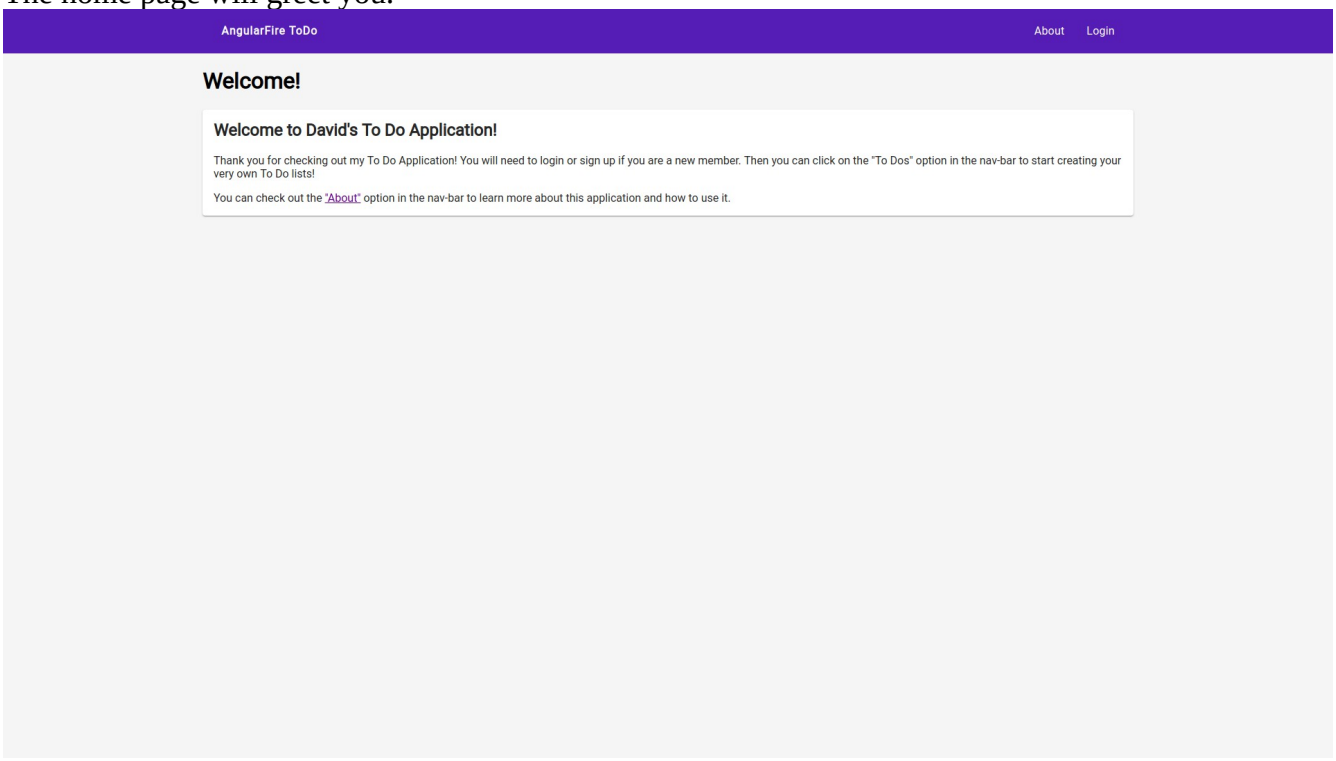
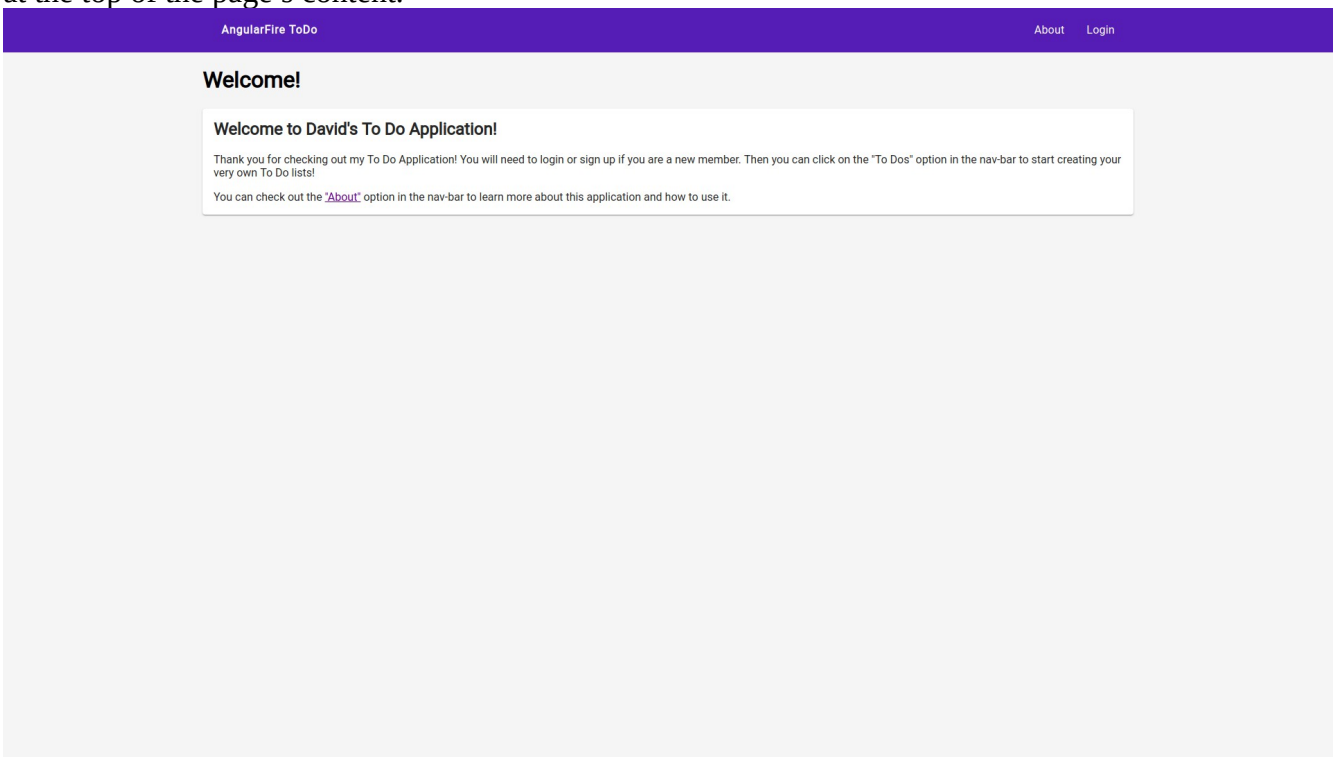
How to use David’s ToDo Application

