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# HouseholdHero Application

Metropolia University of Applied Sciences

Engineer (Bachelor's Degree)

Information and Communication Technology Degree Programme

User Guide

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## **1 Project description**

HouseholdHero is a grocery tracking and budget management application for everyone interested in budget-friendly and ecological food consumption.

The key features of the application are:

### **Budget management**

- You can set a budget for a selected time period and an amount of your choice
- You can check your planned, spent and remaining budget and track whether you stay on budget

### **Keeping track of products in your fridge**

- You can add products to your fridge
- With the help of the products' status information, you can manage your fridge
- You will always know whether you have food at home and if it's still fresh
- You can prioritize using products that are about to expire soon

### **Keeping track of food waste**

- You can see how much food during a budget period has gone to waste
- You can adjust your grocery shopping and food consumption habits to reduce food waste

## 2 Installation and configuration

Required software:

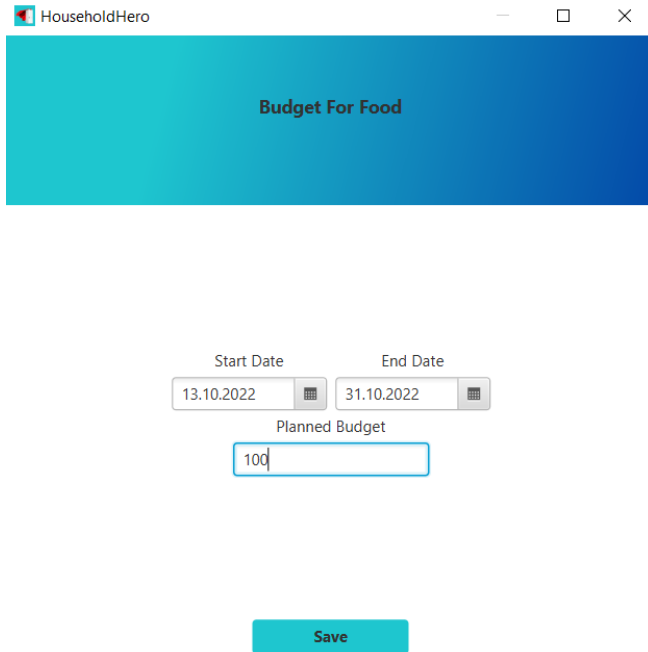
- Eclipse IDE
- Cisco AnyConnect Secure Mobility Client (Required to connect to our database server)

Steps:

1. Clone the Git repository to your machine.
2. Import the project to Eclipse. File > Open projects from file system...
3. Connect to vpn.metropolia.fi using the Cisco AnyConnect Secure Mobility Client and login using your Metropolia credentials.
4. Run the application by right clicking the project name in Eclipse and selecting Run As > Java Application.

### 3 How to use HouseholdHero

#### Budget



HouseholdHero

Budget For Food

Start Date 13.10.2022

End Date 31.10.2022

Planned Budget 100

Save

Figure 1: Once you open the application for the first time, you have to set a budget for groceries for a certain time period and a certain amount of money.

