

Submission Instructions

1. After you've completed all the sections, download this document as a PDF [File → Download as PDF]
 2. Create a new GitHub repo for the capstone. Name it "**Capstone Project**"
 3. Add this document to your repo. Make sure it's named "**Capstone_Stage1.pdf**"
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Podway --

Description

This podcast app is contains over 130.000 Podcasts and 5.000.000 episodes. You can easily find and manage the most popular podcasts. Enjoy learning, comedy, inspiration and stories through Podcast Listening.

EDUCATION podcast - Top educational podcasts like Ted Talks help you get insight in technology, psychology and history.

NEWS podcast - Comprehensive up-to-date news coverage, aggregated from radio sources such as BBC and from media all over the world.

MUSIC podcast – Easy access to free songs offered by famous radio and FM channels. Diversified classical piano episodes or modern guitar music within.

COMEDY podcast - Funny videos and audios like talk Shows, stupid questions and jokes help release your stress.

INTEREST podcast - See your daily horoscope? Catch up with the latest fashion news? Get hottest game information? All ready for you!

RELIGION & SPIRITUALITY podcast - For better sleep, here to indulge in Bible stories, buddhist meditation or Islamic audio before bedtime.

KIDS & FAMILY podcast - Storynory actors read myths, fairy tales for family time. Here are selected bedtime stories and audiobook for kids

- Listen to any Podcast: more than 130.000 Podcasts available
- Pair with your wear device to easily control the playback while doing anything else
- Search by Episode: find the episodes you want to listen to
- Favorite Podcast: save your favorite Podcast and have an easy way of accessing them
- Listen later list: save your favorite episodes for later and sort the list the way you'd like to listen to it
- Material Design: we are determined to design the best Podcast App ever

Intended User

This app is has something for people of all age groups who are looking for learning, entertainment or both.

Features

Main features of app.

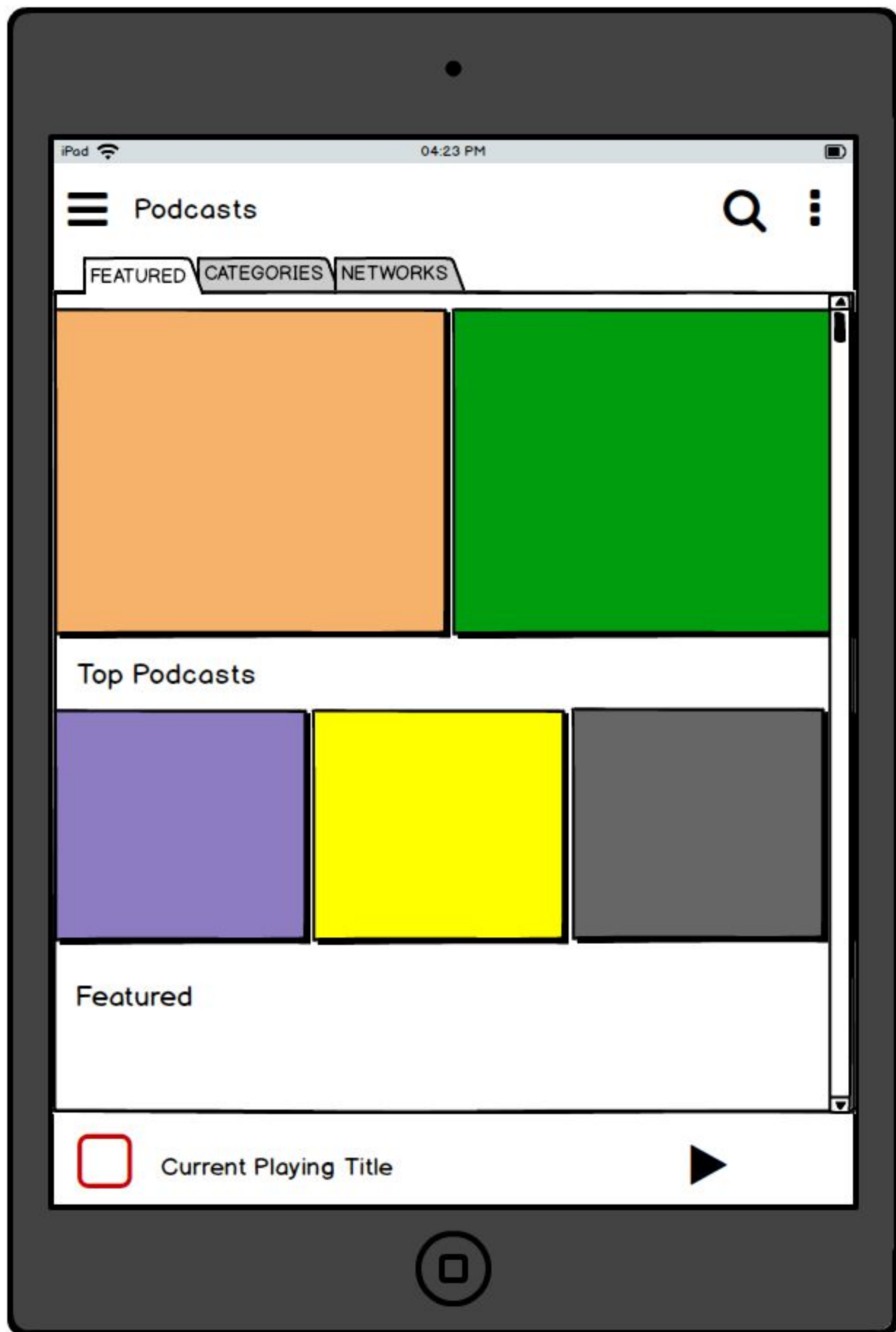
- Streams podcast audio online
- Saves users favorite podcast in database and can play them offline too
- Syncs users favorite episodes for paid users over cloud for access over multiple devices
- Implements search features in podcast and allows users to skip 30sec forward and backwards in podcast
- Sync Adapters to sync the app with latest podcast episodes
- Get Notifications for any new episodes available
- Pair app with wear device to control the playback and listen to it on g

