

# SOFTWARE REQUIREMENTS SPECIFICATION FOR SNAP

**Version 0.5**

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## 1.0 INTRODUCTION

### 1.1 PURPOSE

This document specifies the functionality and features of the software, Snap.

### 1.2 SCOPE

This application allows users to:

- Search images
- View images

Possible additional features can include:

- Videos
  - Searching
  - View playback
- Speech-to-text searching
- Filtering
  - Photographer
  - Image
    - Resolution
  - Video
    - Resolution
    - Duration
- Configurable settings
  - Number of results per page
  - Turning search while typing on or off

### 1.3 PRODUCT PERSPECTIVE

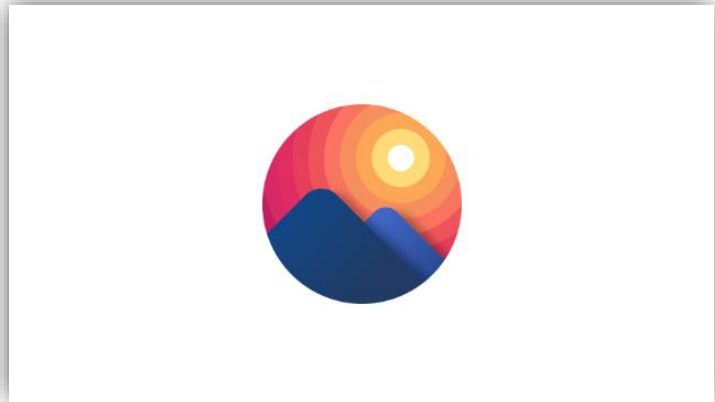
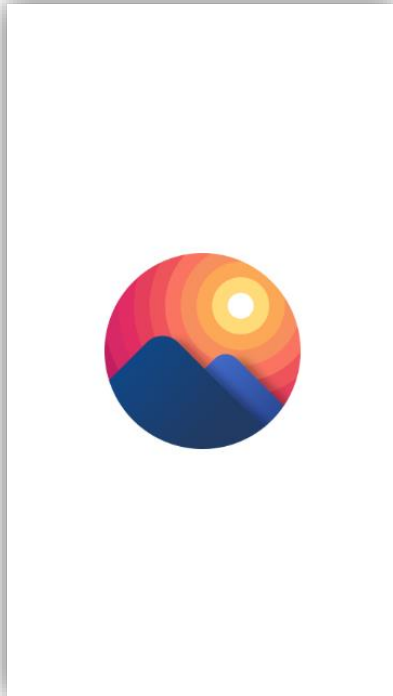
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#### 1.3.1 SYSTEM INTERFACES

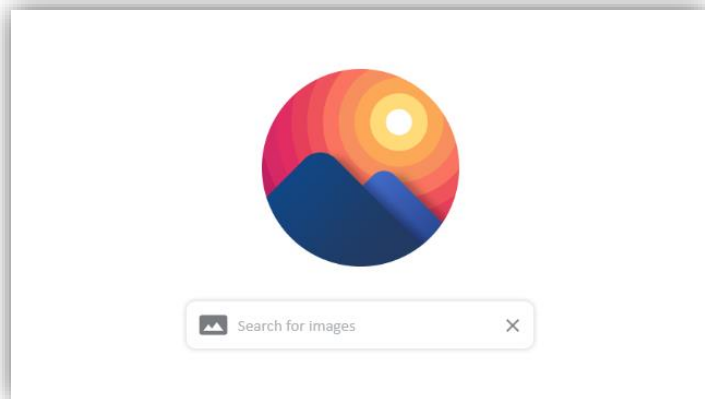
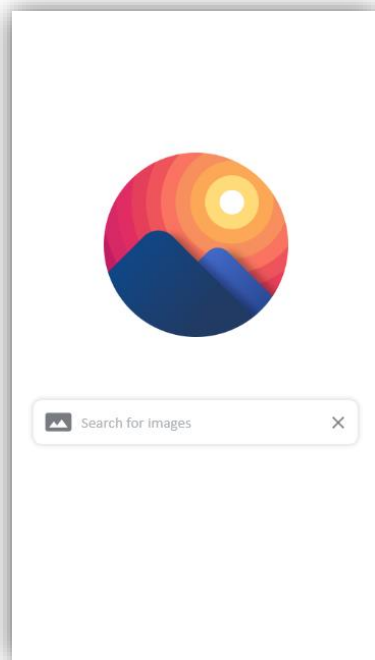
This application runs in Android phones and tablets