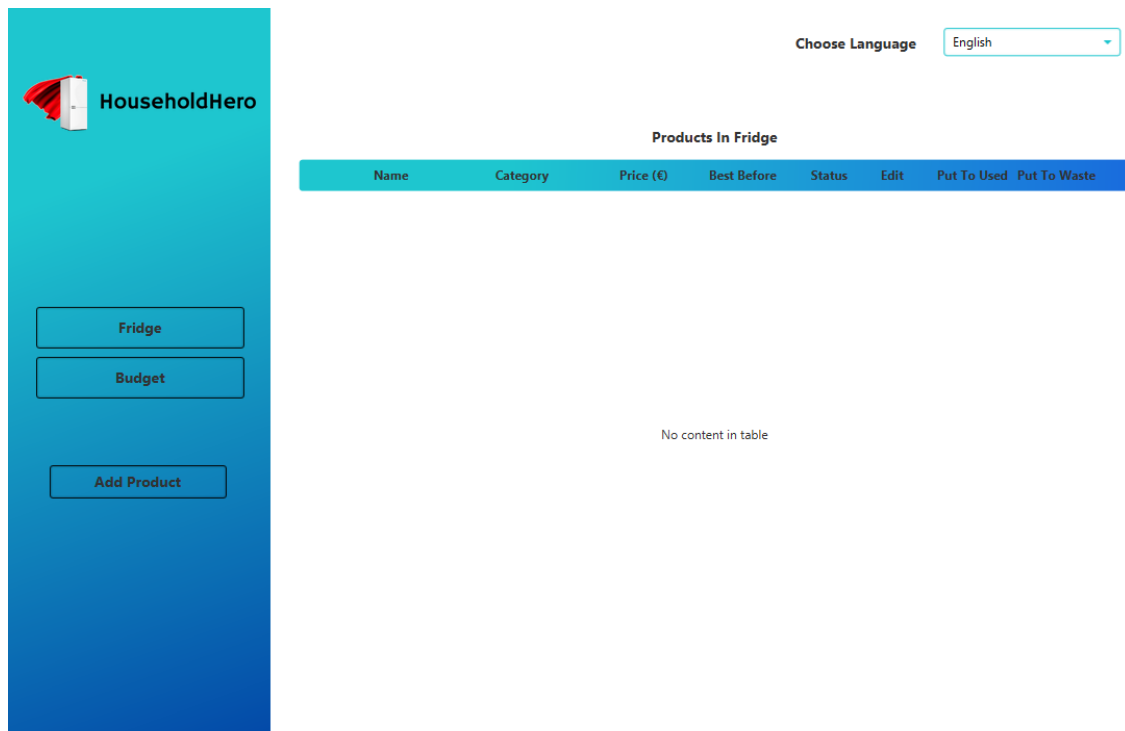


Figure 2: After you have set the budget, you will see the “Fridge” view.

