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    - Describe any libraries you'll be using and share your reasoning for including them.
    - Describe how you will implement Google Play Services.

Next Steps: Required Tasks
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- Task 2: Initial implementation
- Task 3: Handle Error Cases
- Task 4: Implement Google Play Services
- Task 5: Implement Accessibility

GitHub Username: adienthu

Podcatcher

Description

Podcatcher is an easy to use podcast streaming app. Simply search for your favourite podcast and subscribe to start listening. Never miss any episode with automatic sync.

Intended User

The app is intended for any podcast enthusiast.

Features

- Search for podcasts by title.
- Subscribing to new podcasts.
- Display subscriptions.
- Display new episodes added in the past week.
- Built-in Player for playing the podcasts.
- Background sync for new episodes.
- Widget for displaying the latest episode from a subscribed podcast.

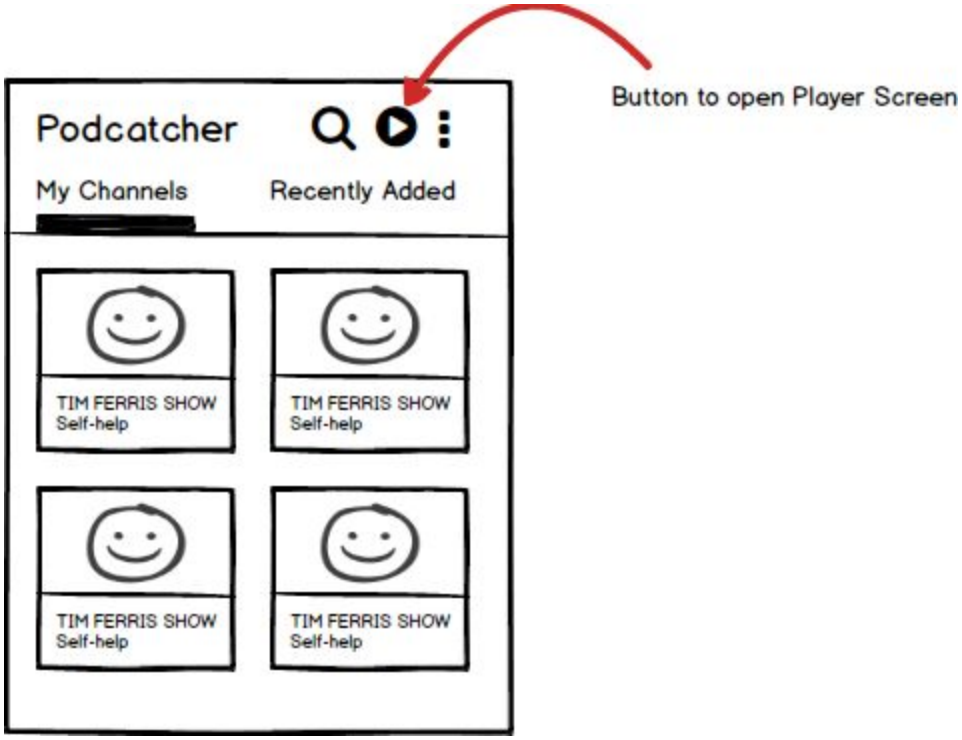
User Interface Mocks

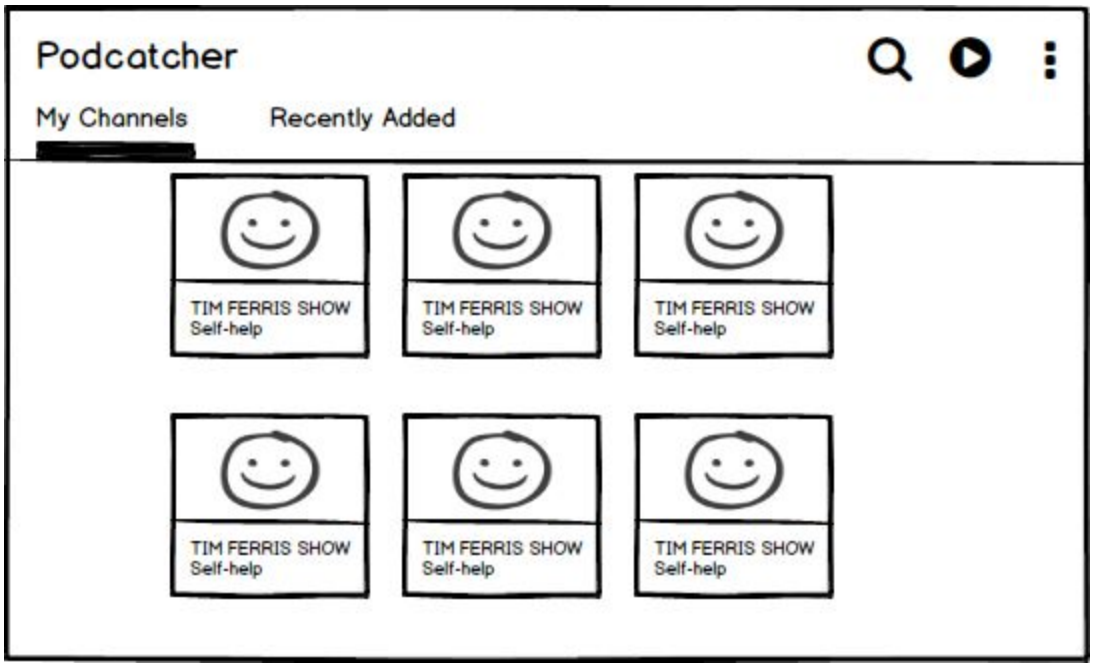
Screen 1 - Home Screen

