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# LyricFinder

## Description

Having a trouble time understanding what that pop artist is saying in his new hit single? No worries, LyricFinder lets you find the lyrics of all your favorite songs with a simple search!

## Intended User

LyricFinder is intended for all music listeners whether it's for searching song lyrics or discovering hot songs in the area.

## Features

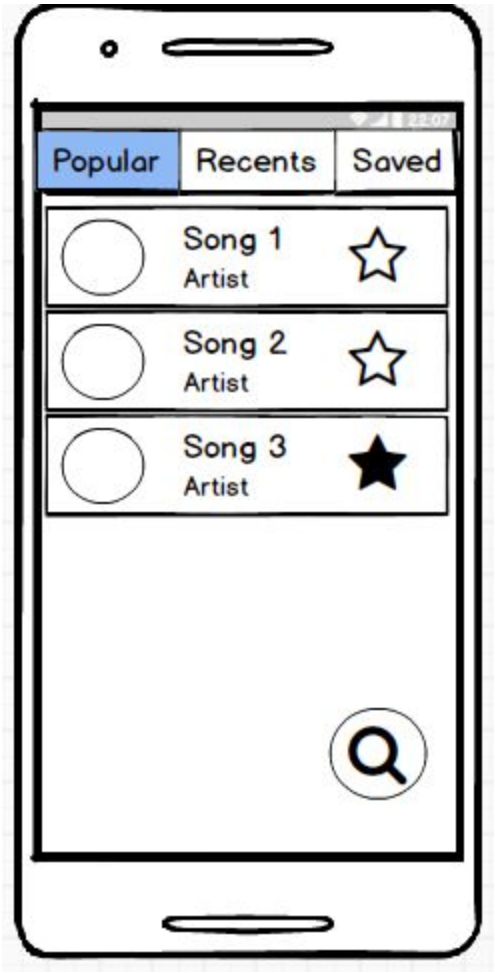
List the main features of your app. For example:

- Search for lyrics
- Lists recent searches, popular tracks in your geographical area
- Save lyrics to starred songs

# User Interface Mocks

(Created Using Balsamiq Mockups 3)

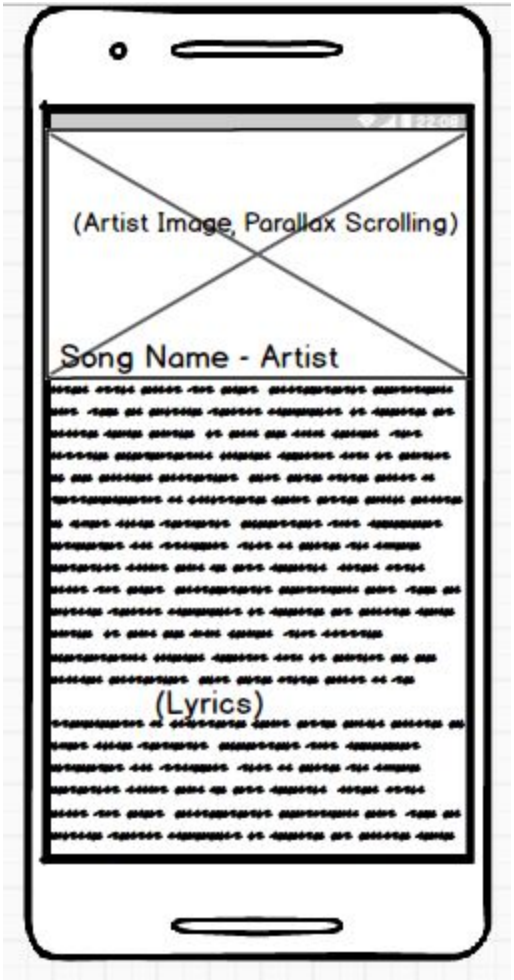
## Screen 1




Main Activity UI:

- Contains a tabbed layout with three tabs: Popular, Recents, and Saved
- Each tab will have the relevant Song items
- A Floating action button at the bottom which allows to search for music