Link to website: https://davids-firebase-todo.firebaseapp.com/home

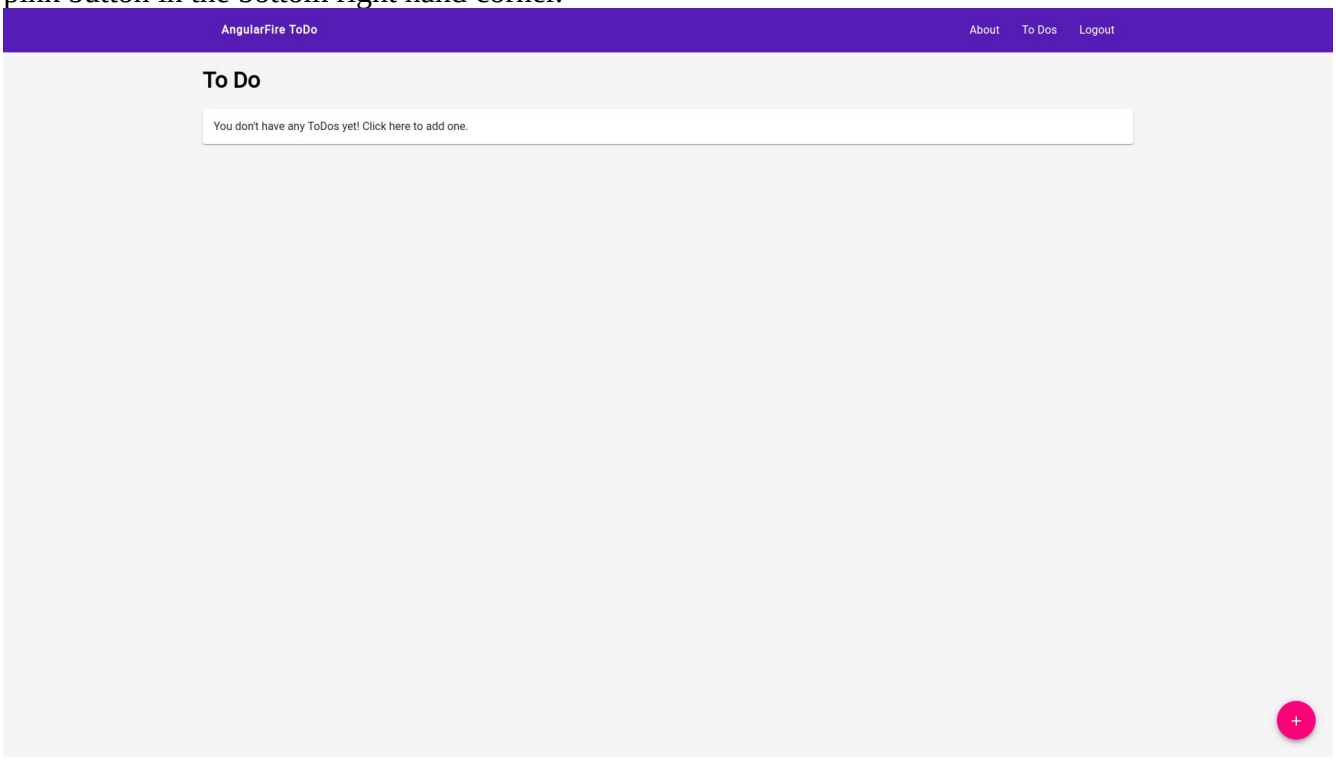
The home page will greet you.



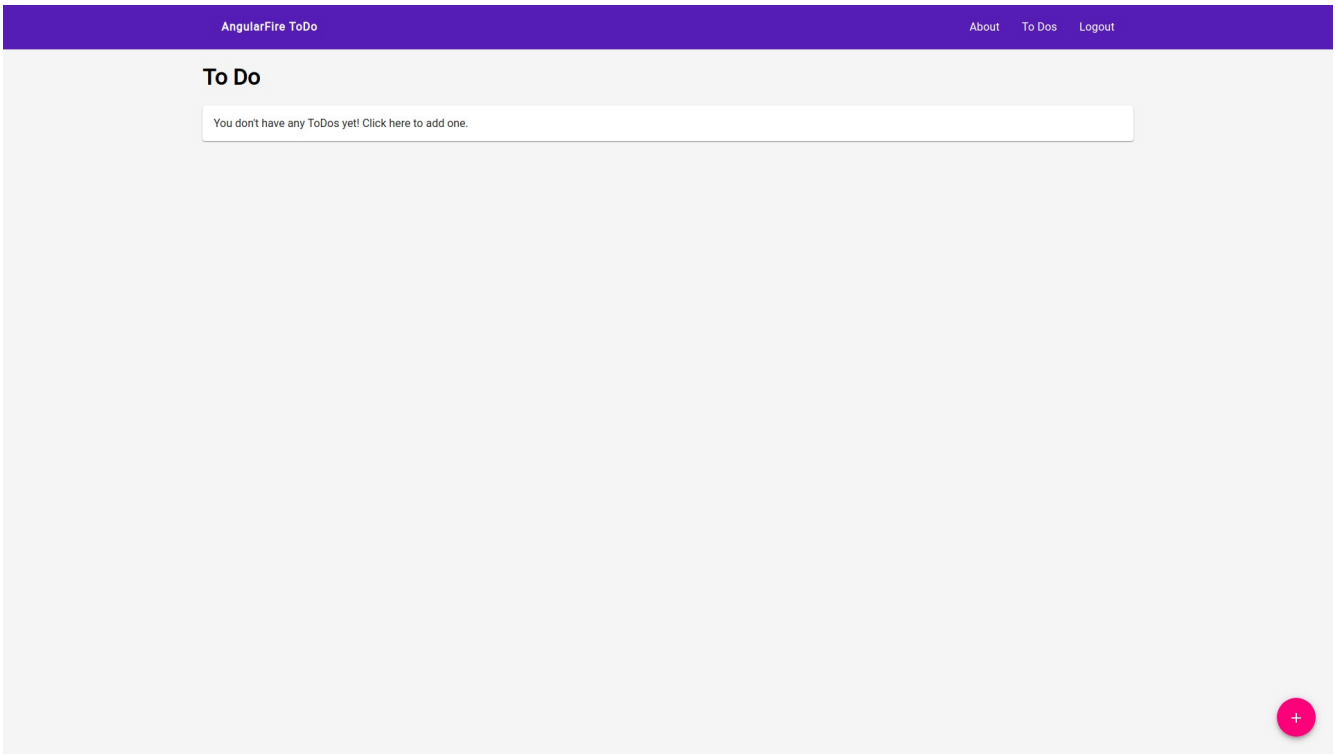
You will then need to create an account by clicking on the “Login” button at the top-right of the screen. Type in your email and a password. If you are a new user, you will need to make sure it says “Sign Up” at the top of the page’s content.