The home screen is the landing screen for the user. Its toolbar will consist of the app branding on the left and action buttons on the right. The content area will be made up of two tabs: My Channels and Recently Added.

My Channels

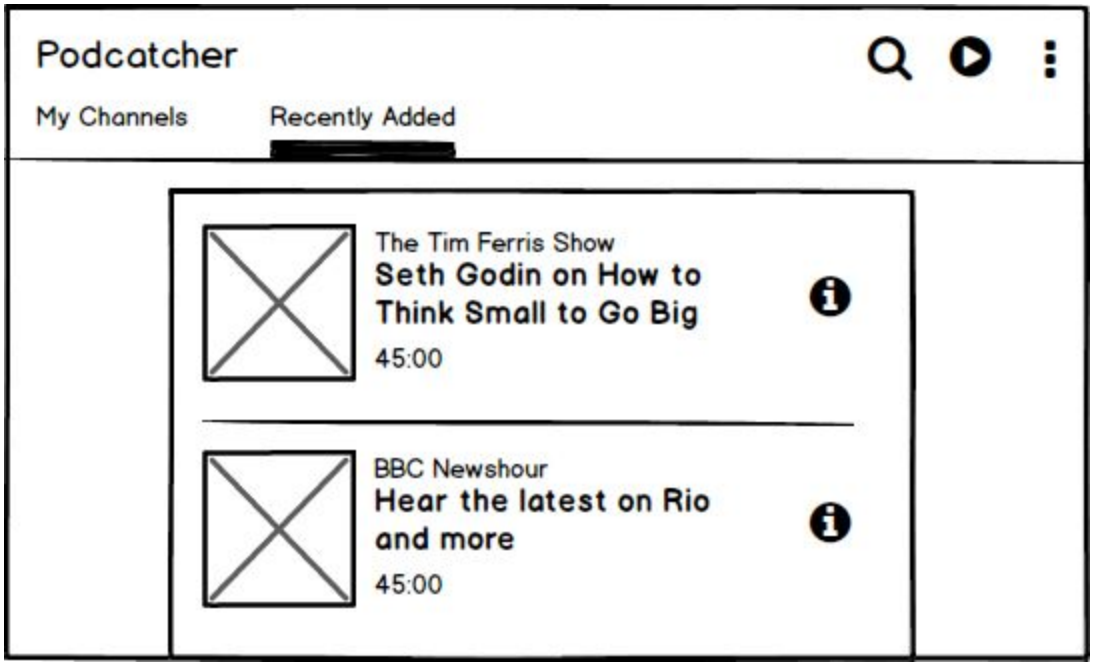
The My Channels tab will show a grid of the currently subscribed channels. The grid will have two columns on phones and three on tablets. Tapping on the grid item takes the user to the Channel Details Screen.





Recently Added

The Recently Added tab will show the episodes from the subscribed channels that were added in the past week. It will show the info as a list on both phones and tablets. The list view on tablets will be contained in a centre-aligned card. Tapping on the list item opens the Now Playing screen with the episode set for playing. Each list item contains a Info secondary button which when tapped shows the Episode Info screen.



Menu

The home screen menu will contain buttons for Search, Now Playing and Settings. Search and Now Playing buttons will always be visible while Settings will be in the overflow menu.

