

# PixFinder App

This sample app shows some aspect of clean architecture using MVVM pattern, dependency managers, application flow coordinators and most importantly all the latest Apple's native support available in iOS 13 such as `UICollectionViewCompositionalLayout`, `NSDiffableDataSource`, Dark mode support, `Combine` and some portion of the UI is done via `SwiftUI`

## Some key points:

- **MVVM architecture**
  - Loose coupling of layers
  - For unit testing of all layers (pending, work in progress)
- **3 Layer App architecture**
  - Data Layer
    - ◆ Network related tasks
    - ◆ Service & HTTP clients
  - Domain Layer
    - ◆ UseCase & business logic
  - Presentation Layer
    - ◆ The UI layer code using UIKit & MVVM - VCs & VMs
- **Custom Error Handling**
  - At network layer error is mapped in custom way
  - Offline / Network disconnected error is shown separately
  - Any other generic errors are also mapped
- **Adaptive layout**
  - Designed for both iPhone & iPad
  - Size Class detection and custom collection view layout
- **Custom Theme & Dark mode support**
  - Custom fonts
  - Custom colours
  - Defined globally in `**Theme**` to use consistently
- **Custom Accessibility & Dynamic Type**
  - Custom Font `Avenir` used
  - **Dynamic Type** Supported to scale font up/down as needed for Accessibility
  - Accessibility Ids are attached for future UI testing
  - Correct labels are attached to elements for Voice over
- **Localisations support**
  - .strings file based localisation
  - English, French, Spanish are supported
  - Keywords are searched to `Pixabay API` based on device locale to get the photo results localised
- Use of **Combine**

- Reactive paradigm
- Using publisher/subscriber (Thank to Apple)
- Detail page navigation
  - Done via SwiftUI (as add-on)
  - Using HostingViewController while being navigated
  - Custom layout with passed in ViewModel from the UIKit's list view
- **Unit Testing**
  - **Pending**
  - About to write for each layers and entities done via Protocol abstractions
  - Would use Quick / Nimble for easy and cleaner organisation
  - See here: <https://github.com/arinjoy/MyCountry>
  - <https://github.com/arinjoy/MyCountry/tree/master/MyCountryTests>
- **UI testing**
  - **Pending**
  - Would perhaps attach a 3rd party library to mock network layer code
  - See here: <https://github.com/arinjoy/RewardsApp>
  - <https://github.com/arinjoy/RewardsApp/blob/master/RewardsUITests/RewardsUITests.swift>