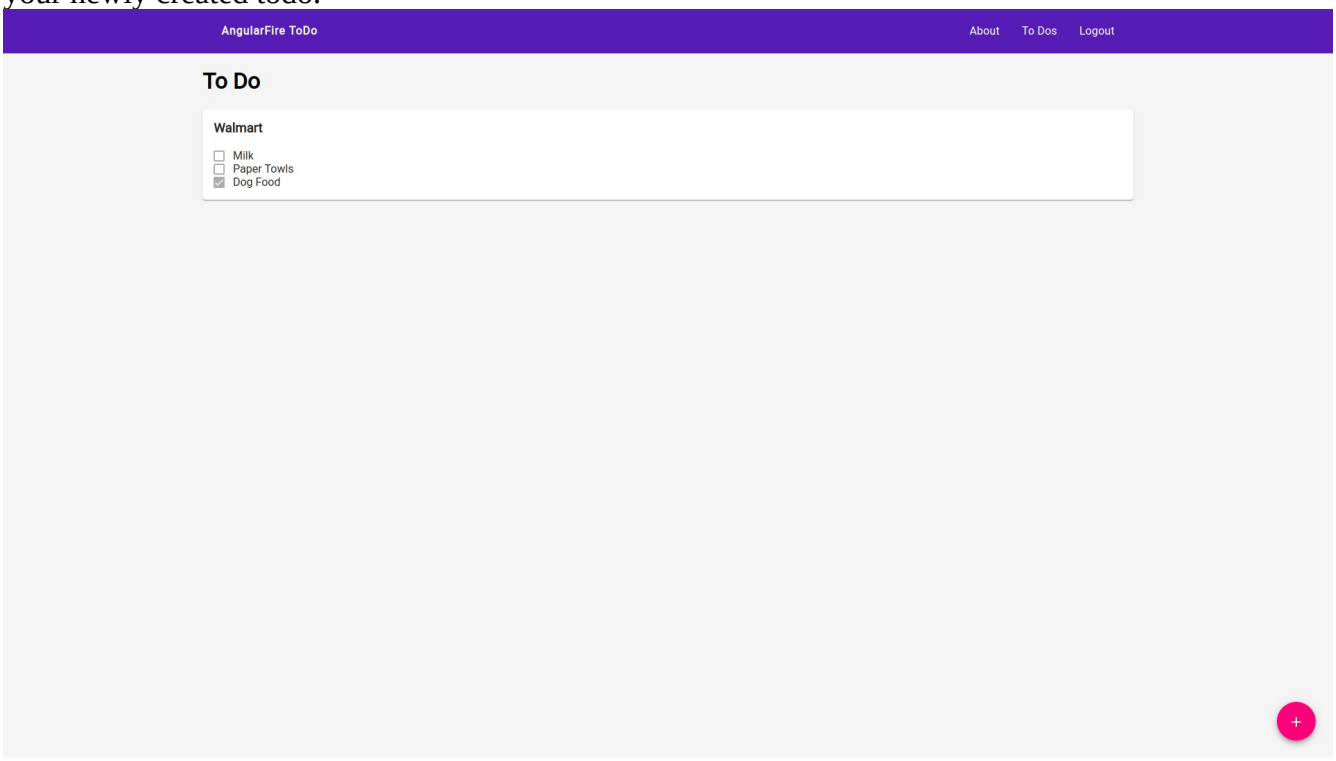
Once you have signed up or logged in, you will be redirected to the ToDo List page where you will see all your todos. To create your first todo, click on the message in the center of the screen, or click the pink button in the bottom right hand corner.



