

PROJECT 2.1.2

Prototyping with proto.io

INTRODUCTION

In the previous activity, you learned to use criteria for usability to evaluate an app. You also learned about UML and how to use it to communicate about the design specifications for a solution to a problem. In this activity, you will record information that will help you use proto.io, a rapid **prototyping** tool for apps, to create a mockup of an Animal Shelter app.

prototype

A version of your final product that lacks some of the functionality of the final product; generally created quickly and used to test out design ideas without going through the whole product creation process.

Materials

- Computer with Android™ Studio
- Android™ tablet and USB cable, or emulator
- Free proto.io account per student


RESOURCES



College App Problem Statement
Resources available online

Procedure

Part I: Prototyping with Screens and Navigation Functionality

- 1 In your browser, navigate to  <http://docs.proto.io/documentation/get-started/>. Use the video on this site to help you record the timestamps at which you can find the following information:
 - a. How do you create a new project?
 - b. How do you give your project a title and choose which device it will support?

NOTE

You will select the **Android** tab, choose **S Galaxy S5** and use the Blank Project template.

c. How do you edit your newly created project?

NOTE

Your free account will only allow you to have one project in the dashboard.

d. How do you get UI items onto your screen?

e. How do you modify the UI items once they are on the screen?

f. Where do images for your prototype come from?

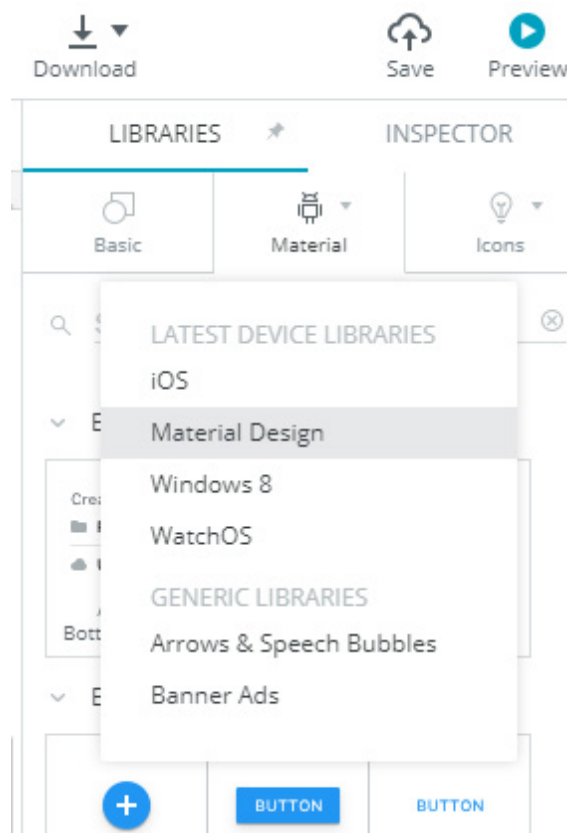
g. How do you add a new screen to your prototype?

h. How do you link two screens together?

i. How do you save your project?

j. How do you preview your prototype?

- 2 As you develop your own prototypes, you will use the UI components in the Material Design components library, which you can select from the components libraries menu as shown below.



Material Design is Google's UI model. What kind of visual cues does Material Design use to help convey information to the end user about how to interact with an app? Use the following web pages to help you answer:



<https://material.io/archive/guidelines/material-design/environment.html>

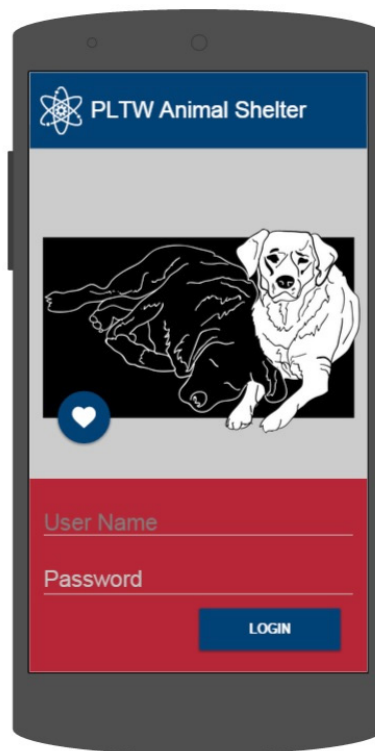


<https://material.io/archive/guidelines/material-design/material-properties.html>