## Screenshots:

Network Provider

08:49

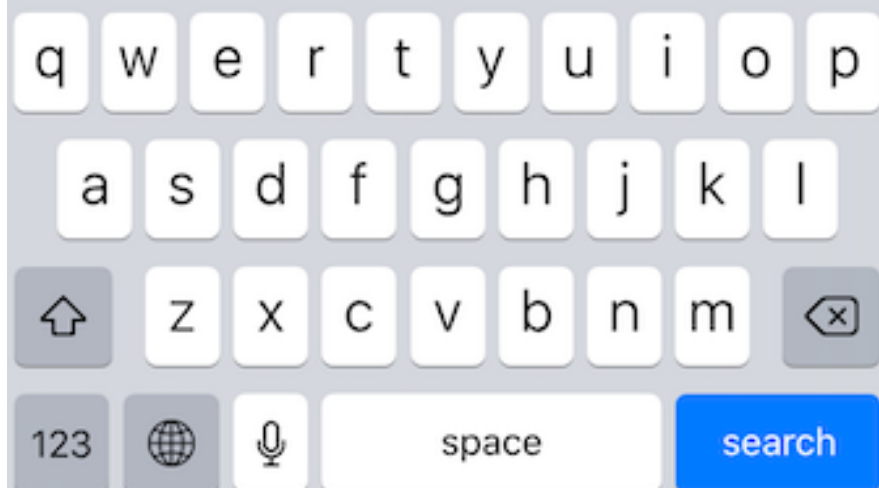


## Pix Finder

🔍 Bird



Cancel





## Pix Finder

Bird



Cancel

By: **JillWellington**

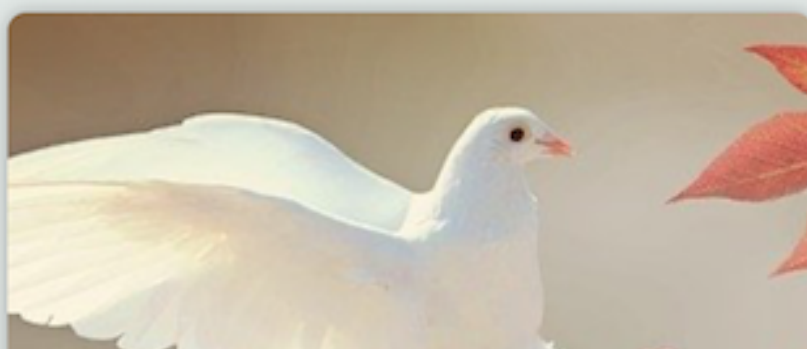
spring bird, bird, spring

1.5K

174

1.6K

386.6K



Network Provider

08:50



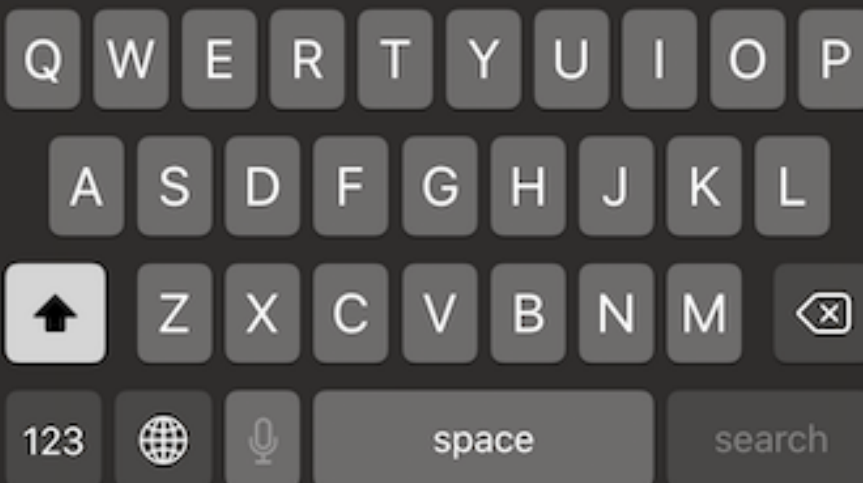
## Pix Finder

Search

Cancel



Search for a photo



Network Provider

08:50

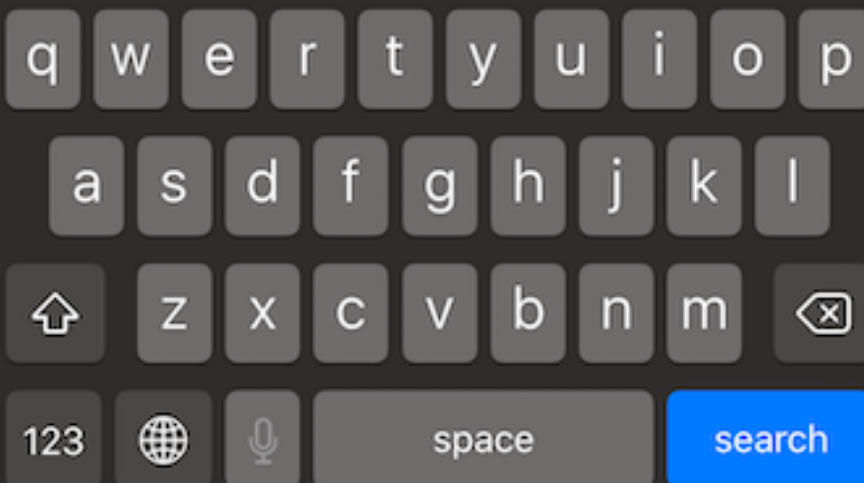


# Pix Finder

🔍 Cat



Cancel



Network Provider

08:50



## Pix Finder

🔍 Bird



Cancel



By: **cocoparisienne**



dove, bird, animal

👍 1.4K

💬 171

❤️ 1.5K

📎 437.7K



Pix Finder

Cat

Cancel



By: **susannp4**



cat, young anim

1.5K 179

1.3K 244.9K



By: **Bessi**



tree, cat, silhoue

1.4K 178

1.2K 148.7K



By: **Ty\_Swartz**



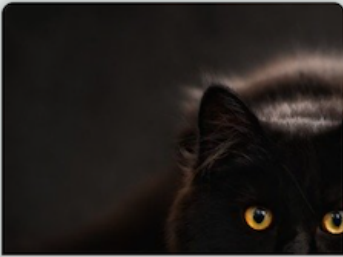
kitty, cat, kitten

1.1K 134

842 128.9K



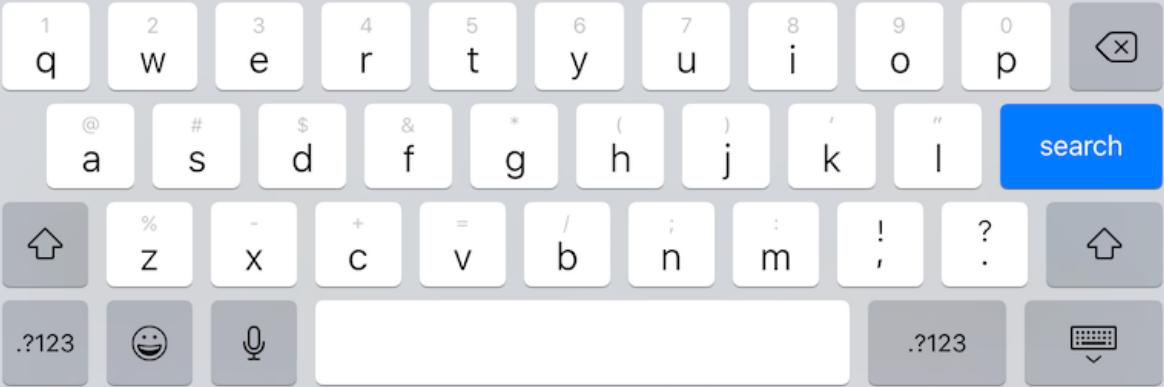
By: **cocopar...**



By: **Claudia...**



By: **TeamK**





## Pix Finder

Q Car

Cancel

By: **Greyerbaby**

legs, window, car

1.4K 231  
1.7K 237.6K

By: **JillWellington**

vintage 1950s, pretty wom

883 89  
940 102.2K

