

Product Backlog

Team 3

Joshua Bowman

Felipe Cantagalli

Kriti Kochar

Kaiwen Xu

Elliott Mantock

Problem Statement

Wikipedia has lots of useful articles that help our work and study. However, currently there is no Android app on Google Play Store that helps a user read Wikipedia articles effectively adapt to a mobile experience.

Background Information

Wikipedia has lots of links in their articles which direct users to related articles. When users are reading articles, they may find other articles that interest them. So in the official Wikipedia app, the only choice users have is to either continue reading the current one, then after that, go back to the link to read another one; or, a user can click the link, go to another article and stop reading the current one. This is a bit annoying, so we have decided to build a better Wikipedia app which majorly focuses on allowing users to open different articles in different tabs (up to 10), so that they don't have to stop their current readings.

Environment

This app will be coded in Java. It should work for Android 4.0 or later. In order to interact with Wikipedia's server, using namely http GET (and POST if necessary) request, we may choose to use Volley, which is a Apache HttpClient wrapper library and it's included in Android source tree. Since we are dropping support for Android 2.3.3, the app can now utilize native Holo theme. The ActionBar, Context Menu, Navigation Drawer, etc. will be used. Because of that, we are considering using the mobile version of Wikipedia website to display content. Some modification to the original UI will be necessary, so we might also need to write JavaScript code to be injected into the web page.

Functional Requirements

ID	Backlog Item	Estimate
1	As a user, I want to view a single article.	6 hrs
2	As a user, I want to view multiple articles in up to 10 tabs simultaneously.	12-20 hrs
3	As a user, I want to be able to save links to articles to view offline.	6 hrs
4	As a user, I want to be able to share links to articles.	2 hrs
5	As a user, I want to be able to switch languages easily when reading an article.	4 hrs

6	As a user, I want to be able to bookmark some favorite articles.	10 hrs
7	As a user, I want to be able to zoom into the content viewed in the article	5 hrs
	Total	48-56 hrs

Non-Functional Requirements

- Usability
 - Application should be intuitive and easy to use
- Reliability
 - Application should work whenever Wikipedia is available
 - Application should not crash with increased number of tabs
- Platform
 - Application should work with Android 4.0 or later
- Resource Usage
 - Managed memory and battery usage when different articles are opened
- Response time
 - UI element response time should be minimized

Use Cases

Case: Launch App

1. Click the app icon in Launcher

System Response

2. Main screen appears

Case: Search and View Article

1. Choose “Search” command

3. Type in the search term

4. Confirm search

System Response

2. Search dialog appears

5. Article loads

Case: Open Link

1. Click on a link inside an article

System Response

2. Displays the new article

Case: Open New Tab

System Response

1. Use gesture to open navigation drawer
3. Click “+” to open new tab

Case: Switch Tab

1. Use gesture to open navigation drawer
3. Click on a new tab

Case: Close Tab

1. Use gesture to open navigation drawer
3. Click on the tab close button

Case: Save Article for Offline Access

1. Choose “Save article” command
3. Close current article
4. Lose internet connection
5. Reopen previous article

Case: Share Article

1. Choose “Share” command
3. Choose share to where
4. Confirm selection

Case: Switch Language

1. Choose “Language” command
3. Select Language
4. Confirm selection

Case: Zoom article

1. Use gesture to zoom into an area

2. Navigation drawer opens
4. New tab opens with main screen

System Response

2. Navigation drawer opens
4. New tab appears

System Response

2. Navigation drawer opens
4. The selected tab closed

System Response

2. Article saved
6. Article displays

System Response

2. System share dialog appears
5. Article shared successfully

System Response

2. Language dialog appears
5. Shows in specified language

System Response

2. Zoomed in/out article appears