### 1.3.2 USER INTERFACES

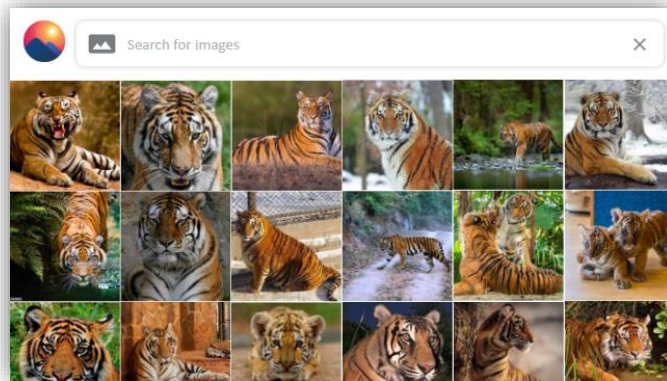
#### Splash Activity



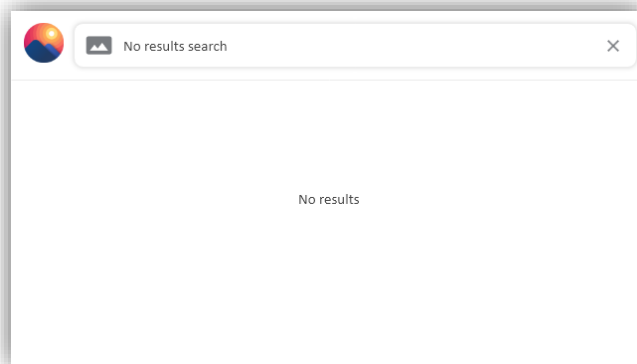
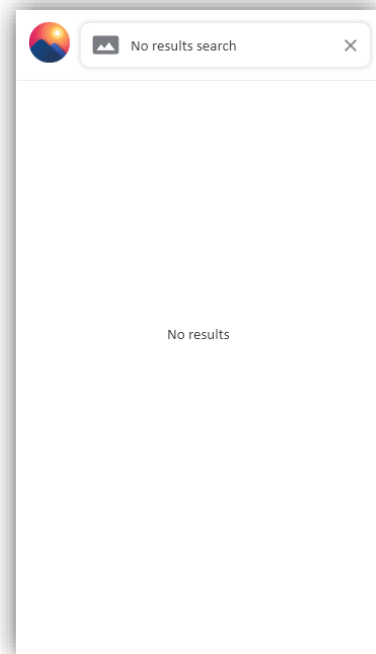
#### Search Activity



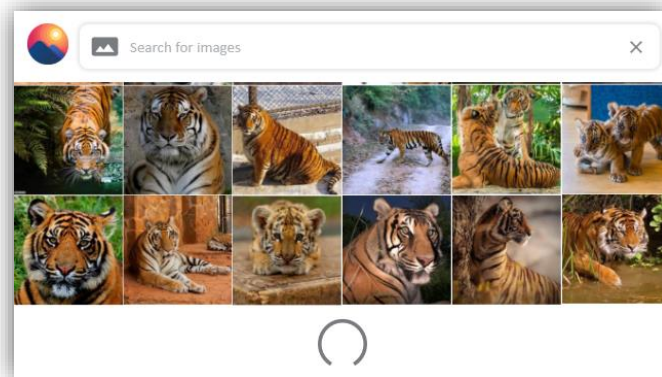
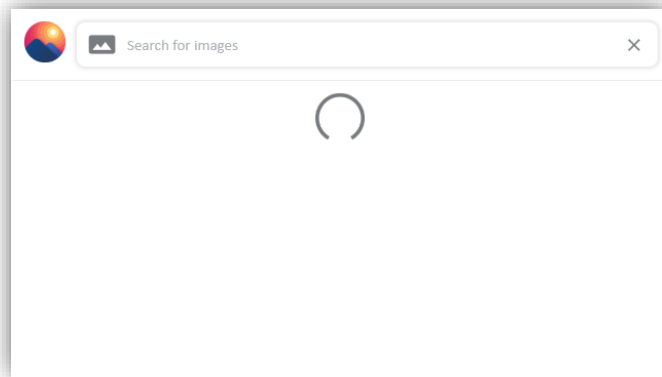
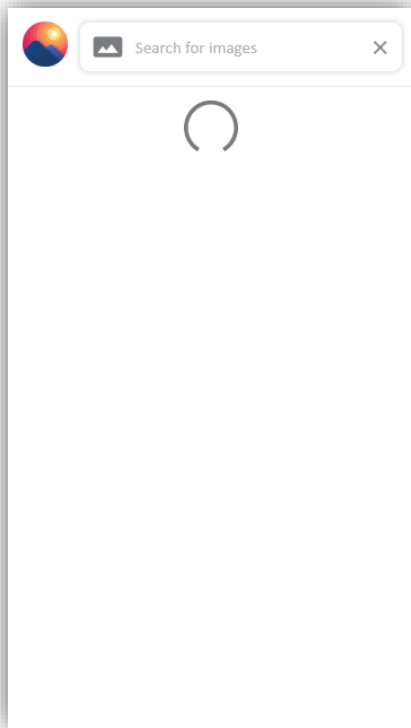
## Image Search Activity



