

## AntennaPod-Omega Release Summary 3

### Team members

Name and Student id	GitHub id	Number of story points that member was an <u>author</u> on.
Raphaëlle Giraud, 27514204	<a href="#">Raph1105</a>	<ul style="list-style-type: none"> <li>- <a href="#">Organize the settings page</a>: 5 points</li> <li>- <a href="#">Reorganize the functions and the views</a>: 5 points</li> </ul>
François Crispo-Sauvé, 27454139	<a href="#">FrankSauve</a>	<ul style="list-style-type: none"> <li>- "<a href="#">Recommended for you</a>" checkbox in preferences : 3 points</li> <li>- <a href="#">Suggest podcast based on what was previously listened</a> : 1 point</li> <li>- <a href="#">Automatically share on Twitter</a>: 5 points</li> <li>- <a href="#">Homepage view</a>: 1 point</li> <li>- <a href="#">Static analysis</a></li> </ul>
Sarbeng Frimpong, 29344039	<a href="#">jiggy357</a>	<ul style="list-style-type: none"> <li>- <a href="#">Add podcasts to folders</a>: 3 points</li> <li>- <a href="#">Homepage view</a>: 4 points</li> <li>- <a href="#">Recent podcast on homepage</a>: 3 points</li> <li>- <a href="#">Favorites</a> podcast on homepage: 3 points</li> <li>- <a href="#">Rename folder</a>: 2 points</li> <li>- <a href="#">Delete episode in folder</a>: 5 points</li> </ul>
William Kingbede, 27324383	<a href="#">williamkingbede</a>	<ul style="list-style-type: none"> <li>- <a href="#">Add podcasts to folders</a>: 4 points</li> <li>- <a href="#">Delete folder</a>: 5 points</li> <li>- <a href="#">Folders on homepage</a>: 5 points</li> </ul>
William Leclerc, 27424973	<a href="#">LeCleric</a>	<ul style="list-style-type: none"> <li>- <a href="#">Suggest podcast based on what was previously listened</a>: 4 points</li> </ul>
Constandinos Papadakos, 26665691	<a href="#">Cotso</a>	<ul style="list-style-type: none"> <li>- <a href="#">Rename folder</a>: 3 points</li> <li>- <a href="#">Folders on the side menu</a>: 5 points (Not finished)</li> </ul>

## Project summary

AntennaPod is an easy-to-use, flexible and open-source podcast manager for Android. Some of the features which were added to further AntennaPod's functionality were a trending podcasts page, discovery page, the option to add your podcasts into user-created folders, and many more.

## Velocity and a list of user stories and non-story tasks for each iteration

### Total: 31 stories, 191 points over 13 weeks

#### Iteration 1 (5 stories, 49 points)

- [#2](#): Class Diagram [13 points] [Status: Done]
  - This story involved creating a large class diagram for the project so that we could use it to understand the project, as well as show our additions to the project as we added features.
- [#6](#): CI [5 points] [Status: Done]
  - This story involved implementing a CI and having it provide feedback on Github (checkmarks or exes)
- [#8](#): As a developer, I want to be able to build the project [8 Points] [Status: Done]
  - This was a basic story to demonstrate that we were all able to build the project.
- [#9](#): Test the app [3 points] [Status: Done]
  - This was a story concerned with seeing whether each of us was able to run/test the app.
- [#10](#): Understand the code [20 points] [Status: Done]
  - As the story suggests, this is a story concerning elevating our understanding of the existing project code.

#### Iteration 2 Release 1 (6 stories, 22 points)

- [#24](#): Mark as played [3 points] [Status: Done]
  - We added the ability to use the *Mark as Played* operation on the download page.
- [#26](#): Add to queue [3 points] [Status: Done]
  - We added the ability to use the *Add to Queue* operation on the download page.
- [#27](#): Add to Favorites [5 points] [Status: Done]
  - We added the ability to use the *Add to Favorites* operation on the download page.
- [#28](#): Trending tab in side menu [5 points] [Status: Done]
  - A *Trending* page was added to the side menu (navigation bar) showing all of the trending podcasts on iTunes.
- [#39](#): Mark as unplayed [3 points] [Status: Done]
  - We added the ability to use the *Mark as Unplayed* operation on the

download page.

