

SOFTWARE REQUIREMENTS SPECIFICATION FOR SNAP

Version 0.5

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TABLE OF CONTENTS

1.0 Introduction.....	3
1.1 Purpose	3
1.2 Scope	3
1.3 Product Perspective	3
1.3.1 System Interfaces.....	3
1.3.2 User Interfaces	4
1.3.3 Internal Architecture	8
1.3.4 External Services	9
2.0 Requirements	9
2.1 Search Queries.....	9
2.2 Image Results Grid	9
2.3 User Interface	10
2.4 Media display	10
2.5 System	10
3.0 Glossary	10

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

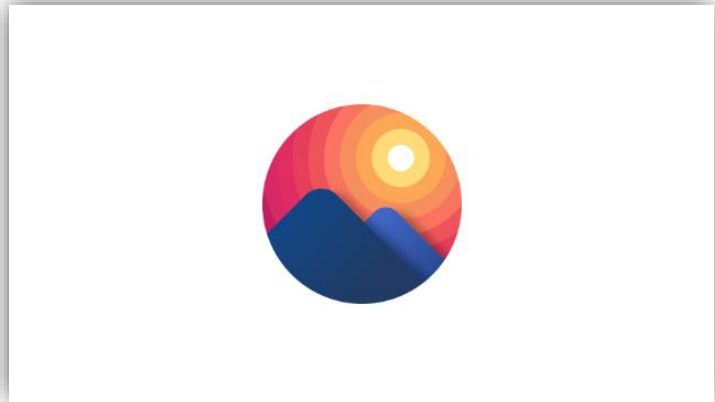
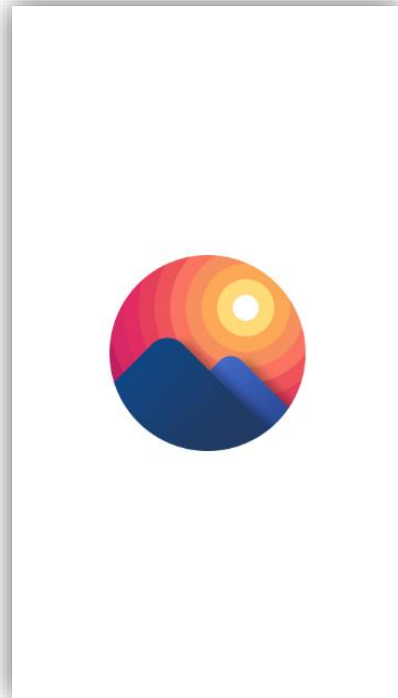
1.3 PRODUCT PERSPECTIVE

1.3.1 SYSTEM INTERFACES

This application runs in Android phones and tablets

1.3.2 USER INTERFACES

Splash Activity



Search Activity

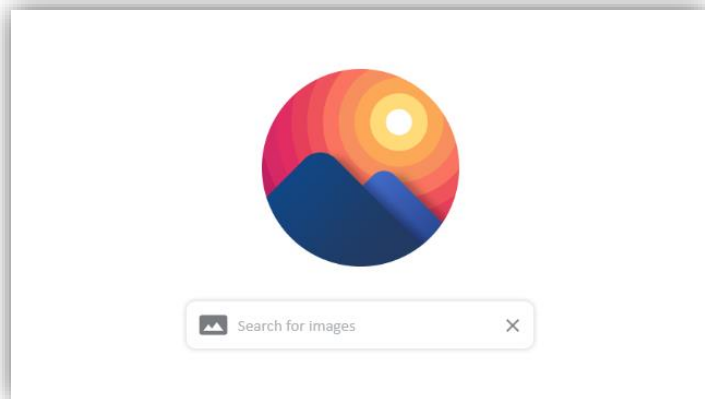
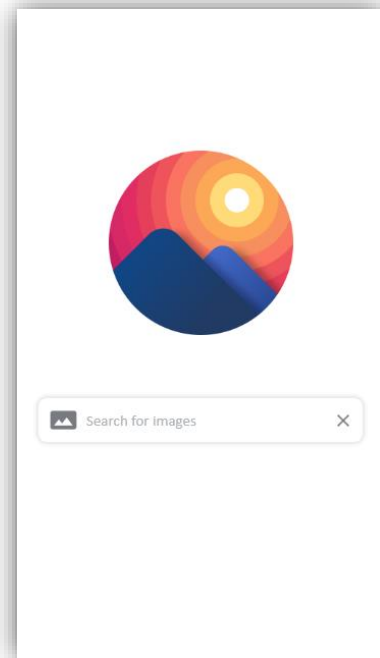