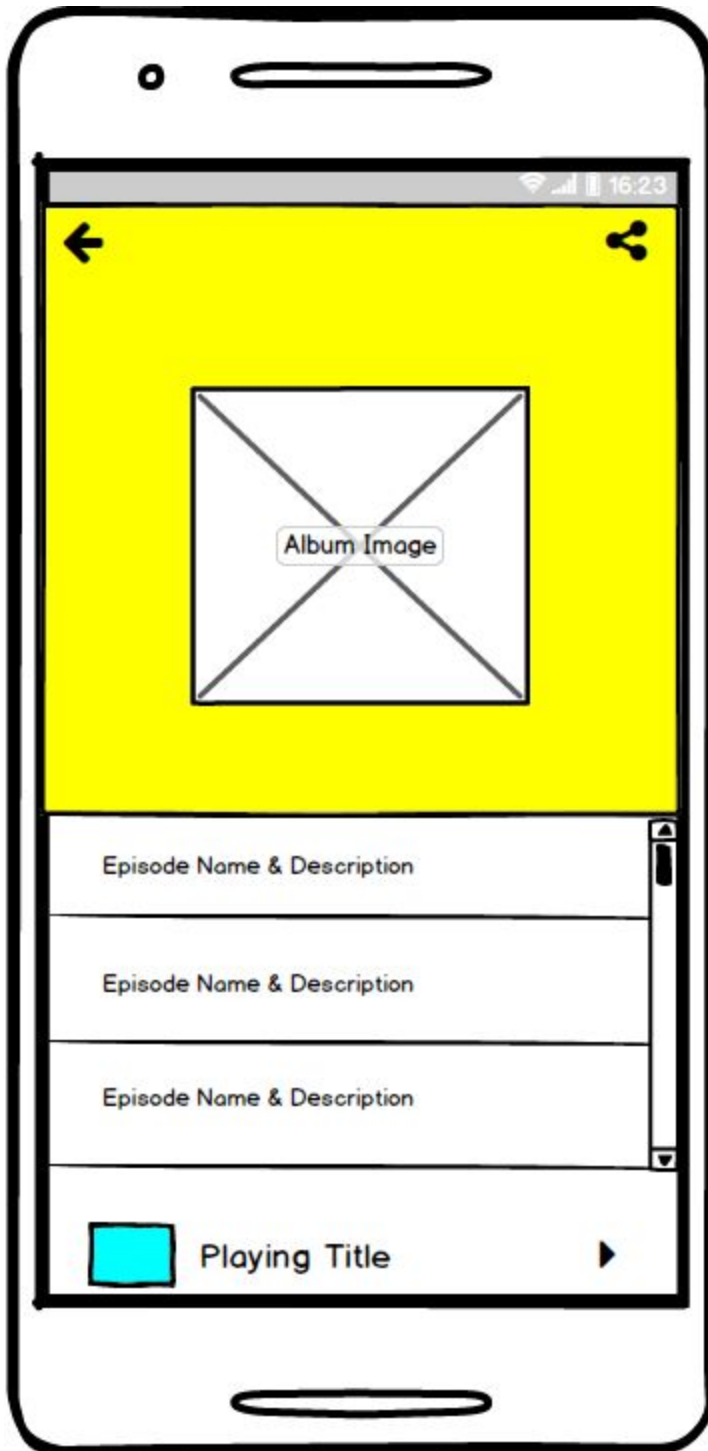




1

¹ The first screen visible to users containing list of podcasts in different categories