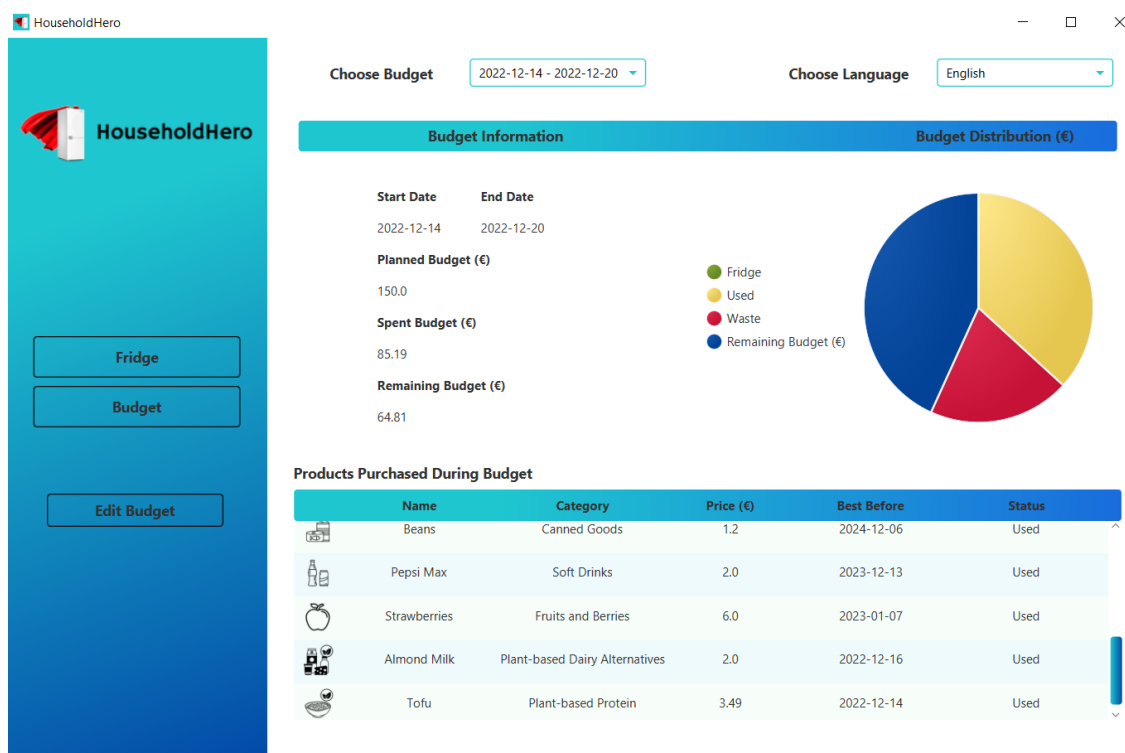


Figure 3: By clicking "Budget", you can see a detailed view of the statistics of your currently chosen budget.

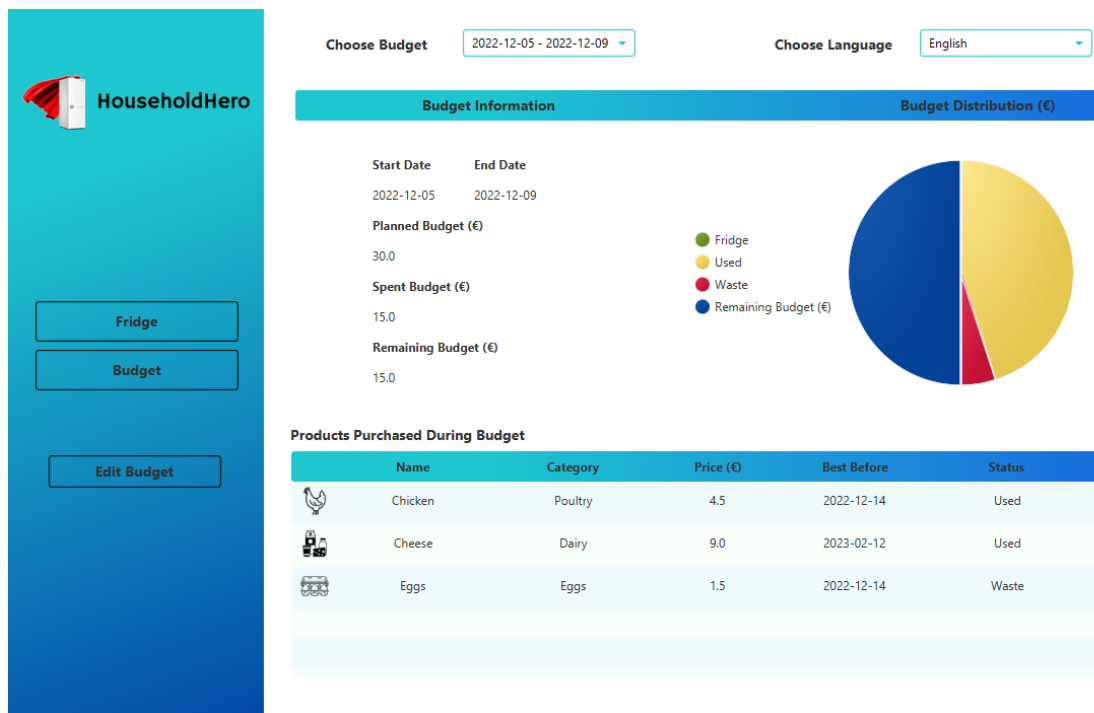
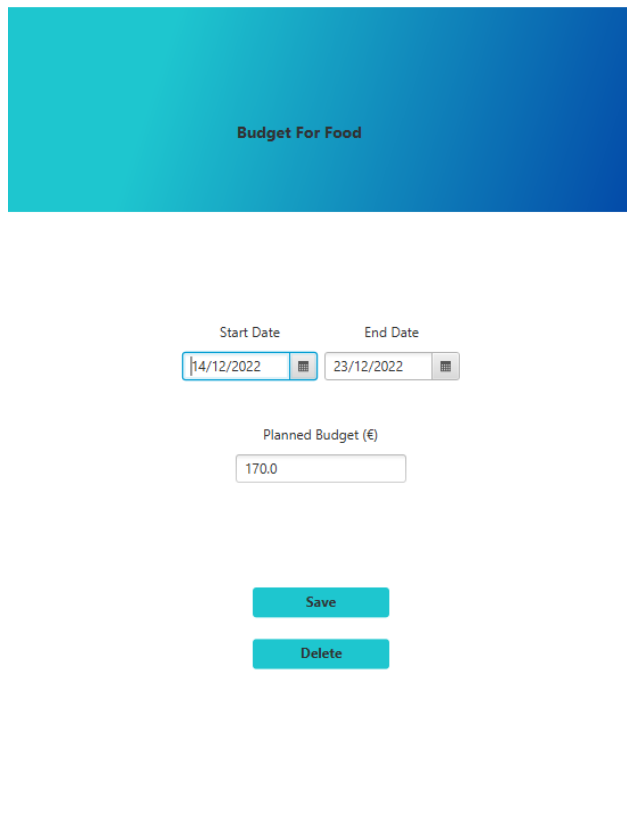