Tapping the Search button shows a Search view. A tap on the Now Playing button shows the Now Playing screen.

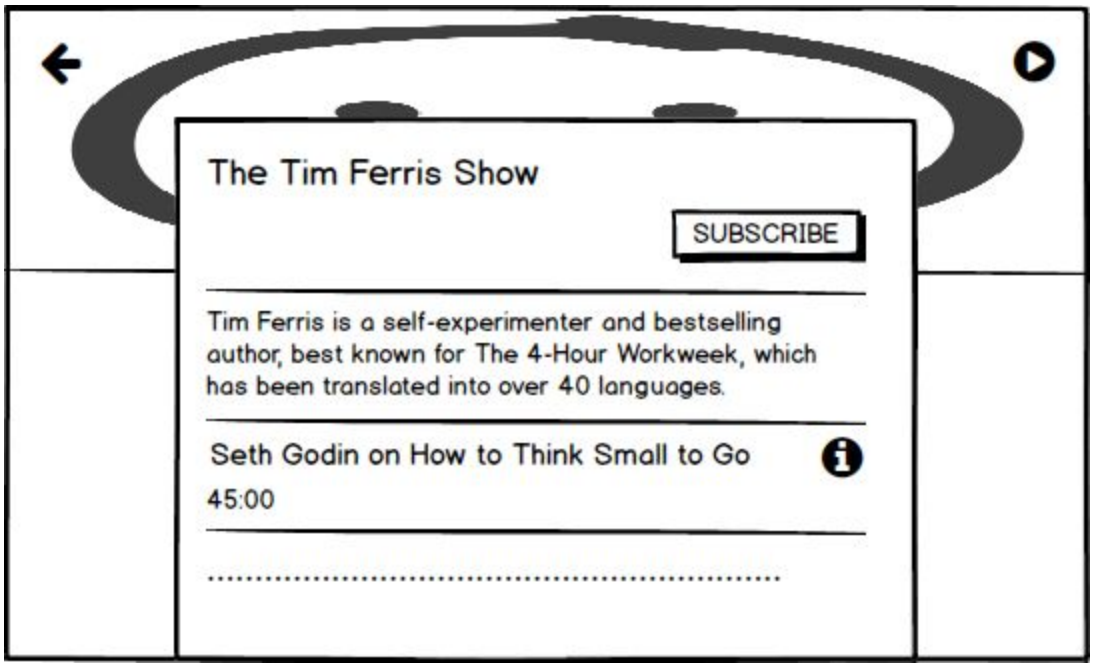
Screen 2 - Channel Details Screen

The Channel Details screen shows the description and list of episodes for a channel. It also contains the button to Subscribe/Unsubscribe.

The layout is similar in both phones and tablets, the only difference being the use of a centre-aligned card layout for tablets. The toolbar contains a Now Playing button on the right.

When the “Subscribe” button is tapped, the channel shows up under the My Channels tab and new episodes are shown under the “Recently Added” tab.

The Tim Ferris Show
SUBSCRIBE
Tim Ferris is a self-experimenter and bestselling author, best known for The 4-Hour Workweek, which....
Seth Godin on How to Think Small to Go Big
45:00

