# Requirements analysis – Image collection expander

**What the application will do:** “Image collection expander” will be an application which will allow users to manage their image collections and increase them based on different criteria. A user will be able to upload photos and add some information, like tags, content, context and location. Based on this data, the application will be able to classify them and find some related new media files. The user will have the possibility to add the resulted images to his own collection or to share them on other platforms. Also, if a user will add an image to his collection, and that image will fit to another user’s collection, that user will be notified about that.

**What kind of users will use this app:**

* persons who like to save interesting images found on the web or from their own phone and to have them organized well, in collections
* persons who want to expand their image collections with other similar images
* persons who want to share images from collections on a social-media platform
* persons who work in digital images processing and need an extended collection of images
* photographers
* designers

**Some technical things** about “Image collection expander”: this application will have a **back-end part**, created either in Java or .NET, as main frameworks and **a front-end part** - an IOS application which will communicate with the back-end by making HTTP requests to the REST API offered by the service and receiving HTTP message responses. Json data format will be used as data format send in the HTTP response body. The back-end part will use responses from external API’s like Flickr API or Getty Images API to expand an image collection of a certain user.

The major components of “Image collection expander” :

* The authentication module: this component will handle the login part of the application, based on Facebook profiles. The application will check the database if the user is a new one or if it already exists. When a new user login into the application, his Facebook profile id and his email will be saved into the database and the images collections will be bind to them.
* Image collections manager module: the component where the user can manage his image collections; he can add or remove a collection and edit its details. A collection is defined by name (mandatory detail), creation date (automatically detected by the application, when the user tap the “Create” button; cannot be edited), the recurrent tags of the images in the collection (automatically detected by the application based on the images added; cannot be edited by the user). When a collection is deleted, it cannot be recovered.
* Image collection manager module: the component where the user can manage a certain image collection, where he can expand it or minimize it by deleting some images. The user will be able to upload images in the collection and add some details to it, like description, tags, sort order, age of people, number of people. Based on these details and the location of the image (data read from exif data) or the predominant color, the application will recommend to the user similar images and he can add them to the current collection or ignore them. If a user delete an image from collection, the other images added based on the deleted one will be kept into the application and the collection’s list of tags will be updated.
* Share module: the component where the user can share an image on Facebook and add to it a description.

Improvements:

* Notifications module: the component where the user is notified that another user uploaded a similar photo with other photos it has in its collection/collections.