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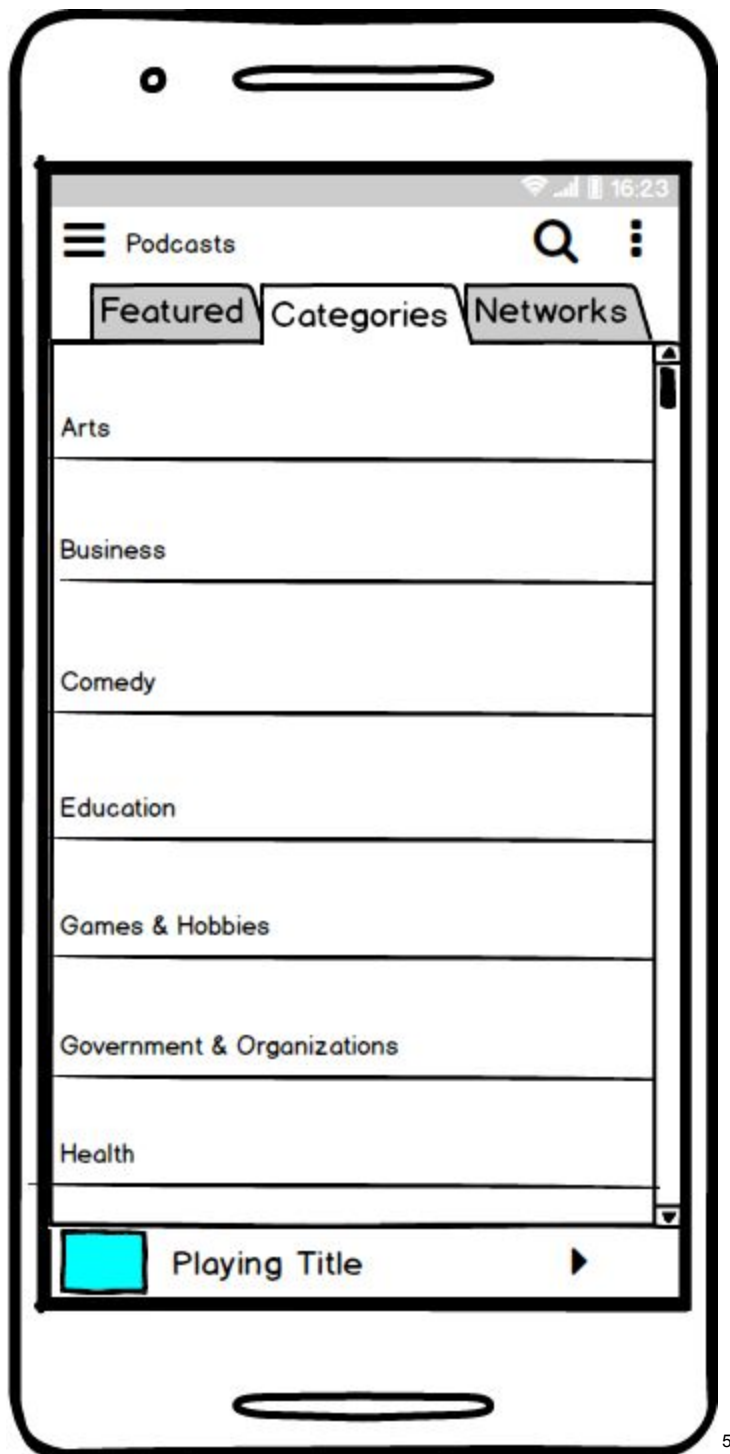
² Equivalent tablet screen

