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*DRAFT*

of the paper

“Developing Software Products: «cOOk» application”

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3. General specifications of the coursework

The purpose of the study is to create an Android application, that should receive data from the internet and process and perform it.

Additional requirements to this application are following:

* The application may contain several Activities
* The application may contain data logging, such as reporting about data obtaining success/failure
* The application may save the state
* The application may perform data using RecyclerView
* The application may use Room to store the data
* Other.

1. “cOOk” application

The topic of given application is cookery. It was chosen in accordance with free API keys for different servers and personal interests. Particularly, the “cOOk” application is related to the website [www.themealdb.com](http://www.themealdb.com), which allows anonymous users to use an access to the adequate server with API key “1” for non-commercial purposes, such as university studies.

Thus, the aim of the study turned into creating a cookery application, that would facilitate the cooking process by providing pleasant and serviceable access to the recipes database.

There were three groups of people chosen as a target audience.

1. Business ladies, which are used to modern technologies and usually have no time to spend it in the kitchen, but accidentally it occurs an unusual situation and they are to cook. In this case, available via smartphone recipe database would allow them quickly to find an adequate recipe, follow step-by-step recipe and solve their issue.
2. Young housewives, which are not used to cook and have nobody to give them an advice. For them, this smartphone application would become a wonderful guide to the cookery world.
3. Lovely husbands, that usually don’t do cooking, but sometimes decide to make their wives a surprise and entertain them with some delicious dishes.

To satisfy all the target needs, the “cOOk” application user interface should be intuitively understandable and highly useable. On the other side, it should be attractive and have its own high point to be competitive on the market. Therefore, an attempt was made to combine these features in the user interface (UI).

UI is decorated in warm yellow and orange colors, with contrast dark text. First view of the UI opened consists of a search string, button and list of categories available. Inscriptions on the button and search string are intended to prompt the user, what are they responsible for.

Click on the button “Get a random recipe” changes the view to the one that performs name, image, list of ingredients and instruction of a random recipe. This button works appropriate regardless of proper internet access.

Click on the magnifying glass after entering name of the wished dish changes the view to the scrollbar list of meals, that correspond to the entered words. Here should be noticed, that the attempt to invoke this view without filling the search string would cause a small window with adequate warning. If the search string had been filled and new view has appeared, then click on any item of the list, in part, would change the view to the one that performs name, image, list of ingredients and instruction of the chosen recipe.

Every category is accompanied by its image, so that it was easier to distinguish categories. Both images and the category name are buttons, and click on them leads to another view with the scrollbar list of meals, that correspond to the chosen category. Click on any of them, in part, would change the view to the one that performs name, image, list of ingredients and instruction of the chosen recipe.

Besides that, click on the magnifying glass or attempt to view the list of meals from the selected category without internet access would cause a small window with adequate warning.

It must be mentioned that all of the views look pleasant in both portrait and landscape screen orientations.

“cOOk” Software consists of eight packages – “mainactivity”, “mainviewmodel”, “alertscreens”, ”sources”, “database”, “category”, “randomrecipes”, ”searchrecipes”.

1. “mainactivity”

This package consists just of one class – “MainActivity”, which is the first application activity and processes the first view.

1. “database”

This package contains “RecipeDB” class and “RecipeDao” interface. They are responsible for setting database parameters and queries. Also this package contains three classes “ItemEntity”. “RandRecipeEntity” and “RecipeEntity”, which declares respective entities of the database.

1. “sources”

This package consists of 5 classes. “APIService” class contains different direct requests to the server. “RemoteDataSource” class sends requests from “APIService” to the server and takes the answer. “LocalDataSource” class contains methods to save data to the database entities. “Repository” class saves obtained from RemoteDataSource data to the LocalDataSource. “NetworkManager” checks if there is an available network, otherwise there would be invoked alertscreen “NoInternetScreen”.

1. “mainviewmodel”

This package consists just of one class – “MainViewModel”, which manages data from RemoteDataSource and LocalDataSource in accordance with the connection to the server.

1. “alertscreens”

This package contains “EmptyInputScreen” class, which is invoked after attempt to search for dish by its name without filling the search string, and “NoInternetScreen” class, which sets a warning, if user tries to invoke class, that requires internet access, without internet connection.

1. “searchrecipes”

This package consists of six classes. Classes “Meals” and “MealRecipeList” are responsible for declaring set of obtained after according request data and performing it as a list of Meals. “SearchRecipe” class loads data from MainViewModel and calls for “RecipeAdapter” class to perform these data, which, in turn, performs it as a RecyclerView. “ShowThisRecipe” class performs full set of data of the chosen recipe, and the “IngrsAdapter” performs list of ingredients from “ShowThisRecipe” as a RecyclerView.

1. “category”

This package consists of five classes. Classes “CategoryItem” and “CategoryItemList” are responsible for declaring set of obtained after according request data and performing it as a list of CategoryItem elements. “CategoryItems” class loads data from MainViewModel and calls for “CategoryAdapter” class to perform these data, which, in turn, performs it as a RecyclerView. “ShowThisItem” class performs full set of data of the chosen recipe.

1. “randrecipe”

This package consists just of one class – “RandRecipe”, which loads data about random recipe from MainViewModel and represents it.