have to connect my phone to the computer | W |

Use Cases

Procedures a user will undertake to achieve the final goal of creating customised digital albums using photos of their choice.

C0. Log In (S01)
1. The user loads the application using a set URL
2. Once the Login page has loaded, user types their email and password where prompted
   a. If incorrect, display an error message
   b. If user forgets password, clicks 'forgot password?' button and email for resetting password is sent to user's given email and alert is displayed on the login page.
3. User clicks `log in` or 'create an account' to proceed to the next page

C1. Upload Photos (S01, S06)
1. The user will click an "upload" button to be taken to a google photos API selection
2. The user selects photos they wish to add to the application
3. The user clicks "upload"
4. The user is sent to a page to view the progress of the upload where they can add details or add photos to albums if they desire
5. Any unassigned photos are added to the home screen to be sorted later

C2. Add Description / Edit Photo Information (S04, S07)
1. The user will click a photo on any sorting page (album, main screen, other collection of photos)
2. The user is sent to a description page where they can add a description, a caption, and/or a number of other information fields
3. The user enters the information they want to store
4. The user clicks "Save"
5. The user is sent back to the page they were previously on

C3. Create Album (S01)
1. The user will select photos and add them to an album or be given the option to create a new Album
2. The user will be taken to the album overview page where they can choose an attribute to sort photos by and manually arrange photos

C4. Add photos to Album (S02)
1. Select one or more previously uploaded photos from the uncategorised set
2. Click "add to album"
3. Select the album you want to add the photos to

   Or

4. Open the sidebar to view albums
5. Type into the search bar the name of the album you want to add the photos to
6. Click an existing album or click "create" to create a new album with that name

C5. Remove photos from Album (S02)
1. From an album page, select the photos you want to remove
2. Click "remove" to remove the photos from the album
   a. Removed photos should be placed in the uncategorised album if they are not otherwise categorised

C6. Selecting a Template for an Album (???)
1. From an album page, or from the album overview page, select the edit option
2. Select the new template, or create one

C7. Selecting a Wallpaper/Background for an Album (???)
1. From an album page, or from the album overview page, select the edit option
2. Select an image to be the background (for the entire album, or simply for the given page) or upload one.

C8. Print an Album (S09)
1. User selects an album of preference
2. User selects print option on the album page
   a. User is given an option to choose how they want the album page to be printed (PDF / Web Page [/ Custom export?])
3. All pages of album are printed, the user is returned to the album page

C9. View all Photos (S02)
1. From the main page, the user selects "All Photos"
2. The user is taken to a view where they are able to browse all photos in the service

C10. Search for a Photo (S05)
1. On the main page, the user clicks "All Photos"
2. The user can then sort by a number of fields
   a. Date
   b. Upload date
   c. (others?)
3. The user then uses generated selection buttons based on the field with which the page is sorted to filter the results
   a. "2006"
   b. "July"
      etc.
4. The user is able to perform operations from this view as they normally would from the main page

Functional Requirements

These are requirements which affect how the program behaves

Albums
- Adding Photos
- Add albums
- ~~Removing Photos~~
- A collection of photos where photos can be in many different albums.
- Flip through album pages
- Rearrange photos
- ~~Photos have captions associated with Albums~~
    - ~~Ie. the photo can have a different caption depending on which album it is in.~~
- ~~Rename Albums~~
- Change how photos are viewed
    - ~~Album Background~~
    - ~~Format/Template of specific pages of Album~~
    - Format/Template of entire Album
        - Overruling behaviour
        - What happens when the client changes the overall formatting
        - Are specific pages affected

Photo Viewing
- ~~Each photo has a single description related to it~~
- Expand photos
- Click through photos in a slideshow

~~Delete Photos~~
- ~~Delete all instances~~
    - ~~Need to be sure to delete all references to the deleted photo~~
- ~~Remove from Album~~
    - ~~Need to ensure the reference isn't lost = add it to the uncategorised album if it is not in another album.~~

Could Have Functional requirements

Searching
- Album Name
- ~~Date~~
    - ~~Less important but still 'nice'~~
    - ~~Rip photo date out of meta-data?~~
- ~~Filters~~
    - ~~By name~~
    - ~~By date~~
    - ~~Photos only~~

- - - ~~All~~
    - ~~Within Specific Album~~
  - ~~Albums only~~

Sorting
- ~~Date~~
- ~~Alphabetical~~
- ~~All Albums~~
- ~~All Photos?~~

~~Copy Photos from Albums~~
- ~~Add a photo from one album into another album (reference + caption)~~

~~Move Photos between Albums~~
- ~~Copy a photo to another album + delete from old album in one operation~~

PRINT or EXPORT
- Albums (with associated styling)

Non-Functional Requirements

These are requirements which do not affect how the program behaves fundamentally, but might change how it looks or feels

Would like to use this application in real life
- Lifespan beyond this subject

Security
- Private enough to keep strangers from accessing content inside account and photos appearing anywhere on internet
- Only need to encrypt/hash username & password

Shareability
- Will not be sharing anything outside account

Speed
- Not many people accessing account at once
- Only need bandwidth for a small (<5) people at a time

Scalability
- Will constantly be uploading more new photos
- Storage size (need Database analysis first)

Interface Design
- Large Font for UI
- Simple understandable self explanatory language for UI
- Easy, straight forward navigation of application
- Suitable for a 60+ year old client
- Large easy to read font easy to read
- Simple Understandable Self Explanatory Language
- Easy, straight forward navigation of application
- Shallow learning curve
- Reusing many concepts from other familiar applications.
    - Shortcuts
    - Language
    - Functions
    - Process