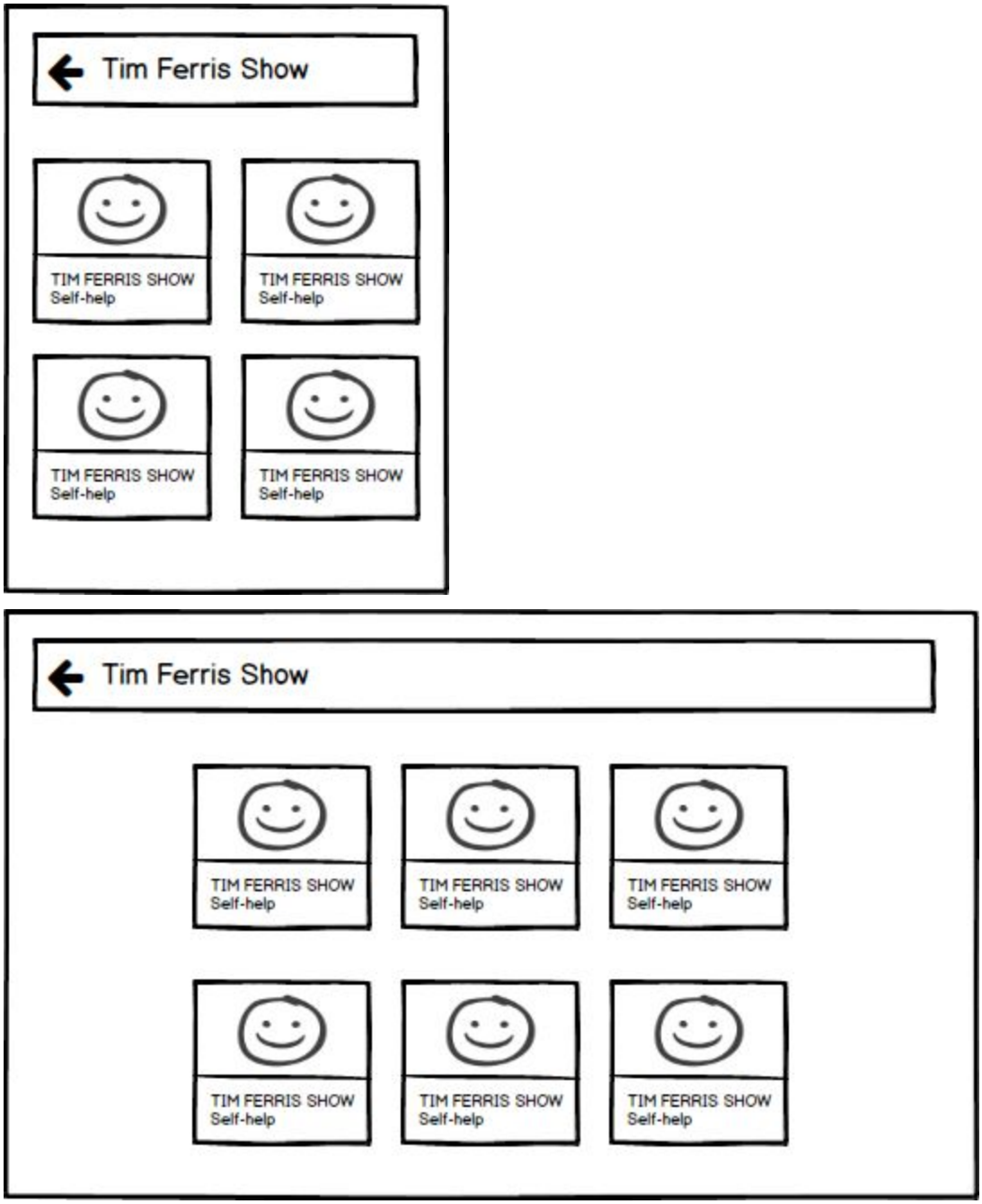

The Tim Ferris Show
SUBSCRIBE
Tim Ferris is a self-experimenter and bestselling author, best known for The 4-Hour Workweek, which has been translated into over 40 languages.
Seth Godin on How to Think Small to Go
45:00

Screen 3 - Episode Info Screen

A simple screen with the toolbar title set to the episode title and the content area showing the episode description.