<https://material.io/archive/guidelines/material-design/elevation-shadows.html>

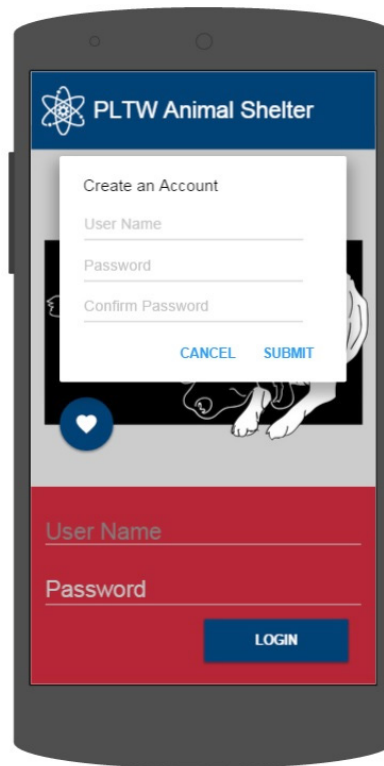
- 3 Log in to **proto.io** and create a project named **AnimalShelter**. Use the Android device **S. Galaxy S5**.
- 4 Use the answers you found in the beginning of this activity to help you create a screen named **Login** that looks like the following:



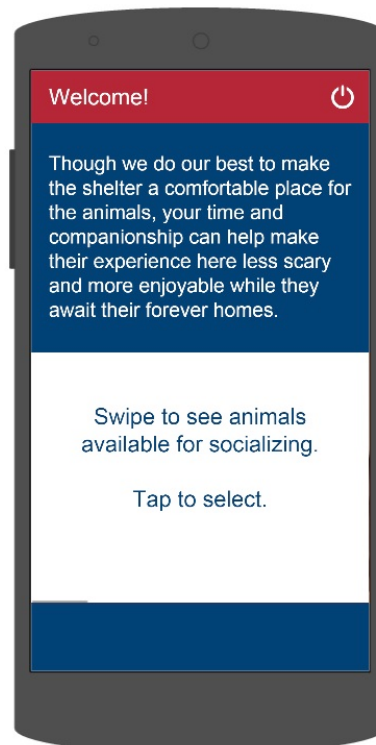
NOTE

Use rectangles for areas of the screen that won't have interactivity.

- 5 Make sure that tapping the heart icon takes the user to the following screen named **NewUser** to create new user credentials:




- 6 Modify your prototype so that the Cancel button returns the user to Login.
- 7 Modify your prototype so that the Submit button takes the user to a new screen named **Welcome** that looks like the image below.



To save you time, the text in white font is provided here:

Though we do our best to make the shelter a comfortable place for the animals, your time and companionship can help make their experience here less scary and more enjoyable while they await their forever homes.

- 8 Use the video found at the following link to help you make the white region in the Welcome screen into a scrollable carousel that contains all of the images of dogs and cats provided for this activity as media assets.  <http://docs.proto.io/videos/scrollable-areas-and-snap-containers/>
- 9 Modify the power icon in the upper right-hand corner of the Welcome screen so that it takes the user back to the Login screen.

CHALLENGE Add a tooltip that displays for five seconds above the action button and then vanishes only the first time that a user navigates to the Login screen.

Part II: Additional Features

In this part of the activity, you will have a chance to brainstorm and develop additional features for your app.

- 10 On your own, brainstorm a list of additional things you'd like to see this prototype do. Remember, a prototype will have limitations.

- 11 As directed by your instructor, share your lists with the entire class. Your instructor will provide guidance as to which additions will be manageable in proto.io.
- 12 Develop some of the features your class brainstormed until directed to stop by your instructor.
- 13 Share with the class any difficulties you encountered and how you overcame them, as well as any helpful tips you've found, as directed by your instructor.

Part III: Prototyping Your Own App

Working in groups as directed by your instructor, you will choose an idea for an app that you'd like to prototype as a group, and develop that prototype.

- 14 Meet with your group and set group norms before beginning to work on this app.
 - Decide on what screens are most essential to the app.
 - Discuss what components should go on those screens.
 - Decide how a user should get from one screen to the next.
 - Develop the prototype in proto.io.
- 15 Switch prototypes with another group as directed by your instructor.
- 16 Play the role of quality assurance team members by testing the prototype and giving feedback to the other team on its usability and next steps for development.
- 17 Based on the other group's feedback, record your thoughts about your prototype's strong points and areas for improvement.

CONCLUSION

1. When you developed additional features for the Animal Shelter prototype, were there parts of the existing design that felt cumbersome, or that flowed naturally with the features that you added? Why do you think these parts either flowed or didn't?
2. What purpose do you think prototyping has in the life cycle of mobile app development?
3. Why do you think it might be important to test a prototype on several different platforms?