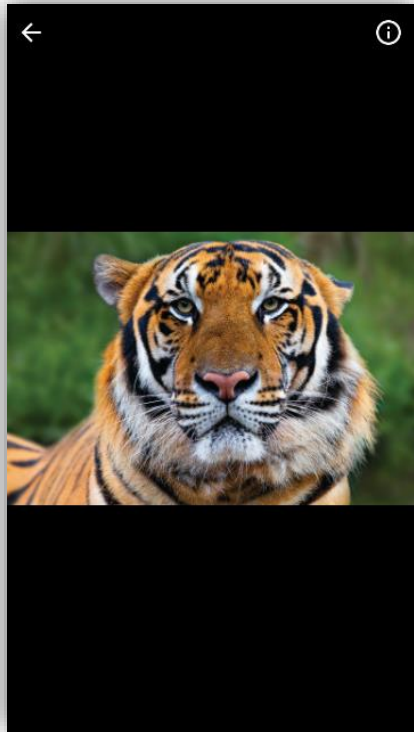
## Image Search Activity – No Result



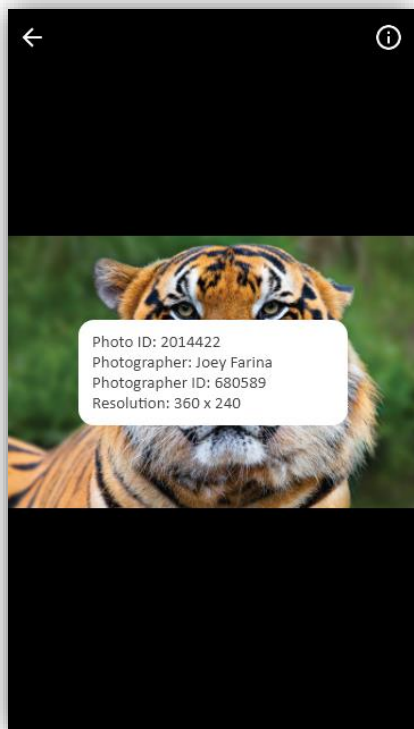
## Image Search Activity – Loading



## View Image Activity

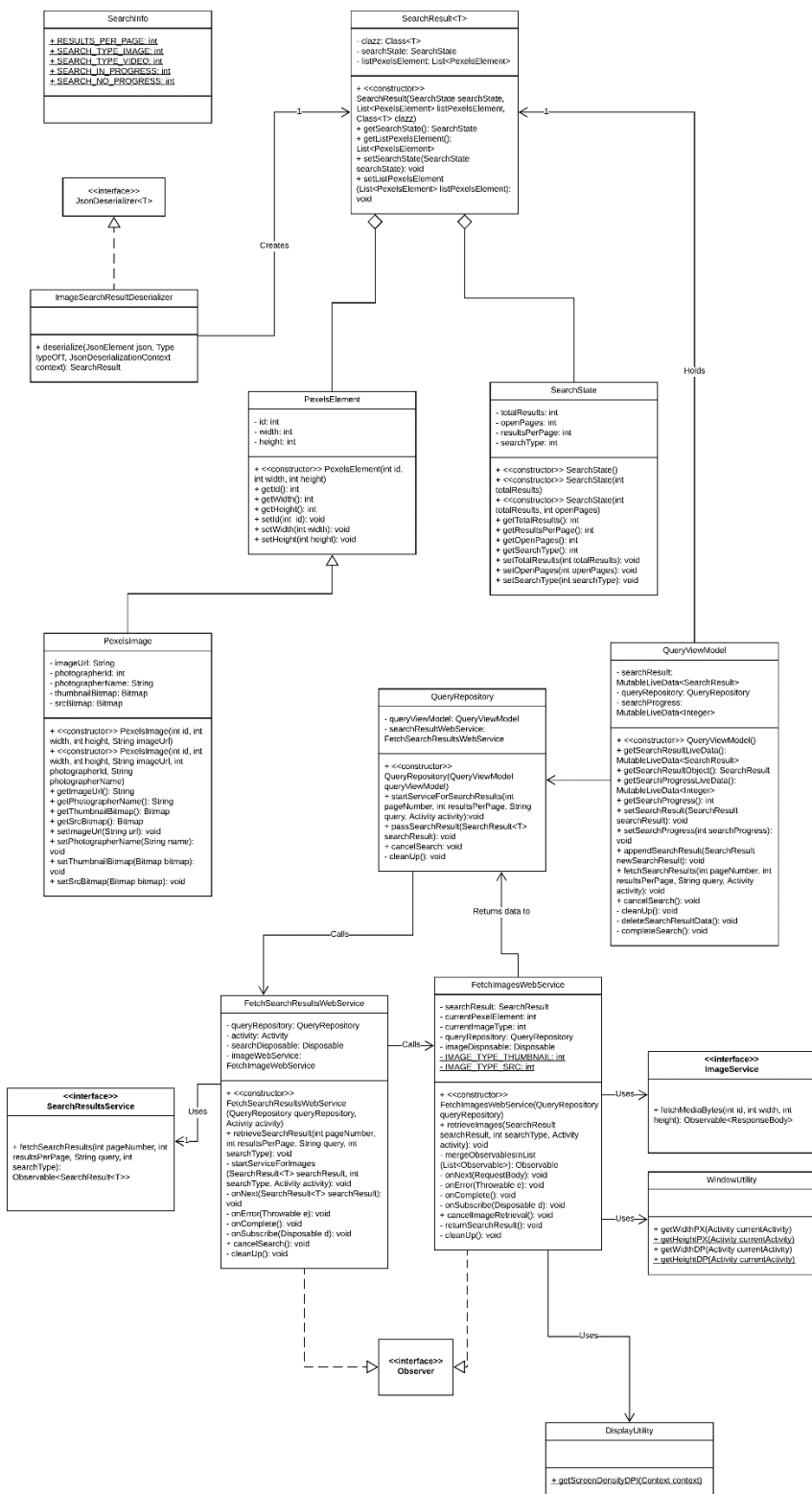


## View Image Activity – Image Info



### 1.3.3 INTERNAL ARCHITECTURE

#### UML Class Diagram

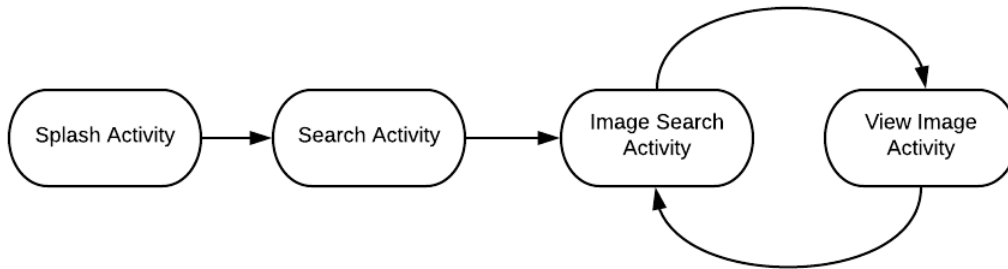




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#### 1.3.4 APPLICATION TRANSITIONS

##### Application Transition Flowchart



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#### 1.3.4 EXTERNAL SERVICES

This application uses the Pexels API to fetch media data from Pexels, a stock photo and video library website

## 2.0 REQUIREMENTS

### 2.1 SEARCH QUERIES

S01 – The application shall allow the user to type text to search

S02 – The application shall perform search functionality as the user types; each type event shall cancel a currently running search operation, if one exists, and perform a new search operation

S03 – The application shall allow the user to click a button to delete all text input

### 2.2 IMAGE RESULTS GRID

R01 – The application shall display a grid of images to the user, based on their search query

R02 – The application shall fetch and load 30 images at a time

R03 – The application shall fetch and load the next 30 images upon the user scrolling to the last row of loaded images

R04 – The application shall display an indefinite progress bar during the process of loading images, before the images are displayed

R05 – The application shall display 3 images per row in portrait mode, 6 images per row in landscape mode

R06 – The application shall display each image on a 1:1 aspect ratio

R07 – The application shall inform the user if there are no results

R08 – The application shall fetch each image as the same resolution as the resolution it will be displayed in, in pixels, which will depend on the device screen size and resolution

*XXX – The application shall cache the loaded images of the previous “page” of images*

## 2.3 USER INTERFACE

U01 – The application shall support both portrait and landscape mode

U02 – The application shall support different screen sizes

U03 – The application shall support different screen pixel densities

## 2.4 MEDIA DISPLAY

M01 – The application shall display the chosen image on a new screen

M02 – The application shall allow the user to click a button to show more information about the image

M03 – The application shall display the full image in its original aspect ratio

M04 – The application shall allow the user to press a back button, which takes them back to the previous screen (the search results screen)

M05 – The application shall fetch the image with its width and height twice as the width and height it is displayed in, in pixels, to allow a clearer image while zooming in

## 2.5 SYSTEM

X01 – The application shall notify the user of network errors

X02 – The application shall notify the user of all errors

## 3.0 GLOSSARY

- GUI – Graphical User Interface: a system of graphical and interactive components in a software
- Pexels – a photo and video library website