



# Take-Home Assignment: Android TV “Photo Search” App

## Objective:

Develop a simple Android TV application that utilizes the Unsplash API to facilitate photo search app.

## User Interface:

Ensure that the user interface closely resembles the provided mockups.

## Functionality Overview:

### 1. Initial Display:

- On launching the app, display a grid of randomly selected photos from Unsplash.
- Utilize the following API for fetching random photos:  
Unsplash API - Get a Random Photo  
(<https://unsplash.com/documentation#get-a-random-photo>).

### 2. Photo Cards:

Each card displayed should include:

- The date the photo was created (`created\_at`).
- The username of the photographer.
- Up to three tags describing the photo.

### **3. Infinite Scrolling:**

- As the user scrolls down, dynamically load the next set of photo thumbnails.
- Use a placeholder image (e.g., an empty gray box) if the photo is still loading.
- Ensure smooth scrolling and efficient memory management.

### **4. Search Functionality:**

- Users can type a tag into the search field or use voice search.
- Upon executing a search, query the Unsplash API to display relevant photos using this endpoint: Unsplash API - Search Photos (<https://unsplash.com/documentation#search-photos>), with the query parameter set to the user's input.
- Replace the main grid with the search results as depicted in Mockup 2.

### **5. Alternate Search via Unsplash API:**

- Post-search, use the Unsplash API to fetch and display results on a refreshed main page.
- Update the page title to reflect the searched term.
- Display "No search results for <search term>" if no results are found.

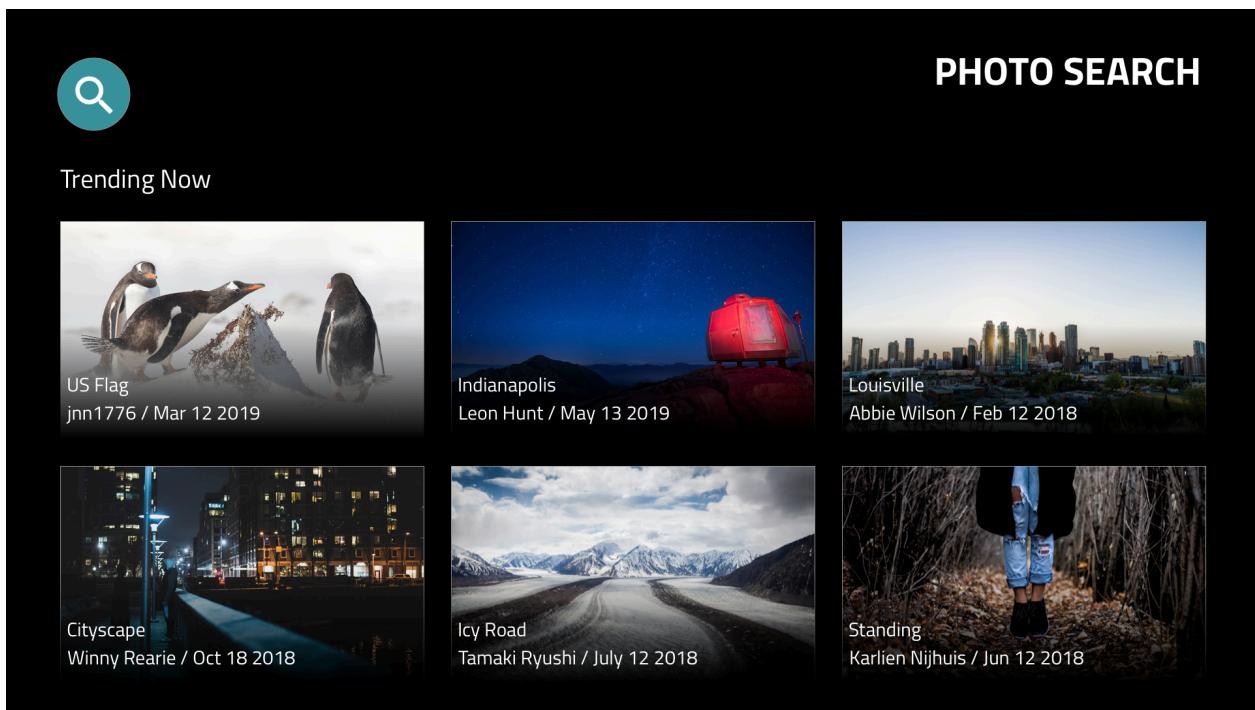
## **Additional Requirements:**

- Utilize only the native Android framework, standard androidx libraries, and networking libraries like Retrofit.
- Consider variable photo card sizes to accommodate different aspect ratios from Unsplash, or alternatively crop photos to fit a uniform card size.
- Submit the final source code and an APK file for installation on an Android TV box.
- Quality and organization of the code will be a significant factor in the assessment.