Figure 4: You can also look at previous or upcoming budgets you have created by choosing the date range from the “Choose Budget” dropdown menu at the top of the view.



The image shows a web form titled "Budget For Food" with a blue gradient header. Below the header, there are three input fields: "Start Date" with the value "14/12/2022", "End Date" with the value "23/12/2022", and "Planned Budget (€)" with the value "170.0". Each date field has a small calendar icon to its right. At the bottom of the form, there are two teal buttons: "Save" and "Delete".

Start Date	End Date	Planned Budget (€)
14/12/2022	23/12/2022	170.0

Save

Delete

Figure 5: You can edit the budget by clicking “Edit Budget”, making your changes and then clicking “Save”. You can also delete budgets if necessary.

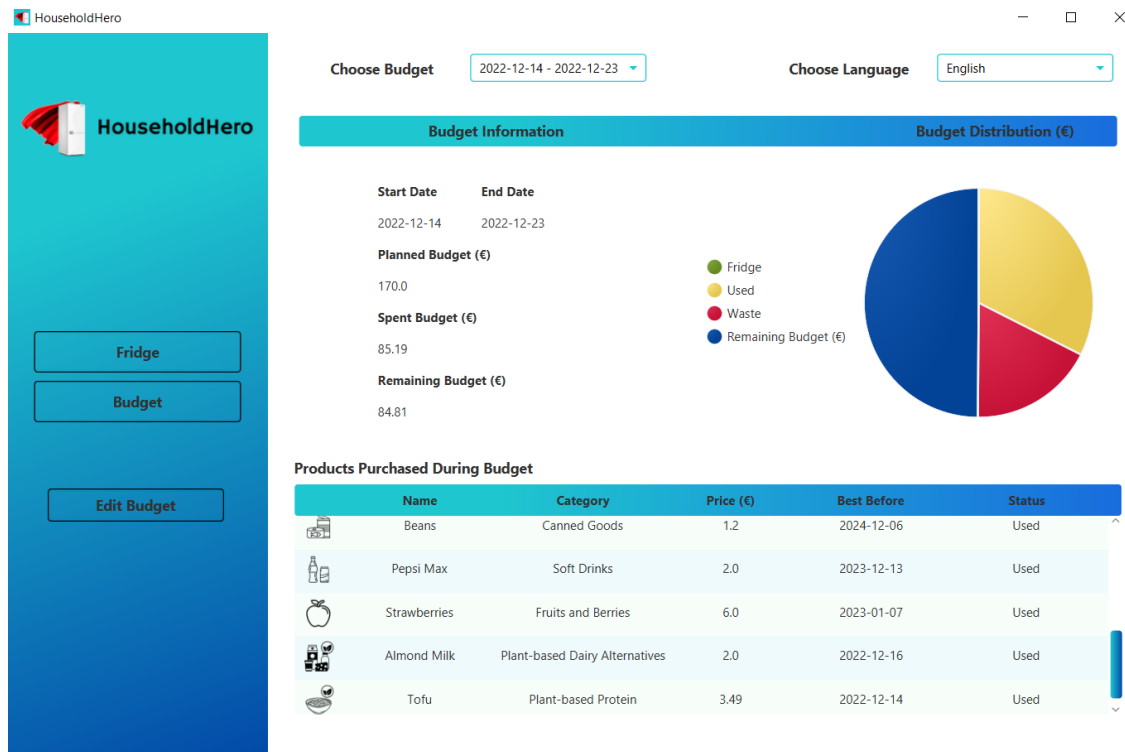
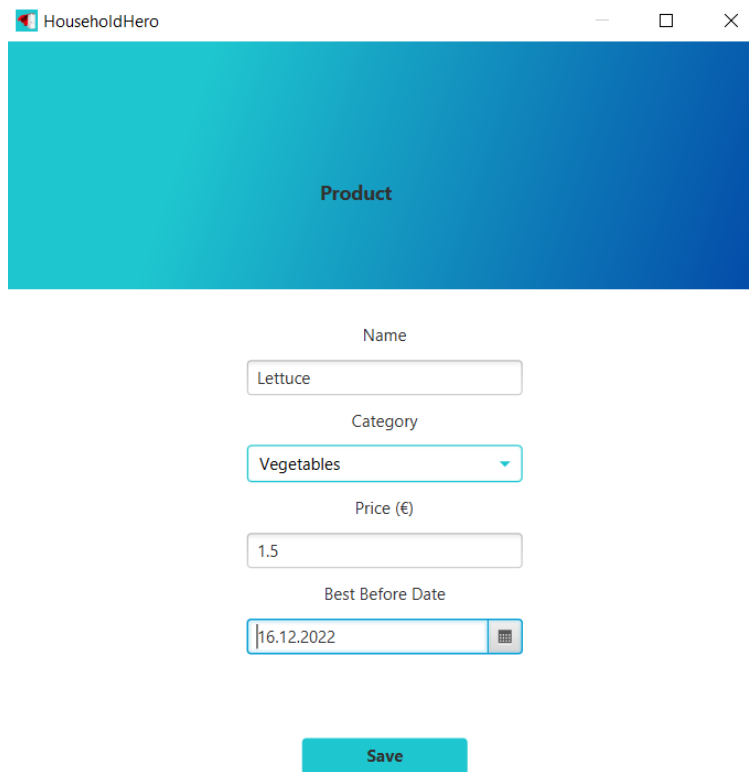


