Photo Organization: Requirements and User Analysis

A. Requirements

i. Overall Objective

The objective of this software is meant for novice users to edit and organize photos normally taken by their smartphones. This is not meant for professional users with heavy functions and tools when handling with images, but rather for quick and light tools that can easily organize and edit photos. This software supports not only mobile devices such as Android or iOS, but also Windows and has user-friendly, simple and neat UI that provides convenient UX.

ii. Major functional requirements

1. Add personalized tags to image for sorting
2. Search image by date and location
3. Crop out people from background

iii. Major UI requirements

i. Functional

1. Have drop down menu instead of icons for tools for editing
2. Intuitive icons for searching and tagging images
3. User can determine who many images they see on screen with various grid sizes

ii. Non-functional

1. Clean and neat
2. Large area dedicated for editing and selecting images
3. Dark background color and bright fonts to lessen stress on the eyes of users

iv. Other considerations

i. Light software

ii. Supports Android & iOS and Windows

iii. Online instant synchronization between platforms

iv. Targets novice/intermediate users

v. Not meant for professional photo-editing tools like Adobe Photoshop, but rather for quick and simple organizing and editing photos

B. User Analysis

i. User interview

i. Mr. Kim, male, 21, major in Computer Science.

ii. Mr. Kang, male 26, major in Electrical Engineering.

ii. Major direct user requirements

i. Convenient and simple way to sort images

ii. Tag image and sort automatically by tags

iii. Automatic synchronization of images between various platforms (PC & phone)

iii. Major cognitive/ergonomic requirement

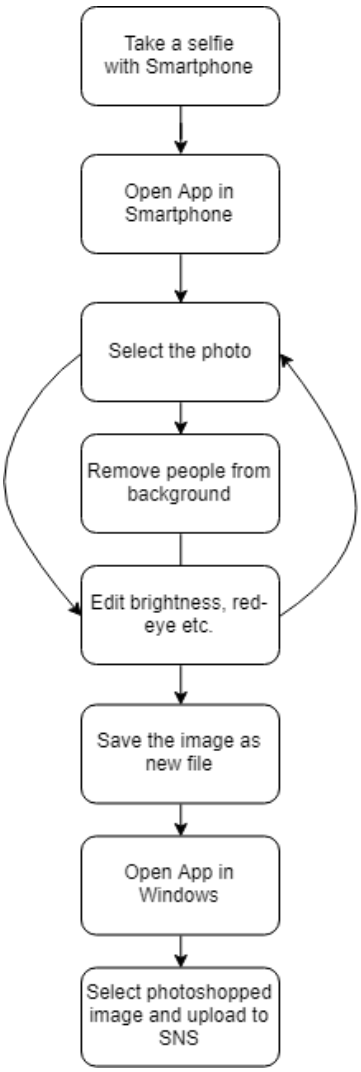
i. Clear and pretty UI

ii. Not complicated/simple UI

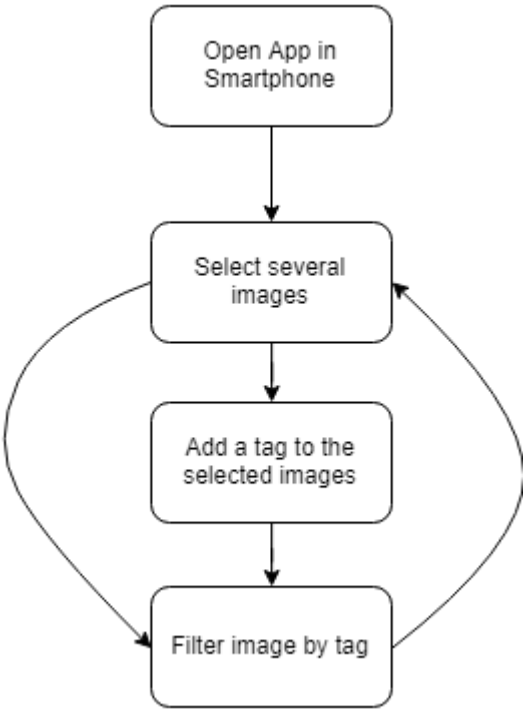
iii. Tidy menu to select over icons located at bottom of the screen

iv. Usage scenarios

i. Editing photo taken by smartphone and upload to SNS



ii. Tag and organize photos



v. Rough Interaction Model (GOMS model) using times proposed in [1] for KLM

i. Quickly Group Images

Action Sequence	Operator Sequence
1. Select Images folder	Tap
2. Touch and hold photo	Tap
3. Hold and drag photos to select selection	Swipe
4. Touch add tag icon	Tap
5. Type tag name as “Jejudo”	Keystroke
6. Touch save button	Tap

Total time = 4 tap + 1 swipe + 6 keystroke = 4x80 + 1x120 + 6x280 = 2.12s

ii. Search Image by Date & Location

Action Sequence	Operator Sequence
1. Touch search icon	Tap
2. Type “Jejudo” to search	Keystroke
3. Touch search icon	Tap
4. Select image(s)	Tap

Total time = 3 tap + 6 keystroke = 3x80 + 6x280 = 1.92s

Reference

[1] Karim El Batran, Mark D. Dunlop. Enhancing KLM (Keystroke-Level Model) to Fit Touch Screen Mobile Devices. ACM, UK 2014