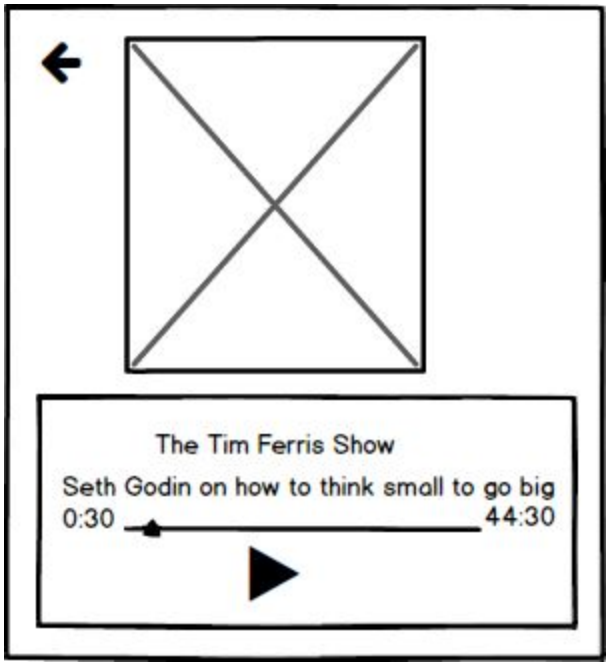
Screen 4 - Search Results Screen

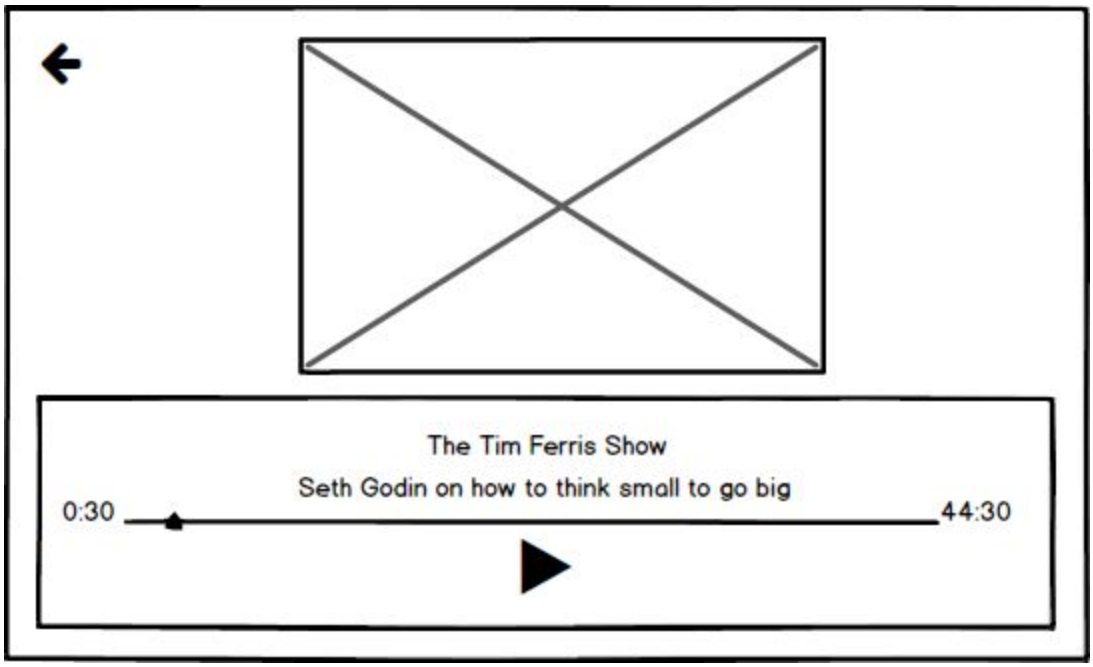
The Search Results screen shows podcast channels matching the search query. The layout and behaviour of the results are same as that of the My Channels tab in home screen.



Screen 5 - Now Playing Screen

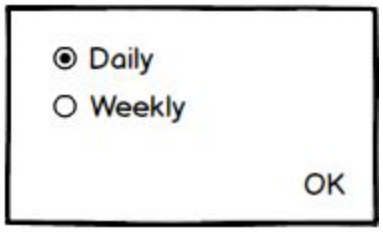
The Now Playing screen allows the user to control the playback of the last selected episode. The layout for phones and tablets is similar with the tablet layout being an expanded version.


The Tim Ferris Show
Seth Godin on how to think small to go big
0:30
44:30


The Tim Ferris Show
Seth Godin on how to think small to go big
0:30
44:30

Screen 6 - Settings Screen

The Settings screen will show a couple of settings. The first one is for controlling how frequently new episodes are checked and the second one is for toggling the notification display.



Use-Cases

Play episode of a subscribed channel

Flow:

1. Tap on a channel under My Channels tab in Home screen.
2. Tap on an episode in Channel Details screen.
3. Tap on the Play button in the Now Playing screen to start playing the podcast.
4. Go back to Channel Details screen.

When the user goes back to the Channel Details screen or the Home screen, a menu option should appear which when tapped should reopen the Now Playing screen.

Unsubscribe a channel

Flow:

1. Tap on a channel under My Channels tab in Home screen.
2. Tap on the Unsubscribe button in Channel Details screen.
3. Go back to Home screen.

When the user goes back to the Home screen, the channel should be no longer be listed under My Channels.

Subscribe a channel

Flow:

1. Tap on the Search button in Home screen.
2. Search for a channel in Search Results screen.
3. Tap on a search result in Search Results screen.
4. Tap on the Subscribe button in Channel Details screen.
5. Go back to the Home screen.

On returning to the Home screen, the channel should be listed under My Channels tab.

Play a recently added episode

Flow:

1. Tap on Recently Added tab in Home screen.
2. Tap on any new episode.
3. Tap on Play button in Now Playing screen.

The new episode should start playing.