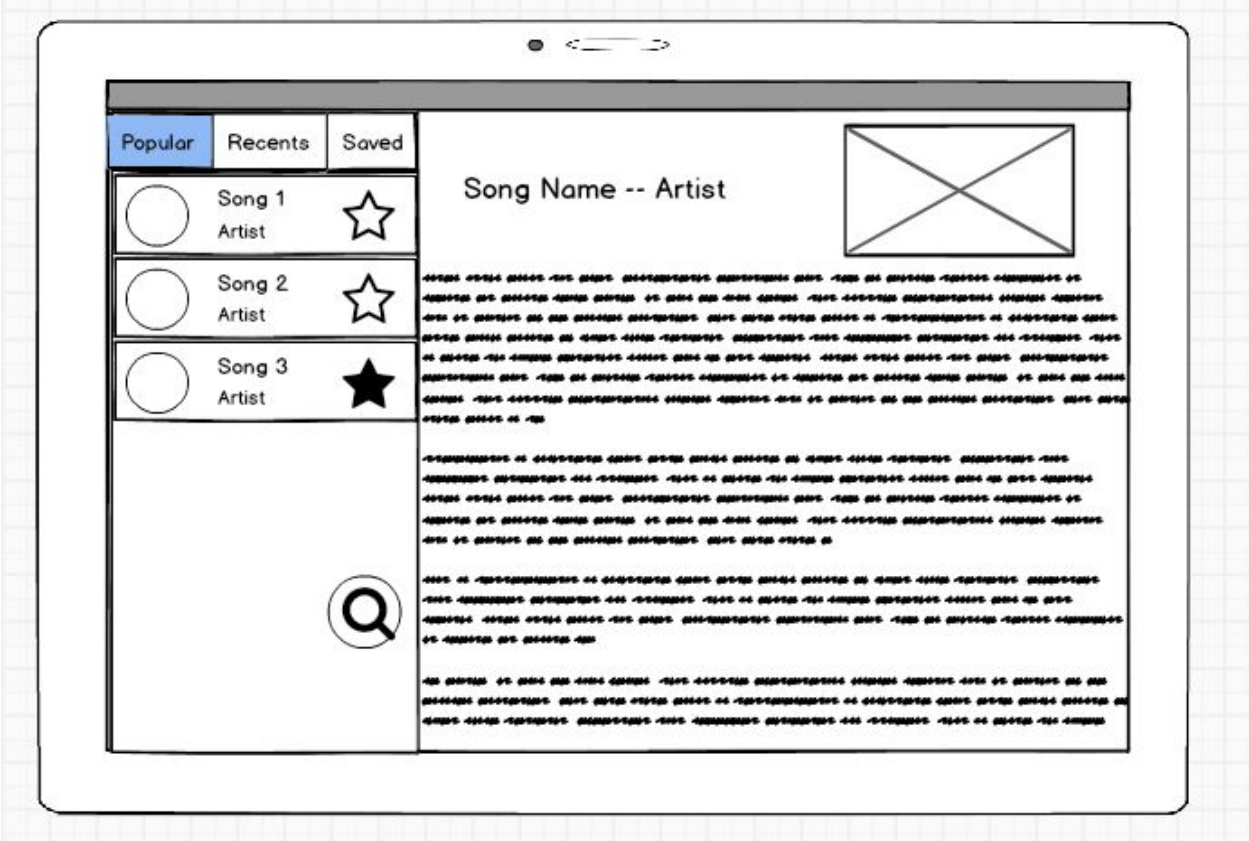
## Screen 2




Lyrics Activity:

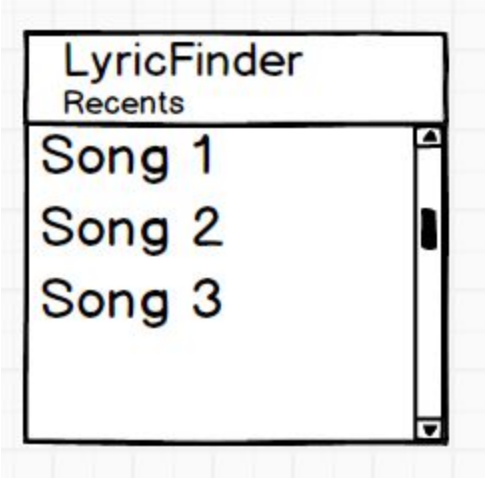
- Action Bar has an image of the artist and Parallax Scrolling feature
- Lyrics Scrolling Display below

## Screen 3- Tablet




The tablet layout is a combination of the previous two mobile layouts, with the tabbed display on the left, with the selected lyrics display on the right.

## Screen 4 - Widget



This widget will list all of the recent searches. On click it will open up the lyric activity for the selected song.

# Key Considerations

### How will your app handle data persistence?

Content Provider will be built.

### Describe any corner cases in the UX.

Corner cases:

- Blank screen while loading lyrics, loading bar should be displayed
- Location may not be enabled. Check for location enabled, if not enabled then a dialogue box should be used to allow user to enable location

### Describe any libraries you'll be using and share your reasoning for including them.

- Picasso to handle the loading and caching of images of artists or albums
- MusixMatch api is to be used to find the lyrics of the desired song, an open source java library was built for this api. https://github.com/sachin-handiekar/jMusixMatch . Using maven it can be packaged into a jar file and used as a module in android.
- OkHttp will be used to access the REST endpoints of the lastfm api to discover songs, and popular artists/songs in a location. It will also be used to access the REST endpoint of geonames api to attain the country from latitude and longitude.

### Describe how you will implement Google Play Services.

2 Google Play Services will be used in this application

1. Location: Locations will be used to recommend tracks which are popular in the user's geographic region
2. AdMob: Display an ad banner within the app

# Next Steps: Required Tasks

## Task 1: Project Setup

- Configure libraries
    - Using maven jMusixMatch needs to be packaged into a jar file and imported into the project
    - OkHttp
- Create a Static details class which will have all the API endpoints needed for this project

If it helps, imagine you are describing these tasks to a friend who wants to follow along and build this app with you.

## Task 2: Implement UI for Each Activity and Fragment

List the subtasks. For example:

- Build UI for MainActivity (Popular music feed, recent searches, saved)
    - List item needs to be created
- Build UI for LyricsActivity

## Task 3: Google Play Services

Setup Google Play Services

- Location
    - Account for corner cases when Location is disabled
    - Integrate with Geonames api to retrieve the country name using the coordinates
- Admob

## Task 4: API Endpoint Connectivity

Implement the functionality of the app with the use of the api endpoints and jMusixMatch java library. (Using **IntentService**)

- Create appropriate POJO classes for the music details
- Create utility functions for retrieving the data and parsing the json

## Task 5: Persistence

Implement the favorites/saved and Recently Searched feature using a Content Provider.

- Create SQLite database to store the basic music details objects
- Hook up the SQLite database to a Content Provider
- Implement a loader to update the UI

## Task 6: Create Signed APK

Signed .apk file is to be generated

- Create Keystore
- Generate Signed .APK