# Comp41550 – Assignment 3 – FlickrBrowser
## (revision 1.0)

In this assignment, you will create an application to browse pictures on Flickr from geolocation information and let users pick favorites. You will use MapKit and CoreData.

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**Part 1 Objectives:** This first part is to create a navigation-based application to let users pick a location on the earth using MapKit and retrieve a set of tags for pictures geocoded with that location, fetch and display selected photos. The code is provided for this part and you will interact mainly at storyboard level.

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1. Create a empty project calledFlickrBrowser for the iPhone ensuring that you have support for CoreData.
2. Add iPhone storyboard to project, set the Main Interface in the Deployment Info of your project to the new storyboard, and remove all code in function stub application:didFinishLaunchingWithOptions: of the AppDelegate.
3. Add MapKit to the Linked Frameworks and Libraries.
4. Add the provided resources files to your project and enter your Flickr key in FlickrAPIKey.h.
5. Study carefully the provided TagsTVC and MapVC model-view controllers along with the FlickrFetcher object. The idea is to built a navigation controller pushing a number of view controllers. The root view controller will display a button on the navigation bar to show the model MapVC and allow the selection of a location on the map. Note the name of the segues, the protocol mechanism to show and dismiss the modal view and the name of the prototype cell.
6. Create a simple tableview controller of custom class TagsTVC and embed it in a navigation controller. Add a button to the navigation bar and connect the target-action to showMapVC:
7. Repeat with a button to clear the table view connected to the target-action clearTVC:
8. Add a plain view controller of custom class MapVC with a MKMapView subview linked to the class property mapView.
9. Add a modal segue between the TagsTVC and the MapVC. Presentation of the MapVC is done programmatically. Ensure your segue identifier is correct.
10. Built and run. You should be able to pick a location on earth and get photo tags from Flickr. You can change the tableview style to grouped and customize the TagsTVC to your like.
11. Study the PhotosTVC and PhotoVC classes.
12. Add tableview controller of custom class PhotosTVC and create push segue from the cell of your TagsTVC. Ensure the identifier is correctly defined so that the model is properly set when performing the segue and cells are correctly dequeued.
13. Add a plain view controller of custom class PhotoVC with a UIImageView subview linked to the class property imageView. Create push segue from the cell of your PhotosTVC. Once again ensure that your segue's identifier is set correctly.

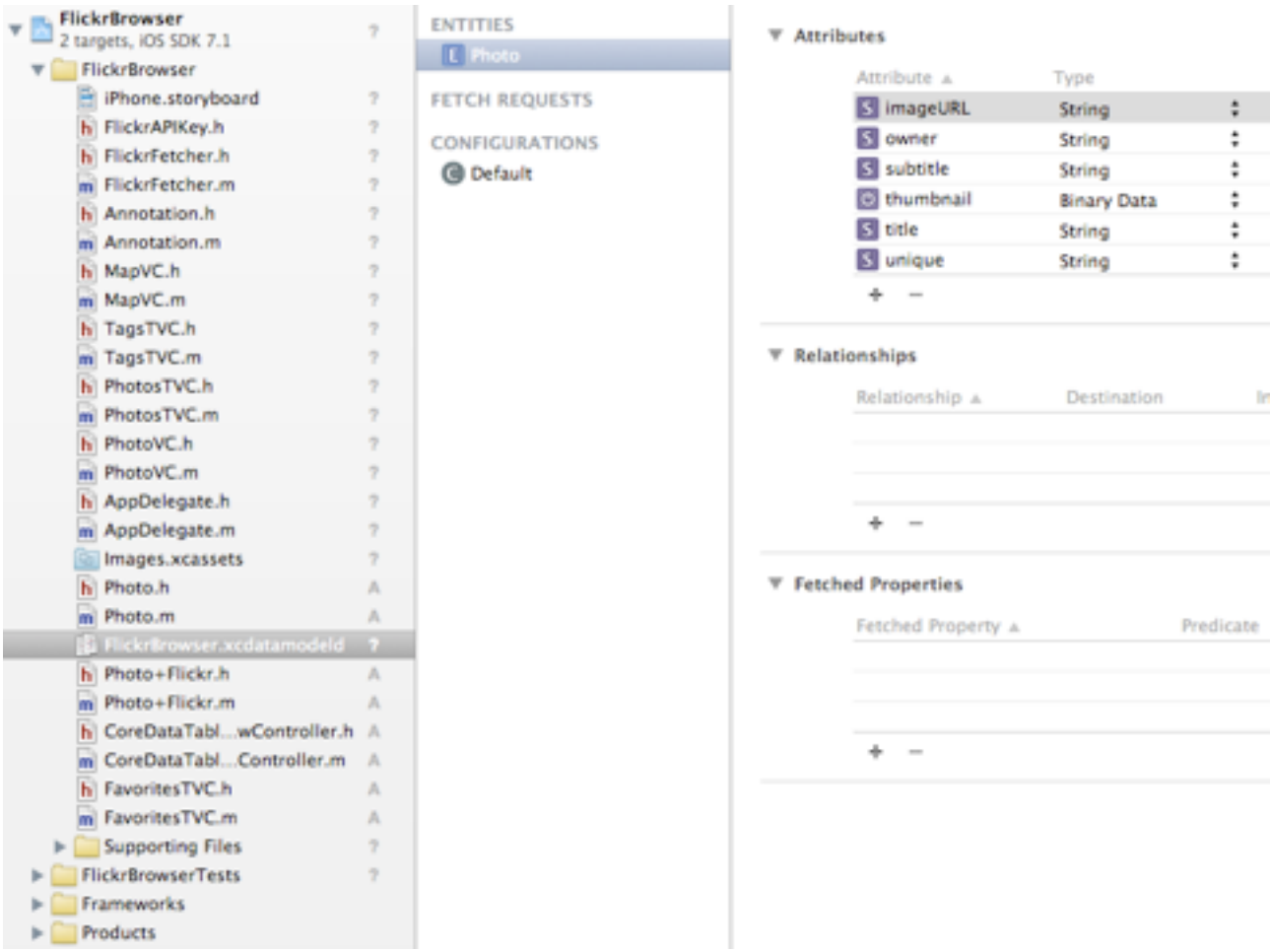
14. Your story board should look similar to the figure below.
15. Built and run. You should be able to navigate all the way to large image view showing a single photo.