Figure 6: Once you have edited the budget, you can see that it is updated.



## Fridge




The screenshot shows a web application window titled "HouseholdHero". Inside the window, there is a large blue header area with the word "Product" centered in white. Below the header, there is a form with the following fields:

- Name:** A text input field containing the value "Lettuce".
- Category:** A dropdown menu with "Vegetables" selected.
- Price (€):** A text input field containing the value "1.5".
- Best Before Date:** A date input field containing the value "16.12.2022".

At the bottom of the form, there is a teal-colored button labeled "Save".

Figure 7: By clicking "Add Product" you can add a product to your fridge. You must enter the product's name, category, price and best before date before saving the product.


**HouseholdHero**

Choose Language
English

Fridge
Budget
Add Product

### Products In Fridge















































	Name	Category	Price (€)	Best Before	Status	Edit	Put To Used	Put To Waste
	Milk	Dairy	1.0	2022-12-17				
	Fish	Fish	36.0	2022-12-31				
	Lettuce	Vegetables	1.5	2022-12-16				
	Baguette	Bread	2.0	2022-12-14				
	Beans	Canned Goods	1.2	2024-12-06				
	Pepsi Max	Soft Drinks	2.0	2023-12-13				
	Strawberries	Fruits and Berries	6.0	2023-01-07				
	Almond Milk	Plant-based Dairy Alternatives	2.0	2022-12-16				
	Tofu	Plant-based Protein	3.49	2022-12-14				

Figure 8: You can see what products you have in your fridge. Status icons indicate whether the product is still good to go (green square with check mark), about to expire (yellow triangle with exclamation mark) or expired (red circle with cross).

In this view you are also able to click the “Edit” icon to edit the product. Also “Put To Used” and “Put To Waste” icons appear next to the product and can be used. “Put To Used” means you have used the item and it will be removed from the fridge. “Put To Waste” means the item will be removed from the fridge and the price of it will be added on the budget as waste.