Image Search Activity

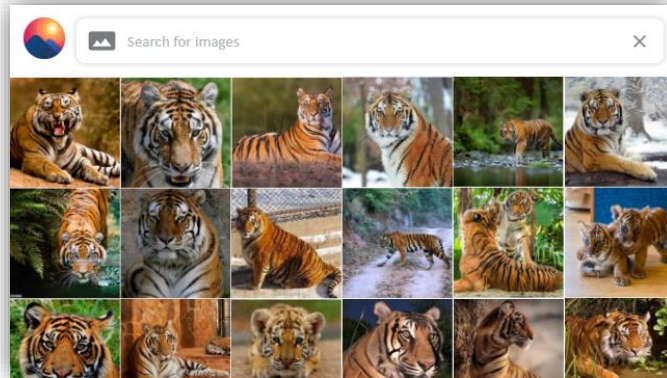


Image Search Activity – No Result

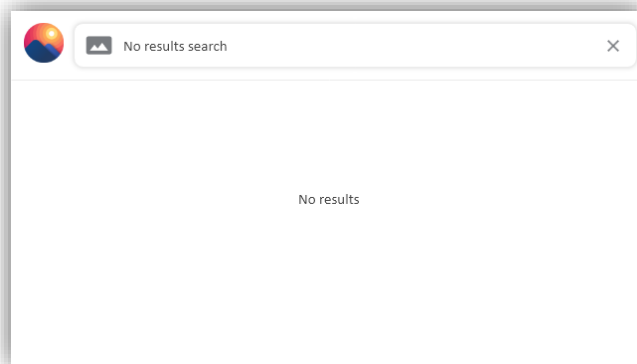
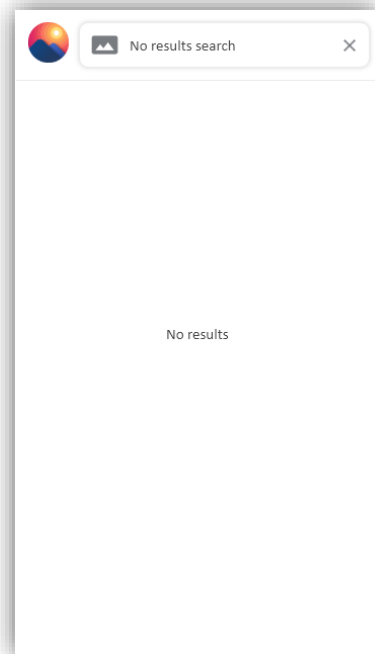
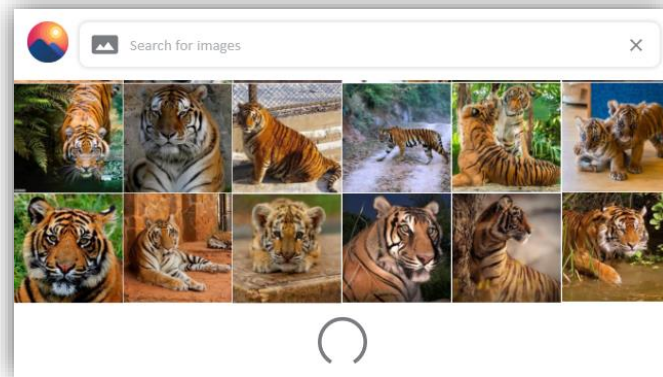
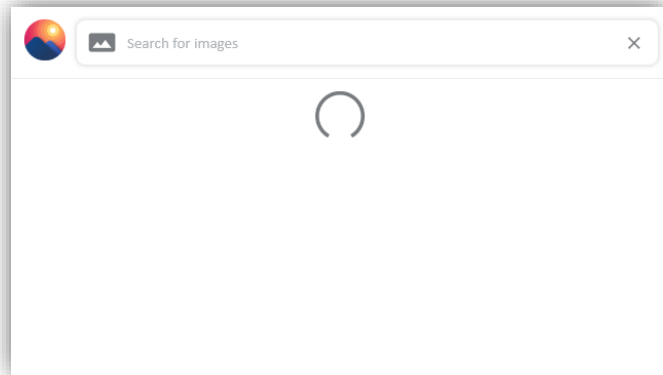
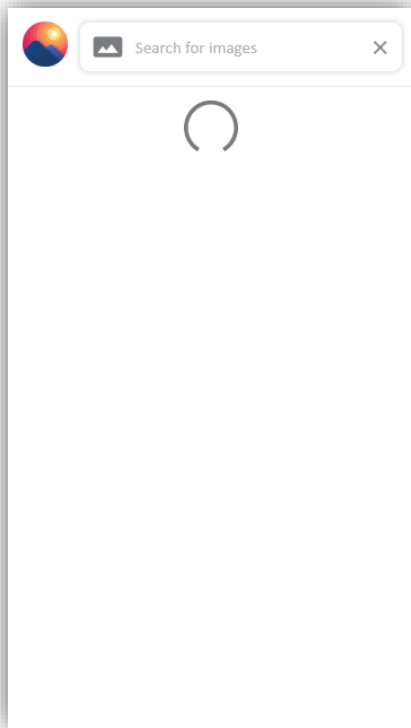
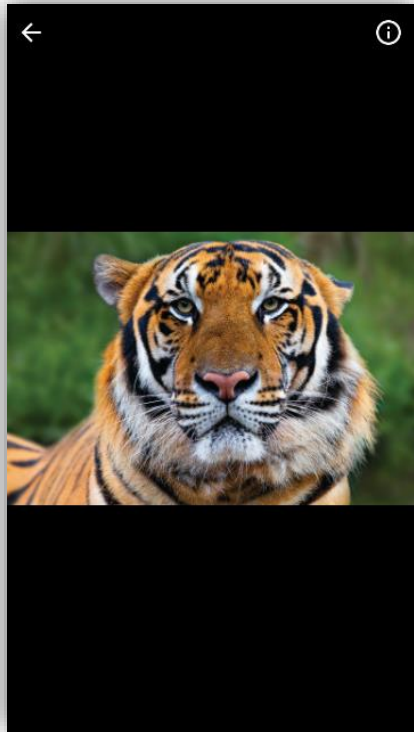


