

FoodGenius - Project Description

Our team consists of Daniela Scheling, Luca D'Agostino and Robert Lange. We all had programming knowledge but we never made an app ourselves. Despite that we mastered our project quite well as a team. We started with a rough planning of the work packages for creating the app. We discussed our strengths and created the first framework. Daniela dealt with setting up AndroidStudios, created the individual screens and the associated navigation and links. In general, the app can be navigated through the symbols in the app, as well as through the back button on the phone. Luca and Robert dealt with the Firebase related tasks, what options we got for storing our data in it and how it can be implemented in our code. Daniela filled the "Create a recipe" page with the associated widgets so that the data can be transferred to the Firebase Database. After a lot of back and forth, we decided that the user should be able to create a recipe on one screen, so that he/she doesn't have to click through many pages. To create a recipe, the user needs to enter a name. This is followed by a button to upload an image. The integration of the uploaded image into the Firebase caused some problems for Luca and Robert but they could solve it. This is followed by an element that adds the ingredients of the recipe to a list. At least 2 products with quantities in g or ml must be added. We decided to use the metric system. These are displayed after entry under the element. Each product can be deleted again. Below the list, the user must decide whether the recipe is classified as meat, vegan or vegetarian. In addition, he can also choose if it is gluten-free or lactose-free. Luca and Robert determined the function behind these toggle buttons and linked them to the Firebase. In the next section, the user can specify protein, carbs and fat. The calories are calculated using the function set up by Robert. In the last step, the preparation must be described. The recipe can be saved through the "Save" button. To create a recipe, the user must be logged in. For this purpose, he gets to the login when opening the app for the first time. If the user doesn't have an account, he must create one first via the Signup page. Daniela dealt with the creation of the two screens and Robert and Luca with the associated authentication through Firebase. If the user has successfully logged in, they will be taken to the homepage. The homepage caused Daniela some problems. Since each image that is saved in a recipe has a different size, there were many render border errors when displaying the created recipes, but Daniela was able to solve this. Robert and Luca generated a recipe shuffle feature so the user would see new recipes every time he/she came to the homepage. If the user wants to get detailed information about one recipe, he can click on it and he will get to the recipe detail view. Daniela created the layout, Luca and Robert dealt with the generation of information on how the data from the database is displayed on the page. There were some complications, since the selected recipe was not always displayed, but rather invalid data. But after some deliberation, Luca and Robert were able to solve this. The user can access any other function from the homepage. He/She can create a new recipe as well as search for one. The search symbol in the app bar directs the user to the search page. Through the search page the user can search for individual as well as combinations of information. Daniela dealt with the implementation of the widgets and Luca and Robert with the logical implementation which also caused them some problems. The logical implementation of every combination the user can choose was quite hard, but Luca and Robert were able to solve it. The results are displayed

in a list on another page and each recipe leads to its own recipe view. Daniela has added a side menu to the homepage, which allows the user to see which email the user used to register and various elements that directs the user to other pages. The first item is the favorites list. The favorite screen is filled with data when the user favors one or multiple recipes. Robert has dealt with this functionality. Each recipe has a heart in the app bar which the user can select. The favorite recipes are then displayed in the list. If the user no longer likes this recipe, he can also remove it and it will no longer appear in the list. From the menu you can also access the search and create a new recipe screen. As a fourth element, the recipes created by the user are displayed in a list. These recipes can only be deleted by him/her on the recipe page, Robert has dealt with this as well. The last element shows the log-out that Robert and Luca implemented. This leads the user to login again. When we were finished with the entire logical part of the app, Daniela dealt with the final app design.

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