³ Episode detail screen



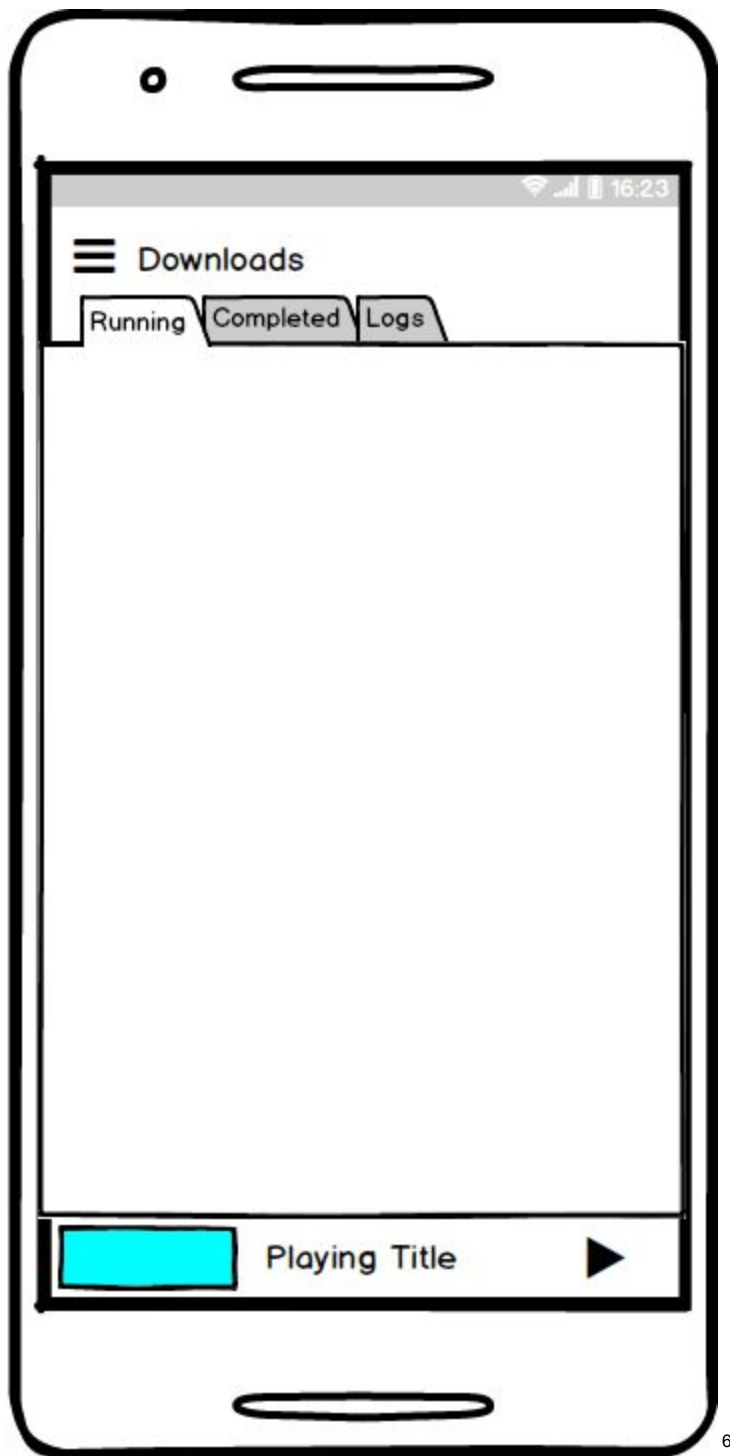
4

⁴ Playback Screen with controls of speed and forward and backward



