




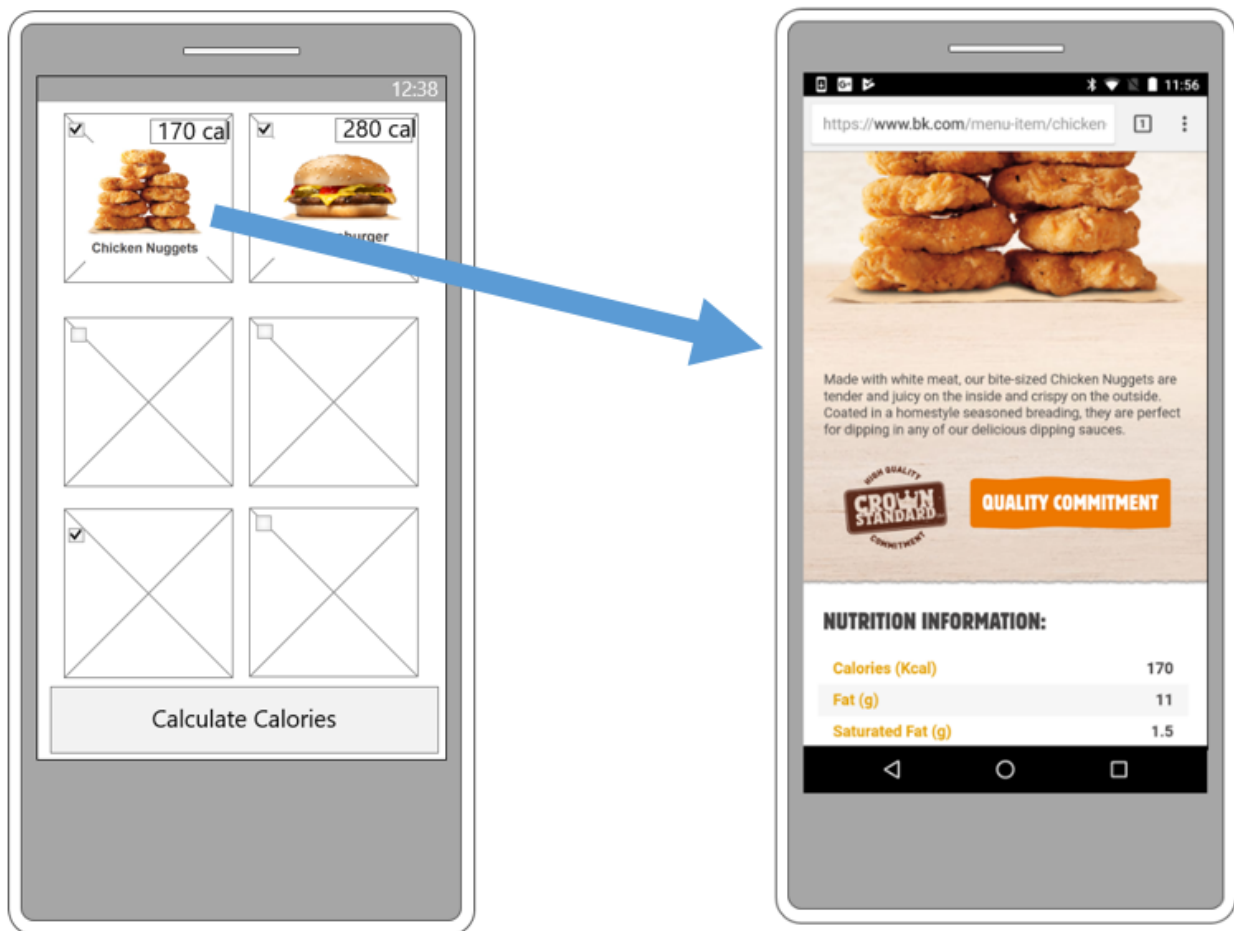


HW1 Burger App

This homework exercises your abilities in **GUI design** and handling multi-**activity design and implementation**. The task asks that you use GUI components and intent to enable navigation between **various user actions**. The application to be developed is burger calorie calculator. The requirements are:

1. The application uses **data from BurgerKing** (www.bk.com) and is designed for customers to evaluate calorie consumption.
2. The application must contain **3 screens** (Activities): a **menu screen** showing **15 items on BurgerKing's value menu** (refer the **pic** from the **website** below) for the user to choose; a **summary screen** showing **user's choices**, **total calories**, default user information and recommendation on whether the **proper amount of calories**; a **configuration screen** allowing user to **configure user information**.
3. The **menu screen** should show **all the items** listed on the **value menu** from **bk.com** (see https://www.bk.com/menu/value_menu). For each item there must be a **picture of the food**, **name of the food**, and **calories of the food** (user data from the website). You must use **GridView** to implement this screen. When the user clicks on the food, show the webpage of that food from bk's **website for details**. Each item should have a checkbox for the user to select food on the menu. At the bottom, there must be a calculate button to navigate to the summary screen.