By: **Free-Photos**

taxi cab, traffic, cab

773 104  
874 418.0K




Network Provider 

08:51



## Pix Finder

 Ca



Cancel




You're offline

Seems like you're not connected to Internet. Please make sure that you have WiFi or Mobile network.



## Pix Finder

 Catijk

Cancel



No results found

Please try again with other keywords.

Network Provider

08:54



## Pix Finder

🔍 Cat



Cancel



Can't load search results


Seems like there might be some technical issue. Please try again.

Network Provider 

08:55



## Pix Finder

 Cat



Cancel



Can't load search results

Seems like there might be some technical issue. Please try again.

**Dynamic Type Support:**

Network Provider

09:12



## Pix Finder

Search

Cancel



Search for a photo





## Pix Finder

Dog



Cancel

By: **Vizslafotozas**

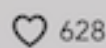
dog, animal, portrait



501



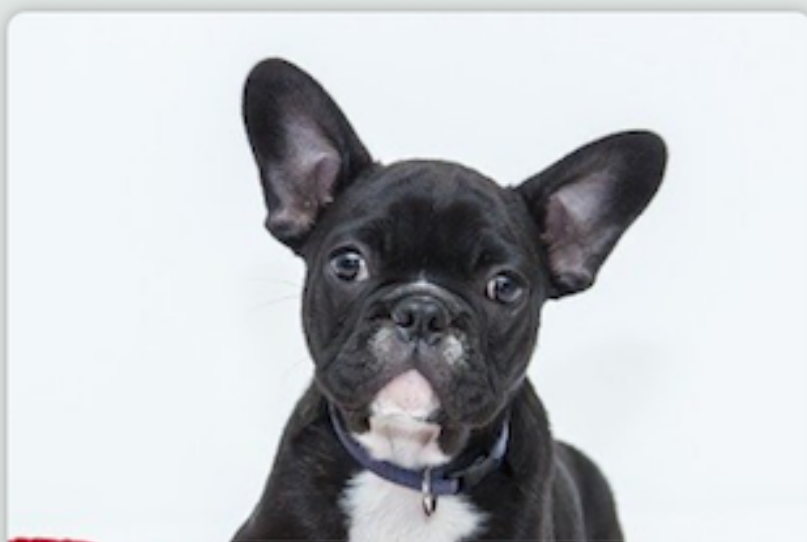
62



628



68.7K

By: **vlaaitje**

bulldog, puppy, dog



531



74



## Pix Finder

Dog



Cancel

By: **Vizslafotozas**

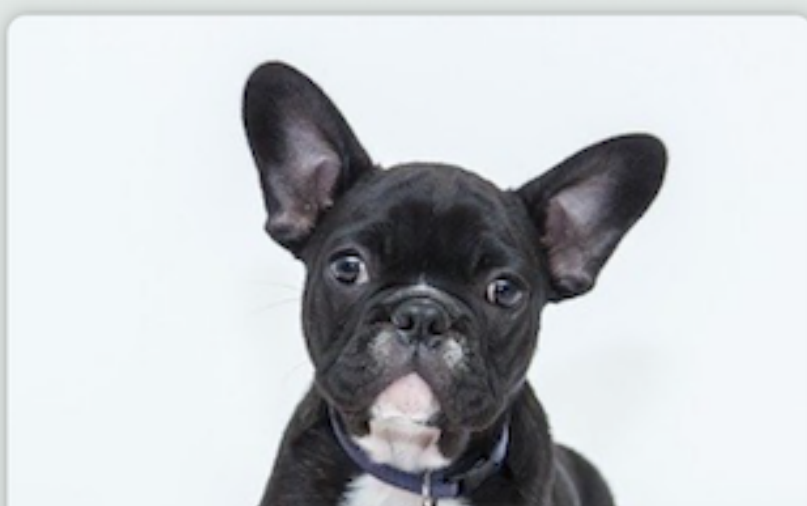
dog, animal, portrai

501

62

628

68.7K

By: **vlaaitje**

bulldog, puppy, dog