**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

### 1.3.1 System Interfaces

This application runs in Android phones and tablets

### 1.3.2 User Interfaces

**Splash Activity**

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**Search Activity**

**A close up of a logo

Description automatically generated**

A screenshot of a cell phone

Description automatically generated

**Image Search Activity**

**A picture containing photo, different, text, showing

Description automatically generated**

**A picture containing photo, different, showing, show

Description automatically generated**

**A screenshot of a cell phone

Description automatically generatedImage Search Activity – No Result**

**A screenshot of a cell phone

Description automatically generated**

**A screenshot of a cell phone

Description automatically generatedA screenshot of a cell phone

Description automatically generatedImage Search Activity – Loading**

**A double photo of a cat

Description automatically generated**

**A picture containing photo, different, showing, cat

Description automatically generated**

**View Image Activity**

A close up of an animal

Description automatically generated

A close up of an animal

Description automatically generated

A screen shot of an animal

Description automatically generated**View Image Activity – Image Info**

A close up of an animal

Description automatically generated

### 1.3.3 Internal Architecture

**UML Class Diagram**

**A close up of text on a white background

Description automatically generated**

### 1.3.4 Application Transitions

**Application Transition Flowchart**

**A close up of a device

Description automatically generated**

### 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