- [#40](#): Episodes page - Organize [3 points] [Status: Done]
  - Put stories [#24](#), [#26](#), [#27](#), and [#39](#) together.

### [Iteration 3](#) (2 stories, 21 points)

- [#49](#): Advanced search page [13 points] [Status: Done]
  - Add in the ability to search by artist, language, title, and category using the *Trending* and *iTunes Podcast Search* pages.
- [#54](#): Sub-categories on the window [8 points] [Status: Done]
  - Extend story [#49](#)'s functionality by including subcategories in the search.
- [#43](#): Preferences [5 points] [Status: Pushed to Iteration 4]
- [#44](#): Discovery Tab [8 points] [Status: Pushed to Iteration 4]

### [Iteration 4](#), Release 2 (5 stories, 38 points)

- [#43](#): Preferences [5 points] [Status: Done]
  - Added the option for users to specify their preferences when it comes to podcast genres (ex: News, Comedy, Art, Religion, etc)
- [#44](#): Discovery Tab [8 points] [Status: Done]
  - Added a discovery tab in the side menu and an accompanying page which would generate a series of podcasts based on the user's preferences outlined from [#43](#).
- [#45](#): Create Folders [13 points] [Status: Done]
  - Added the ability to add custom folders to store podcasts inside. For example, a bunch of music podcast episodes in a folder marked "Jogging podcasts."
- [#68](#): Autocomplete suggestions [8 points] [Status: Done]
  - Added an autocomplete function to searches conducted in the *iTunes Podcast Search*, *Trending*, and *Discovery* pages.
- [#46](#): Add podcasts to folders [4 points] [Status: Split between 4 & 5]
  - Added some of the functions required to add podcasts to folders created in [#45](#).
- [#47](#): Folders tab [8 points] [Status: Pushed to Iteration 5]

### [Iteration 5](#) (4 stories, 20 points)

- [#46](#): Add podcasts to folders [7 points] [Status: Done]
  - Completed this story, allowing users to add podcasts to any of the folders that they created thanks to story [#45](#).
- [#52](#): Organize the settings page [5 points] [Status: Done]
  - We modified the old settings page to be more usable and user-friendly. Before, all of the settings were largely located on *one* scrollable page. With this story, the different settings were compartmentalized so that the user wouldn't have to waste time scrolling.
- [#81](#): "Recommended for you" checkbox in preferences [3 points] [Status:

Done]

- We modified the story from [#43](#) to have one more option in the checkbox; Automatically generated suggestions. Checking the checkbox produced by this story enables story [#90](#).
- [#90](#): Suggest podcast based on what was previously listened [5 points] [Status: Done]
  - This story modifies the *Discovery* page so that when the checkbox from story [#81](#) is enabled, Recommendations are generated based on your currently subscribed podcasts. Up to ten podcasts from the same artist are displayed, followed by up to ten podcasts with similar titles, and finally 5 trending podcasts from the same category.
- [#47](#): Folders tab [8 points] [Status: Pushed to Iteration 6]