## **Future Considerations:**

This project may be extended or modified in later stages of the interview process.

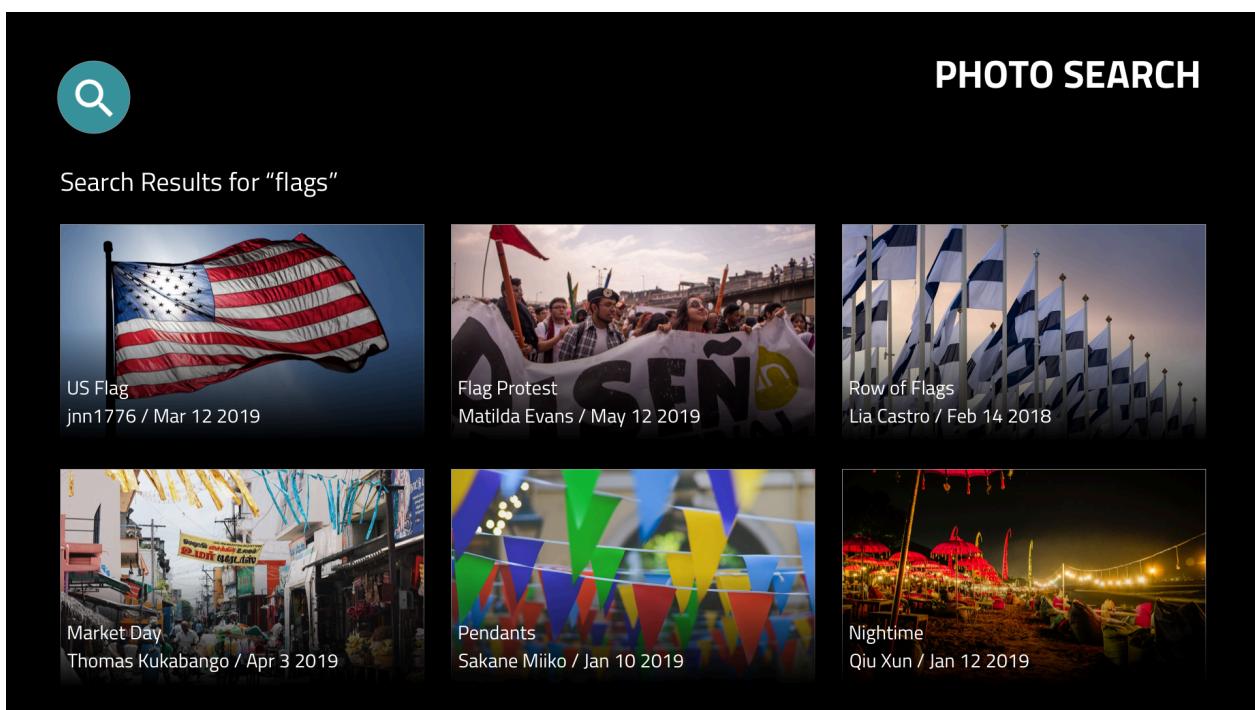
## Mockup 1 : Main Screen - Trending Now



The interface features a dark background with a teal circular search icon containing a white magnifying glass in the top-left corner. In the top-right corner, the words "PHOTO SEARCH" are written in white capital letters. Below the search icon, the text "Trending Now" is displayed in white. The main content area contains six photo cards arranged in two rows of three. Each card includes a thumbnail image, a title, and a caption with the author's name and date.

- US Flag**  
jnn1776 / Mar 12 2019
- Indianapolis**  
Leon Hunt / May 13 2019
- Louisville**  
Abbie Wilson / Feb 12 2018
- Cityscape**  
Winny Rarie / Oct 18 2018
- Icy Road**  
Tamaki Ryushi / July 12 2018
- Standing**  
Karlien Nijhuis / Jun 12 2018

## Mockup 2: Main Screen - Search Results



The interface has a dark background with a teal circular search icon containing a white magnifying glass in the top-left corner. In the top-right corner, the words "PHOTO SEARCH" are written in white capital letters. Below the search icon, the text "Search Results for 'flags'" is displayed in white. The main content area contains six photo cards arranged in two rows of three. Each card includes a thumbnail image, a title, and a caption with the author's name and date.

- US Flag**  
jnn1776 / Mar 12 2019
- Flag Protest**  
Matilda Evans / May 12 2019
- Row of Flags**  
Lia Castro / Feb 14 2018
- Market Day**  
Thomas Kukabango / Apr 3 2019
- Pendants**  
Sakane Miiko / Jan 10 2019
- Nightime**  
Qiu Xun / Jan 12 2019