**HouseholdHero**

Fridge

Budget

Add Product

Choose Language English

Products In Fridge














































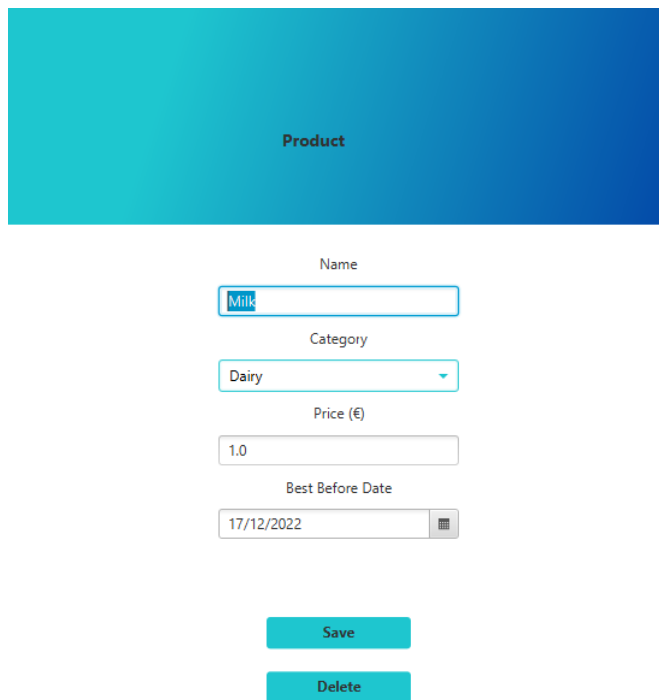
Name ▲	Category	Price (€)	Best Before	Status	Edit	Put To Used	Put To Waste
 Almond Milk	Plant-based Dairy Alternatives	2.0	2022-12-16				
 Baguette	Bread	2.0	2022-12-14				
 Beans	Canned Goods	1.2	2024-12-06				
 Fish	Fish	36.0	2022-12-31				
 Lettuce	Vegetables	1.5	2022-12-16				
 Milk	Dairy	1.0	2022-12-17				
 Pepsi Max	Soft Drinks	2.0	2023-12-13				
 Strawberries	Fruits and Berries	6.0	2023-01-07				
 Tofu	Plant-based Protein	3.49	2022-12-14				

Figure 9: You can sort products alphabetically by their name, category, price or best before date. For example, in the figure items are listed by name.



The image shows a product editing interface. At the top is a blue gradient header with the word "Product" in white. Below the header is a form with five input fields: "Name" (containing "Milk"), "Category" (a dropdown menu with "Dairy" selected), "Price (€)" (containing "1.0"), and "Best Before Date" (containing "17/12/2022" and a calendar icon). At the bottom of the form are two teal buttons: "Save" and "Delete".

Figure 10: You can edit products in multiple ways: by editing the name, category, price or best before date. Once you're done with editing, you can save the product.

You can also delete products from your fridge. When you delete a product, it will be removed from the database as well.