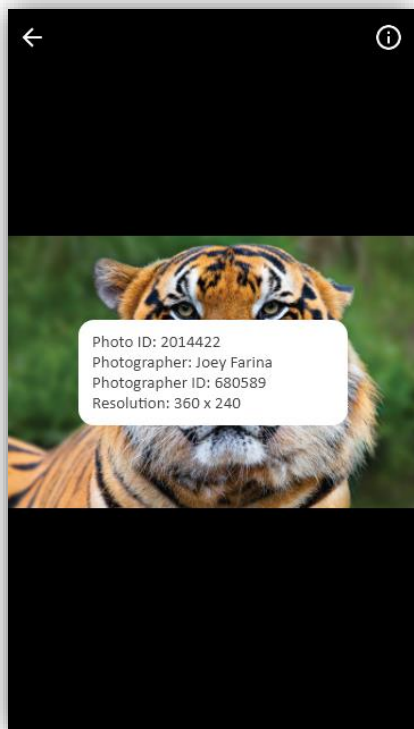
Image Search Activity – Loading



View Image Activity

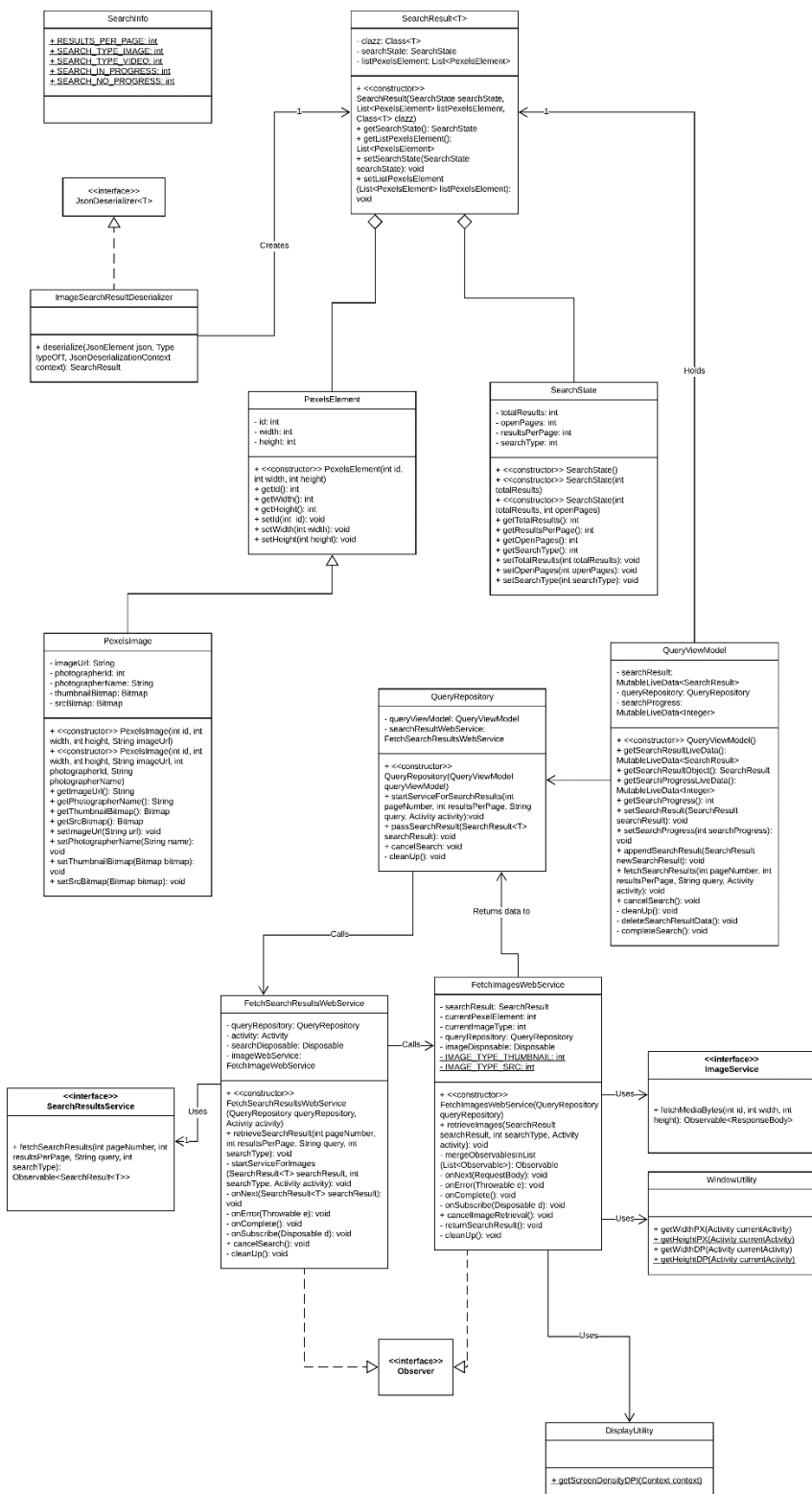


View Image Activity – Image Info



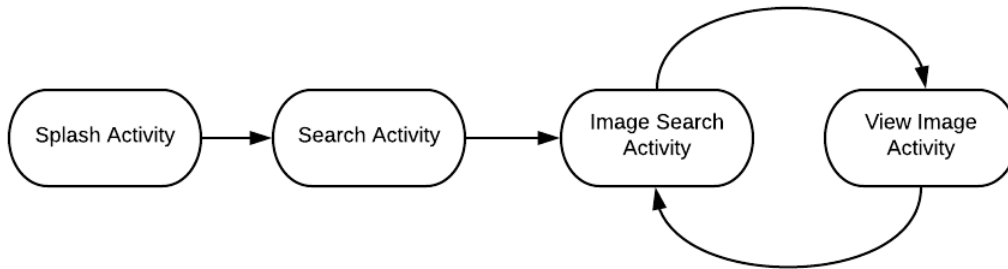
1.3.3 INTERNAL ARCHITECTURE

UML Class Diagram



1.3.4 APPLICATION TRANSITIONS

Application Transition Flowchart



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 users to pinch to zoom in and out

M03 – The application shall allow users to drag the image around while zoomed in

M04 – The application shall allow the user to click a button to show more information about the image

M05 – The application shall display the full image in its original aspect ratio

M06 – The application shall allow the user to press a back button, which takes them back to the previous screen (the search results screen)

M07 – 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