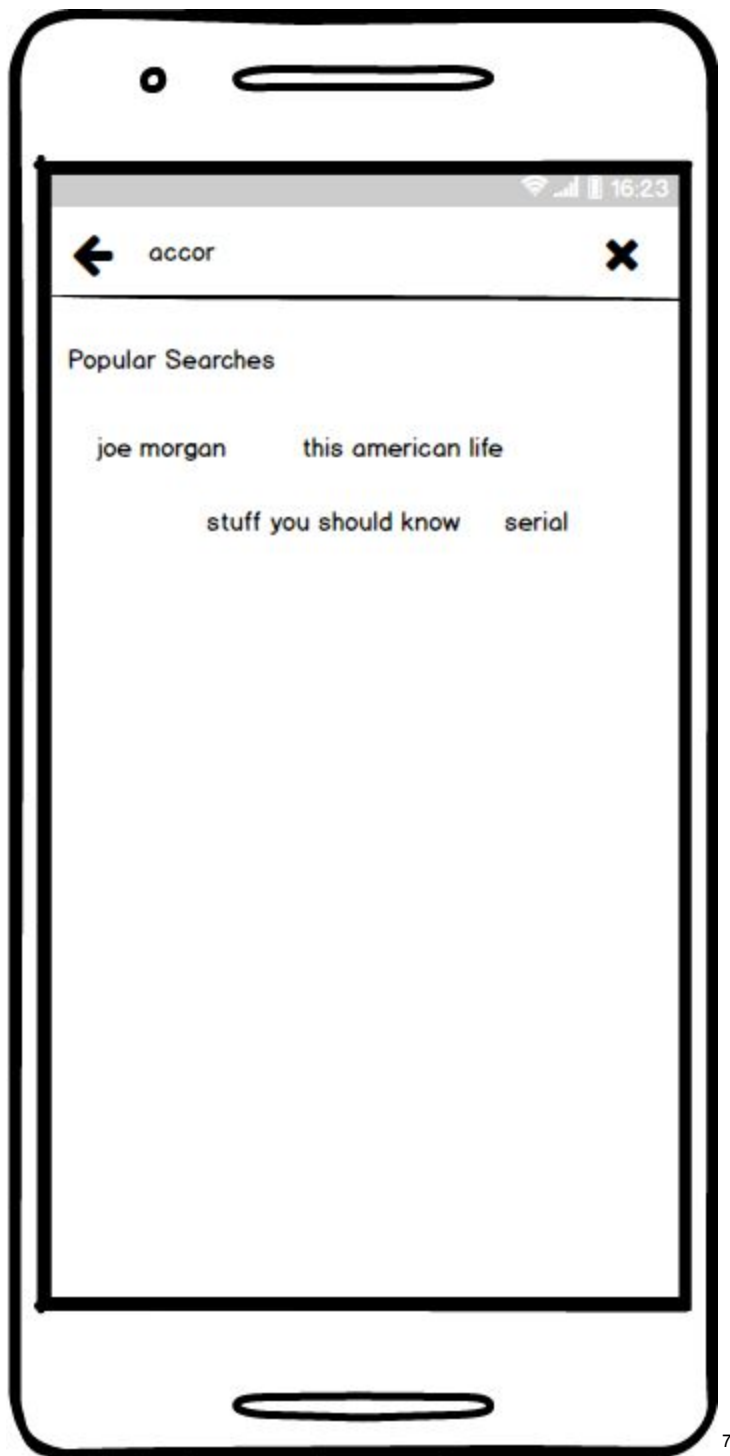
5

⁵ Categories Screen containing list of episodes



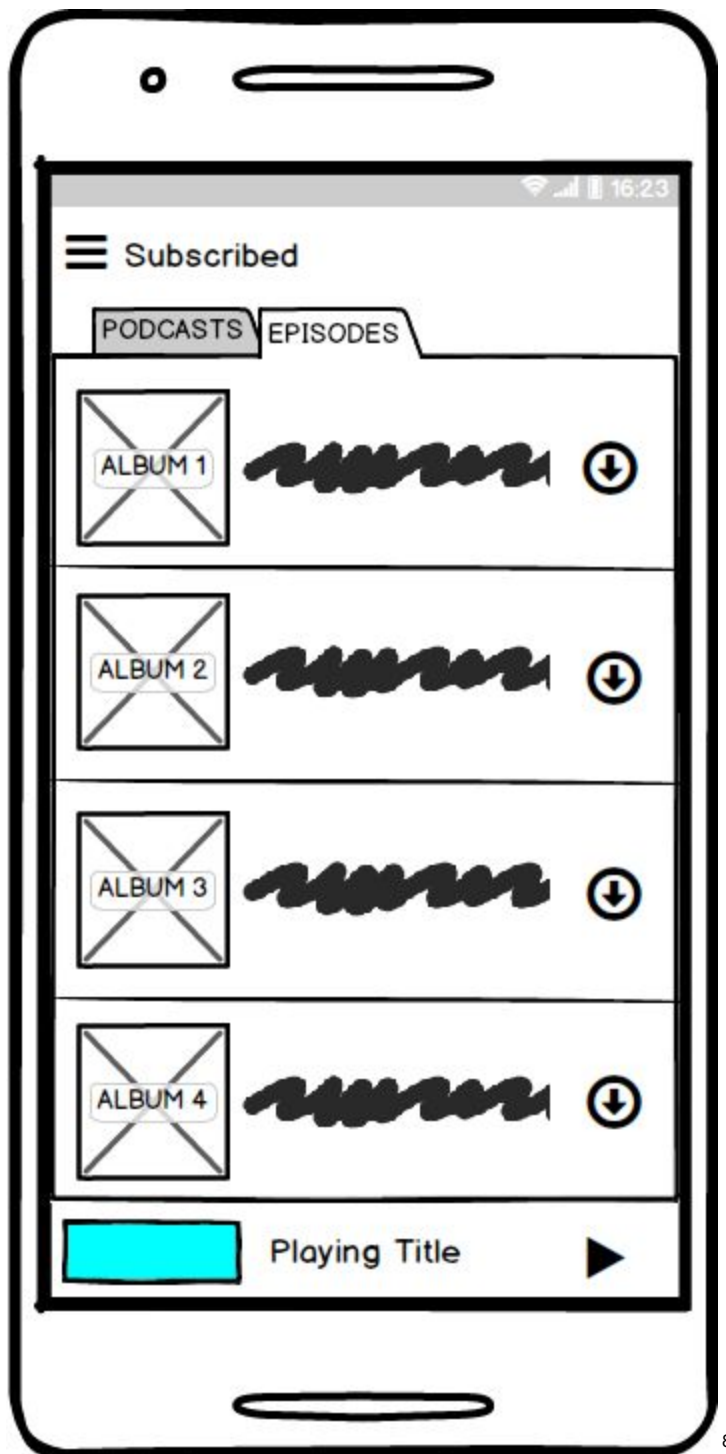
6

⁶ List of Networks broadcasting podcasts, user can click and subscribe to all podcasts released by the network