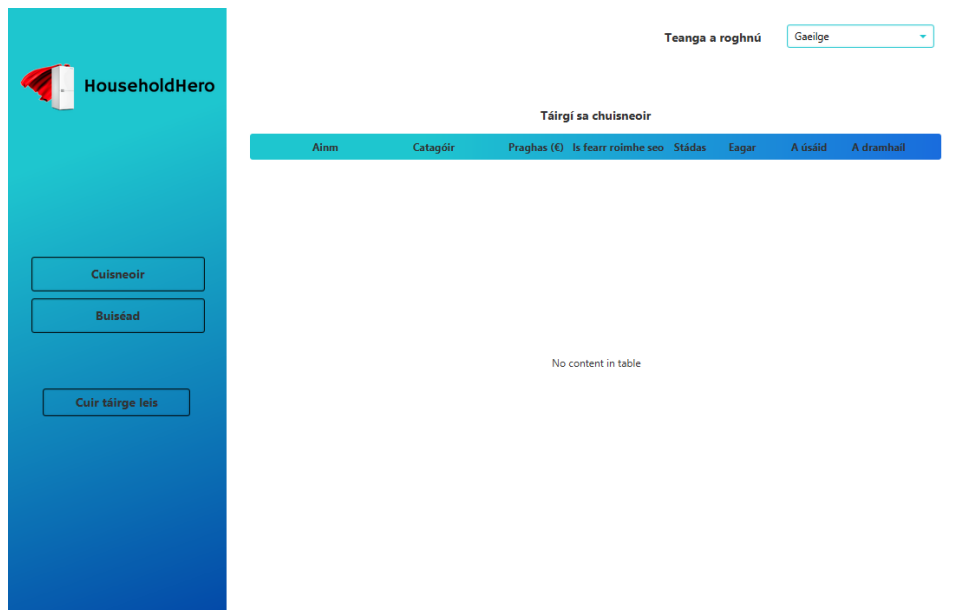


Figure 11: You are also able to change the language of the whole application from the top right corner. Currently supported languages are English and Irish (Gaeilge). In the figure we have the “Fridge” view in Irish.

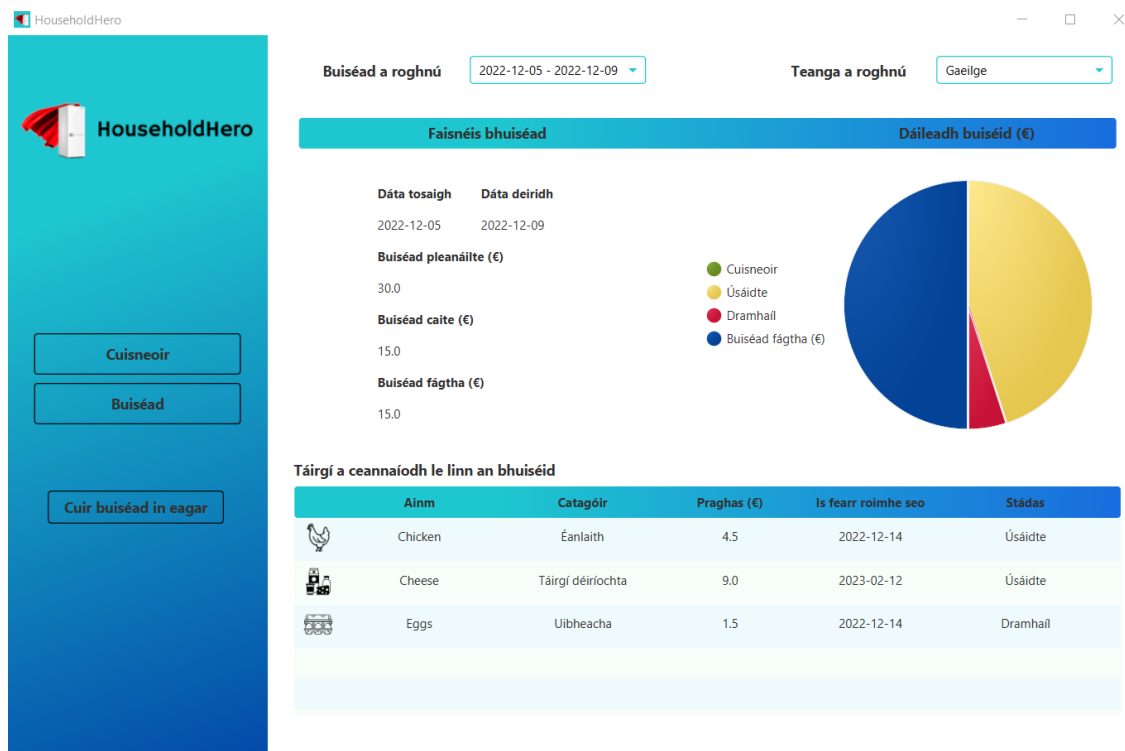


Figure 12: You are also able to change the language of the whole application from the top right corner. In the figure we have the “Budget” view in Irish.