Show episode info from Channel Details screen

Flow:

1. Tap on a channel under My Channels tab in Home screen.
2. Tap on the info secondary button of any episode in the Channel Details screen.

The Episode Info screen should open showing the episode description.

Show episode info from Recently Added tab

Flow:

1. Tap on Recently Added tab in Home screen.
2. Tap on info secondary button of any episode.

The Episode Info screen should open showing the episode description.

Show complete channel info

Flow:

1. Tap on a channel under My Channels tab in Home screen.
2. Tap on the Read More button in the Channel Details screen

The complete channel description is shown.

Pause playback

Flow:

1. Open the Now Playing screen.
2. Assuming an episode is being played, tap on the Pause button.

The media playback should be paused.

Seek to position

Flow:

1. Open the Now Playing screen.
2. Assuming an episode is being played, drag the slider forward to a new position.

The media playback should continue from the new position.

Pause playback when device receives a call

Media playback should be paused when the user receives a call. It should resume when the call is over.

Play/Pause from notification

The user should be able to play or pause the episode from the notification pane.

Open Now Playing screen from notification

When the user taps on the player notification, the app is opened showing the Now Playing screen.

Open Recently Added from notification

When the user taps on the notification for new episodes, the app opens showing the Home screen with the Recently Added tab in focus.

Open Now Playing screen from widget

When the user taps on an episode in the widget, the app opens showing the Now Playing screen. The selected episode is set for playback.

Change episode sync frequency

Flow:

1. Tap on the overflow menu in the Home screen.
2. Tap on the Settings list item.
3. Tap on the “Check for New Episodes” setting.
4. Select Weekly and tap OK.

Episodes should be synced once in a week instead of daily.

Disable notifications

Flow:

1. Tap on the overflow menu in the Home screen.
2. Tap on the Settings list item.
3. Tap on the “Notifications Enabled” setting to turn it off.

No new notifications should be shown.

Show placeholder for no current subscriptions

If the My Channels list is empty, show a message suggesting the use of Search to subscribe to new channels.

Show placeholder for no recently added episodes

If the Recently Added list is empty, show an appropriate message.

Show placeholder for no episode in player

If no episode is set for playback, show an appropriate message in Now Playing screen in a placeholder view.

Show placeholder for no search results

If the server returned zero search results, show an appropriate message in Search Results screen in a placeholder view.

Show error placeholder in Search Results screen for no network access

If there are any connection issues when fetching search results, show an appropriate message in Search Results screen in a placeholder view.

Show error placeholder in Channel Details screen for no network access

If there are any connection issues when fetching episodes in Channel Details screen, show an appropriate error message in a placeholder view.

Show error placeholder in Now Playing screen for no network access

If there are any connection issues when fetching episodes in Channel Details screen, show an appropriate error message in a toast.

Key Considerations

How will your app handle data persistence?

App will use a content provider in conjunction with a sqlite database to persist data locally. Only subscribed channels will be persisted. Search results will be stored in an in-memory database. Data pertaining to the current episode being played will be saved using SharedPreferences.

Describe any corner cases in the UX.

One of the corner cases is to reopen the Now Playing screen. For this a menu button will appear in the Home screen and Channel Details screen whenever an episode is being played.

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

1. Picasso to handle the loading and caching of images.
2. Firebase for Admob and analytics

Describe how you will implement Google Play Services.

The app will incorporate Admob and Firebase Analytics. Admob will be used for showing interstitial ads and Firebase Analytics will be used for detecting crashes.

Next Steps: Required Tasks

This is the section where you can take the main features of your app (declared above) and decompose them into tangible technical tasks that you can complete incrementally until you have a finished app.

Task 1: Project Setup

1. Create a new Android project in Android Studio.
2. Add keystore and signing config

Task 2: Initial implementation

Get a basic end-to-end implementation ready.

Subtasks:

1. Implement both phone and tablet UI for happy scenarios using fake data.
2. Implement data layer.
3. Implement network layer.
4. Implement media player.
5. Implement notifications.
6. Implement widget.

Task 3: Handle Error Cases

Implement the error and edge cases as defined in the Use-Cases section.

Task 4: Implement Google Play Services

Subtasks:

1. Show an interstitial ad before showing the Channel Details screen.
2. Incorporate Firebase to detect crashes.

Task 5: Implement Accessibility and Localization

Subtasks:

1. Add content descriptions for image buttons.
2. Add support for navigation using D-pad.
3. Add support for RTL layout switching.