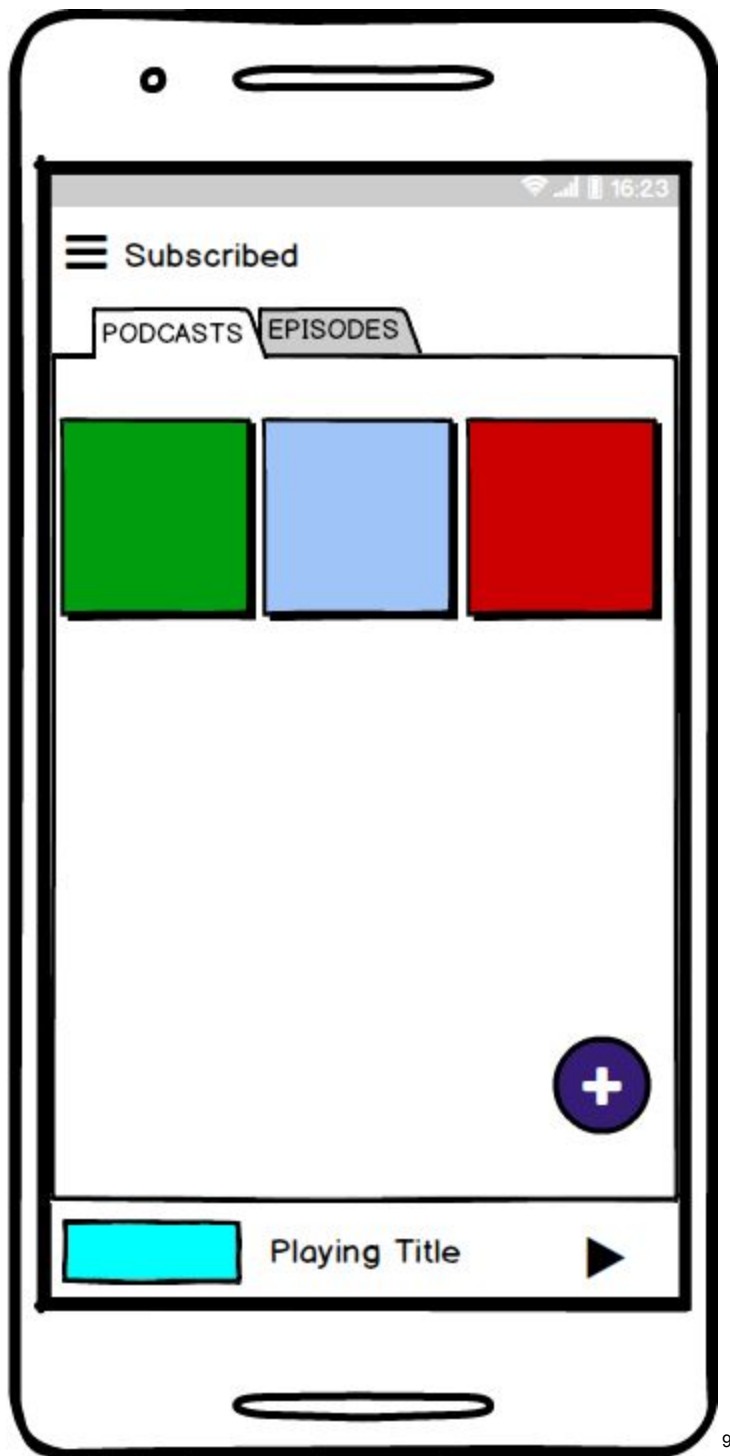
7

⁷ Search Screen - Users can use this screen to search a podcast by its name or any other details