#### Iteration 6, Release 3 (9 stories, 41 points)

- [#47](#): Folders tab [5 points] [Status: **Not Finished**]
  - This story allows a user to remove one or multiple podcasts that were added to a folder.
- [#82](#): Delete Folder [5 points] [Status: Done]
  - This story is concerned with allowing users to delete any folders they created from story [#45](#).
- [#83](#): Delete episode in folder [5 points] [Status: Done]
  - This story allows users to delete episodes in one of their folders.
- [#84](#): Rename folder [5 points] [Status: Done]
  - This story would allow users to rename any of the folders they created using the operations given in [#45](#).
- [#86](#): *Change the order of the episodes in a folder* [5 points] [Status: **Removed**]
  - *this story allows a user to change the order of podcasts in the folder.*
- [#88](#): *Automatically share on Facebook* [5 points] [Status: **Removed**]
  - *This story was concerned with automatically posting what podcast you were listening to on Facebook once you started listening to it. It was removed for reasons outlined in the issue page.*
- [#89](#): Automatically share on Twitter [5 points] [Status: Done]
  - We added the ability for users to automatically post what podcast you were listening to on Twitter once you started listening to it.
- [#92](#): *Local search in episodes page* [5 points] [Status: **Removed**]
  - *We had planned to implement a feature to allow for searching through episodes. It turns out that this feature was already implemented, but someone had removed it by mistake in the second sprint.*
- [#96](#): *Trending on home page* [13 points] [Status: **Removed**]
  - *Planned to implement putting 10 of the trending podcasts on the homepage. Removed due to complications and lack of time.*
- [#97](#): *Recent episodes on home page* [3 points] [Status: **Removed**]
  - *Scoped out since it does not provide a truly meaningful addition to the convenience of the user or their capabilities with the app. [#100](#) is a more meaningful addition.*

- [#98](#): Discovery on homepage [13 points] [Status: *Removed*]
  - *Planned to put 10 suggested podcasts on the home page. Removed due to complications and lack of time.*
- [#99](#): Favorite episodes on home page [3 points] [Status: Done]
  - Added the user's favorite episodes to the home page so that they may be accessed quickly.
- [#100](#): Recent podcasts on home page [3 points] [Status: Done]
  - Added the ability to see the most recent podcast from each of your subscriptions. This feature is especially useful to have on the homepage since it allows you to instantly see new additions.
- [#101](#): Folders on home page [5 points] [Status: Done]
  - Users can now view their newly created folders on the home page.
- [#102](#): Home page view [5 points] [Status: Done]
  - This story allows a user quick access to items from navigation menu directly on the home page.
- [#115](#): Reorganize the functions and the views [5 points] [Status: Done]
  - This story involves a large number of quality of life improvements to Antennapod outlined in the task section of the issue.

### Backlog

- [#93](#): Story: Local research in home page
- [#34](#): Feature: Relate podcasts
- [#35](#): Feature: Parental Control
- [#31](#): Feature: Number of listens

### Overall Arch change

#### [Link to all UML diagrams.](#)

Items shown in red, are related to the current sprint.

The only changes made were the addition of fragments, adapters, methods as well as new concrete classes. The overall architecture was not modified. Many classes used similar methods, and refactoring was needed to reduce code duplication, however such changes would require changing the visibility of certain classes as well as methods. To keep the applications integrity on how the developer intended, these modifications were not implemented.

These add ons allowed for addition of new features and functionality of the application. [SectionDataModel](#), with its helper classes, provided capability for data to be displayed in sections on the home page. [TwitterService](#) provided functionality to automatically share which podcasts were being listened to on twitter. [Folder](#), along with its helper classes, provided ability for users to be able to create new folders and access to add podcasts to these folders.

## Infrastructure

### Twitter - [TwitterCore](#)

Added twitter so that [#89](#) would be possible. Without twitter, we could not have the automatic tweeting feature since we wouldn't be able to login or post tweets.

### [RecyclerView](#)

Data, for the homepage story [#95](#) are displayed dynamically and can contain large amount of data. RecyclerView allows large amounts of data to be passed dynamically as well as horizontal scrolling. An attempt was made using ListView, however our goal was not properly achieved for this story.

### [CardView](#)

CardView was used for the homepage story [#95](#). It provides a unified look for the items being displayed on the home page. Initially padding was used, however our goal was not achieved due to the fact that items were being displayed in different sizes.

## Name Conventions

- [Java naming conventions](#)
- [Android guidelines](#): For naming convention of drawables and layout files.

## Code

Key files: top **5** most important files (full path). We will also be randomly checking the code quality of files. Please let us know if there are parts of the system that are stubs or are a prototype so we grade these accordingly.