Give your todo a title and click the black “+” icon to add an item to the list. You can check off the items as you complete them. Or you can remove the items by clicking the “trash” icon to the right of the item.



Clicking the “save” or “delete” button will redirect you back to your todo list page where you will see your newly created todo.



When you are done, you can go ahead and click the “Logout” button. I hope you enjoy the application!

Code Walk through

The application was written in Angular (https://angular.io/) and Firebase (https://firebase.google.com/) which has excellent integration in the AngularFire project (https://github.com/angular/angularfire2). I used (https://code.visualstudio.com/) as my IDE.

Angular using modules to break up the app files. I could have used just one because this is a small app, but I decided to use feature modules instead. Each feature module has a ".module.ts" file that defines its components, imports, and exports. Lets walk through each feature module.

App module (src/app)
This module bootstraps the application and gets Angular started. In the app.component.html file there is code to get the nav-bar on the page and to define where all the router-outlets should go. The app.module.ts itself defines all modules needed to get the app going to include Firebase configuration.

App-routing module (src/app)
This is in the same directory as app.module.ts. This module defines all the routes for the application and then provides them to app.module. That is its only purpose.

About feature module (src/app/about)
This module is super small. It iframes the instruction (located at src/assets) into the main view.

Core feature module (src/app/core)
This isn't technically a module but more a folder for all services. Because Angular services are provided in 'root', they don't need their own module. This folder has the auth.service, auth.guard, and todo.service. The two services talk to the Firebase database and perform other basic logic. The guard prohibits unauthenticated users from accessing restricted pages.

Home feature module (src/app/home)
This module is fairly simple as well. It just displays a welcome page with some generic text on it.

Shared feature module (src/app/shared)
This module doesn't have any pages in it. It simply defines some shared modules so other feature modules can import the shared module without having to duplicate a lot of other imports. Shared module also defines the nav-bar component.

Material feature module (src/app/shared)
This module is in shared as well because it just imports all needed material design elements for the shared.module. This way all modules that import shared will have access to the material elements.

Todo feature module (src/app/todo)
This module has to two main view: todo-list and todo-edit. The todo list will list all the user's todos out. They can click on one to edit it or click on the create new button to create a new todo. The todo edit component lets the user make changes to a todo or create a new one.

User feature module (src/app/user)
This module handles all the login and signup functionality. It is a pretty basic login form component.

References:
I learned AngularFire by watching a video on pluralsight.com title Building Apps with AngularFire 2 taught by Duncan Hunter. It was filmed in September 2017. Pluralsight requires a license to view the video, but here is the link: https://app.pluralsight.com/library/courses/angularfire2-building-apps/table-of-contents

About me:
This application was written by David Houseknecht (djhouseknecht@liberty.edu) for my CSIS 408 class at Liberty University. The source code can be found on my github: https://github.com/djhouseknecht/angularfire-todo