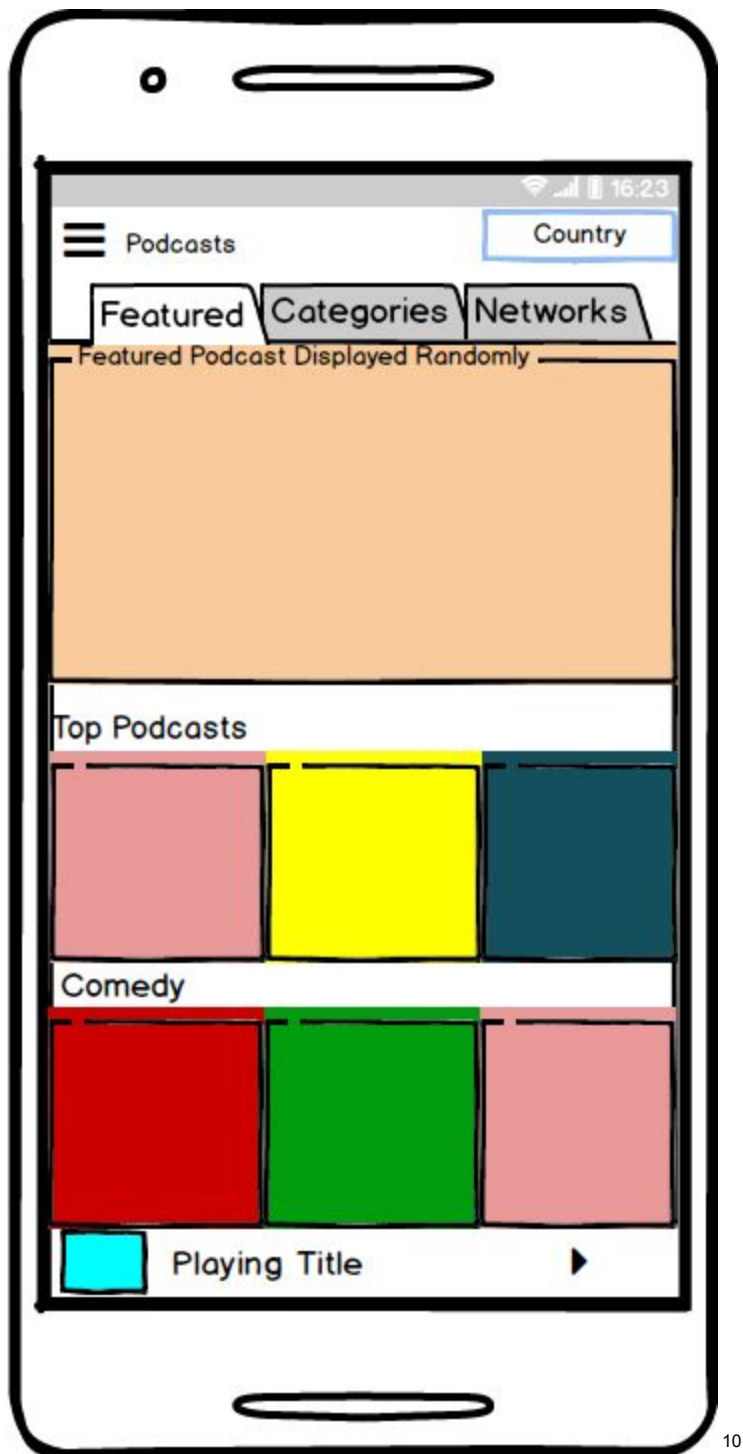
8

⁸ List of subscribed episodes, it also contains a link to download the episode and listen offline/later



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⁹ List of subscribed podcast networks



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¹⁰ Select/Change country to get podcasts relevant to a given location

Key Considerations

How will your app handle data persistence?

I will build my own content provider and also use shared preferences to save data. Also planning to connect to google cloud to sync data over cloud for paid users.

Describe any corner cases in the UX.

On pressing the back button the activity minimizes to bottom of screen where user gets play/pause controls of playback, on touching this it maximizes again. Also user can control it through notifications which gives user freedom to use other apps while listening to podcast from this app.

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

Exoplayer for online streaming
Stetho to test content providers
Espresso and JUnit test suite
Picasso for loading and caching album images
ITunes library for podcast fetch
Firebase for cloud data sync (Optional based on time constraints - will be provided to paid users)

Describe how you will implement Google Play Services.

Location - To detect user's geographic location and supply relevant podcasts.
Wear - To enable user to control his playback from his wear device.

Next Steps: Required Tasks

Task 1: Implement a media player library

Implement a separate module for playing podcast media.

- This module handles the entire lifecycle of the media including the streaming
- It just takes the Uri location and plays the media.
- It has public call back methods to play, pause, forward and backward a media
- It is implemented using Android Exoplayer module
- All other implementations and error handling are internal
- Write unit tests to make sure all modules are working fine

Task 2: Implement module to fetch podcast

Implement a separate module responsible for fetching podcast from the online library

- This module takes care of entire error handling and fetching
- It reads the data in JSON form
- It fetches data in different categories based on user location country.

Task 3 : Implement Content Provider Module

Implement a content provider module from scratch to save user's favorite podcasts for offline play

Use Stetho library to test the content provider implementation

Task 4: Implement UI for activities and fragments

- Implement UI for all activities and fragments
- Test this UI with dummy data and using junit tests

Task 5: Implement Google cloud module for data sync - (Optional - will implement based on time constraints)

- Use this feature for paid users
- Use Firebase to build a google cloud backend to save user's favorite across various devices
- Download user's favorite podcast across all the devices where the user is signed on for anytime play

Task 6: Tie it all together

- Import all the independent modules in a single project and create a final projects

- Use Espresso test suite to test all use cases
- Test on all available devices and emulators
- Ensure backwards compatibility
- Add Wear Module and implement a watchface with playback controls

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