File path with clickable GitHub link	Purpose (1 line description)
<a href="#">390AntennaPod/app/src/main/java/de/danoeh/antennapod/fragment/DiscoveryFragment.java</a>	DiscoveryFragment was used for two stories: <a href="#">#81</a> & <a href="#">#90</a> .
<a href="#">390AntennaPod/blob/develop/app/src/main/java/de/danoeh/antennapod/fragment/HomeFragment.java</a>	Fragment responsible for displaying recent activities and folders created.
<a href="#">390AntennaPod/blob/develop/app/src/main/java/de/danoeh/antennapod/fragment/FoldersFragment.java</a>	Fragment responsible for displaying renaming and deleting created folders.
<a href="#">390AntennaPod/blob/develop/app/src/main/java/de/danoeh/antennapod/fragment/FolderItemListFragment.java</a>	Fragment responsible for displaying items from a specific folder.

<a href="https://github.com/390AntennaPod/blob/develop/app/src/main/java/de/danoeh/antennapod/activity/authentication/TwitterAuthenticationActivity.java">390AntennaPod/blob/develop/app/src/main/java/de/danoeh/antennapod/activity/authentication/TwitterAuthenticationActivity.java</a>	Activity responsible for the authentication of a Twitter session.
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## Testing

List the **3** most important **unit tests** with links below.

File path with clickable GitHub link	What is it testing (1 line description)
<a href="https://github.com/390AntennaPod/blob/develop/app/src/androidTest/java/de/test/antennapod/folders/FoldersTest.java">390AntennaPod/blob/develop/app/src/androidTest/java/de/test/antennapod/folders/FoldersTest.java</a>	Test class responsible for testing FoldersFragment functionalities.
<a href="https://github.com/390AntennaPod/blob/develop/app/src/androidTest/java/de/test/antennapod/homepage/HomeTest.java">390AntennaPod/blob/develop/app/src/androidTest/java/de/test/antennapod/homepage/HomeTest.java</a>	Test class responsible for testing HomeFragment functionalities.
<a href="https://github.com/390AntennaPod/blob/develop/app/src/androidTest/java/de/test/antennapod/twitter/TwitterTest.java">390AntennaPod/blob/develop/app/src/androidTest/java/de/test/antennapod/twitter/TwitterTest.java</a>	Test class responsible for testing Twitter session and service functionalities.

List the **3** most important **UI end to end (espresso) tests** with links below.

File path with clickable GitHub link	What is it testing (1 line description)
<a href="https://github.com/390AntennaPod/blob/develop/app/src/androidTest/java/de/test/antennapod/ui/MainActivityTest.java#L761">390AntennaPod/blob/develop/app/src/androidTest/java/de/test/antennapod/ui/MainActivityTest.java#L761</a>	Enables twitter automatic tweets and checks if it was successful.
<a href="https://github.com/390AntennaPod/blob/develop/app/src/androidTest/java/de/test/antennapod/ui/MainActivityTest.java#L773">390AntennaPod/blob/develop/app/src/androidTest/java/de/test/antennapod/ui/MainActivityTest.java#L773</a>	Adds two new folders and checks if they appear on the homepage.
<a href="https://github.com/390AntennaPod/blob/develop/app/src/androidTest/java/de/test/antennapod/ui/MainActivityTest.java#L695">390AntennaPod/blob/develop/app/src/androidTest/java/de/test/antennapod/ui/MainActivityTest.java#L695</a>	Deletes a folder and checks that it does not appear in any tab.

Note that we were restricted in testing Twitter features because Mockito was unable to mock any Twitter SDK object and we were unable to click on the Twitter app because it does not allow injection of events.

## Static Analysis

We added the [findbugs](#) static analysis tool to detect bugs in our Java code such as bad practice, performance or vulnerability warnings. Findbugs was also integrated into our continuous integration process using circleCI. The findbug reports can be found in the artifacts tab of a circleCI build under *tmp/circle-junit/findbugs/findbugs.html*

[Here is an example of a findbugs report](#)