

PROJECT 3.2.3

Location Awareness - Design

INTRODUCTION

Now that you have used Google Play services to detect a device's location and to display **markers** on a map, you can enhance your social networking app to make it *location aware*. In this project, you will use the Agile methodology to gather and design the location-awareness features, which you will build soon in this lesson. In addition to the design process you learned in Unit 2 to *create* a product, you can use Agile development to *enhance* an application and/or fix problems and bugs.

marker

An icon placed at a particular point on the map's surface to represent a location on the map.

Materials

- Computer with Internet connection
- Free proto.io account per student

RESOURCES



Lesson 3.2 Reference Card for Google Play Services
Resources available online

Procedure

Work with your social networking app partner. Practice pair programming and make sure to switch roles often.

- 1 Refer to the Agile software development process used in previous projects. In this project, you will work on the Define and Strategize steps focusing on location-awareness features for the app.
- 2 Review the criteria for the project defined in the 3.2.4 *Requirements* document.

- 3 Work with your partner to brainstorm a list of location-awareness features that you would like to incorporate into your social networking app.
- 4 Create your **backlog** and prioritize it with the **user stories** that are most important (“must-haves”) at the top of the list and those that are optional (“nice-to-haves”) at the bottom of the list.

Backlog
<input type="checkbox"/>
<input type="checkbox"/>
<input type="checkbox"/>

- 5 From the previous unit, review Iteration Planning in the *2.2.6 Integration Testing and Unit Testing* presentation.
 - a. (Optional) Add time estimates to each user story.
 - b. Break each of the high-priority user stories into a number of smaller technical tasks.
 - c. Add a time estimate for each task.
 - d. Create a **task list** from the tasks you identified. Your first sprint will focus on these tasks.

User Story Sprint Task List
1.
2.
3.
4.

- 6 Log in to proto.io to edit your SocialNetworking project.
- 7 Develop a prototype for your first sprint.
 - a. Keep in mind the following as you develop the prototype:
 - What screens are needed?
 - What components should go on those screens?
 - How will a user navigate from one screen to another?
 - How does the design affect the usability of the app?
 - b. Remember that one of the objectives of designing a solution is to flush out any further questions and/or requirements that might surface as you work on your design. Make sure to update your backlog and/or task list as you work on your prototype.

Google services, such as location detection service, represent “third-party software,” meaning it is not part of the standard Android™ Studio functionality. Backendless is another example. Third-party software is very useful and saves time by providing additional functionality to an app. But sometimes, third-party software can be untrustworthy or buggy. Using third-party software can introduce risks, and as a software developer, it will be your responsibility to make sure all software is safe and reliable.

- 8 The software used in your app has been researched and verified to be safe and reliable third-party software. Research the Web to find some of the “worst third-party software”.

Important: Be careful not to follow links that reference any of this dangerous software!

Describe at least two types of software to avoid.

CONCLUSION

1. Did the backlog and task list help or hinder your app design? Explain your thoughts.
2. Describe how the development of your prototype helped evolve your app.