		
Chicken Nuggets	Chicken Jr.	Spicy Chicken Jr.
		
Cheeseburger	Double Cheeseburger	Bacon Cheeseburger
		
Bacon Double Cheeseburger	French Fries	Onion Rings
		
Vanilla Soft Serve	Coca-Cola®	Diet Coke®
		
Dr Pepper®	Sprite®	Frozen Fanta Cherry ICEE®



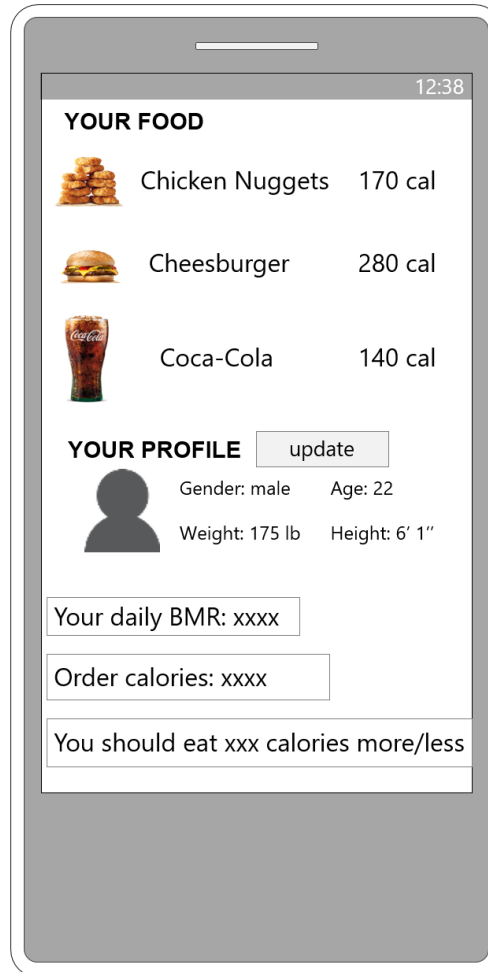
4. The **summary screen** should contain 3 parts. On the top, the app shows a RecyclerView of all the selected items from the menu screen. For each item, show an icon of the food, the name of the food, and the calorie value. In the second section, show the user information, including a (fake) profile image, gender, age, weight, and height. Give reasonable default values in this section. There must be an “update” button or icon to launch the configuration screen. At the bottom, do the calculation and show three information: daily recommended calorie amount, total selected item calories, and the calorie amount the user is above/below the recommended calories. Refer to this website for calorie recommendation: <http://www.calculator.net/calorie-calculator.html>).

Use the following formula:

For men: $BMR = 10 \times \text{weight(kg)} + 6.25 \times \text{height(cm)} - 5 \times \text{age(y)} + 5$

For women: $BMR = 10 \times \text{weight(kg)} + 6.25 \times \text{height(cm)} - 5 \times \text{age(y)} - 161$

The unit conversion must be implemented properly.



5. The user should be able to update their information on the **configuration screen**. You can add an "update" button or icon on the summary screen to launch the configuration screen. On the configuration screen, the app must allow the user to type in age, weight, and height. After the user clicks the update button or the back button, the new values should be presented in the summary screen,

with the updated BMR value and calorie recommendation.

12:38

UPDATE YOUR INFORMATION

Gender: ☒ Male ☐ Female

Age:

Weight: lb

Height: feet inches

6. The GUI of the app must be properly implemented. Provide instructions or hints by using Toast.
7. User input must be properly handled. Deal with unreasonable or incomplete input (e.g. 200 for age). Use your judgment on the input range and the notification messages.
8. All required screens (Activities) must be accessible from one to another. Make sure the user is not stuck at one activity and won't be able to navigate to other screens.
9. The data, including but not limited to, the selected menu items, total

calories, user profile, must be consistent throughout the user navigation. You can assume the user does not press the home button, power button, app-overview button or rotate the screen while using the app. The data can be inconsistent only during those cases. But the data must be consistent while the user switches to different screens of the app.

Your homework will be graded based on the following criteria:

- Required GUI and user input is properly designed and implemented (50%)
- Data is consistent throughout the navigation (20%)
- User navigation is properly implemented (20%)
- Bug-free (10%)