**Part 2 Objectives:** The primary goal this part is to get experience with creating a CoreData model and objects in the associated database, and querying the database via NSFetchedResultsController in a table view environment. You will embed your navigation controller in a tab bar controller and add a new tableview controller to show a list of favorite pictures stored in CoreData.

1. Embed you navigation controller in a tab bar controller.
2. Add a new table view controller to your story board that will be set to the custom class FavoritesTVC.
3. Embed it in a navigation controller and create a relationship segue with the tab bar controller.
4. Create a segue from the cell of your FavoritesTVC to the existing PhotoVC so that you can display the selected photo from your CoreData favorites. Your storyboard should be similar to the picture below.


5. Create a core data entity with attributes as shown below. Create a NSManagedObject subclass called Photo for your new entity.
6. Import the Photo+Flickr category and the CoreDataTableViewController class to your project.
7. Create a custom CoreDataTableViewController subclass called FavoritesTVC. Ensure your storyboard class names are correctly set.
8. In the viewDidLoad of the FavoritesTVC class , initialize the fetchedResultsController property appropriately.
9. Implement tableView:cellForRowAtIndexPath: and prepareForSegue:sender: to complete the CoreData table view behaviour.

10. Add a swipe to delete feature on the FavoritesTVC cells to remove an item from the CoreData favorites.




11. Your application should have a behaviour as shown in the sample app look & feel screenshots.

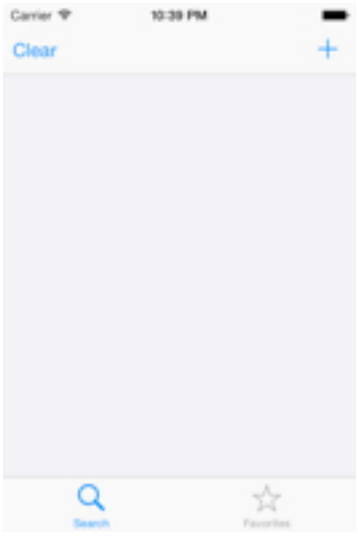
***Evaluation:*** You will be marked on quality of code, some reasons for losing marks include

- Project does not build
- Project builds but has warnings
- One or more tasks not completed
- Code is sloppy and hard to read (e.g. indentation is not consistent, etc.).
- Your solution is not clear and variable/method names are not well chosen.

### *Sample App Look & Feel*

These screen shots are only meant to be examples. Your actual implementation may vary from this and it is fine as long as required tasks are completed. Also the data from Flickr may be changing and might be different form what is shown below.

Tap Add



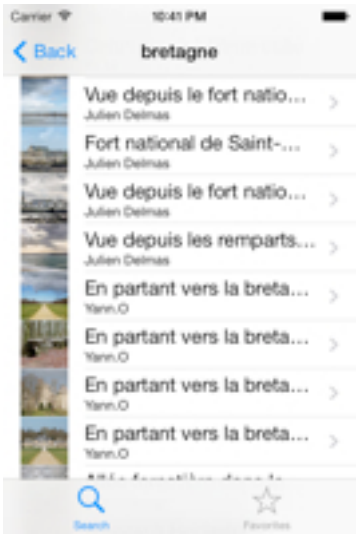

Navigation – PhotosTVC

Select Location


Photo VC – Add to Favorite

After Fetch, TagsTVC


Add to Favorite Button Hidden




FavoritesTVC


Add to Favorite Button Hidden