

## Problem statement

Michael is the administrator of a bloc and wants to manage the monthly expenses for each apartment in the bloc. In order to complete this task, Michael needs an application to store, for a certain month, the expenses for each apartment. Each expense will be stored in the application through the following elements: apartment number, amount, type of the expense (the expenses must be grouped in several predefined categories: water, heating, illuminating, gas, others).

## Bloc expenses management – Feature list

F1	Add new expense
F2	Modify expense attributes
F3	Delete certain expense
F4	Filter expenses by certain criteria
F5	Sort expenses by certain criteria

## Iteration plan

<b>I1</b>	<b>F1</b> - Show all entries
	<b>F2</b> - Add new expense.
	<b>F3</b> - Modify expense attributes.
	<b>F4</b> - Delete certain expense.
<b>I2</b>	<b>F5</b> - Filter expenses by certain criteria.
	<b>F6</b> - Sort expenses by certain criteria.

# Iteration 1

## *Running Scenario*

<b>F2</b>	<b>User</b>	<b>Program</b>	<b>Description</b>
A		Select an option	Prompts the user to select an option
B	1		User inputs “1” as selected option
C		Shows all entries in the repository	

<b>F2</b>	<b>User</b>	<b>Program</b>	<b>Description</b>
A		Select an option	Prompts the user to select an option
B	2		User inputs “2” as the selected option
C		Add new expense entry	Prompts the user to input an apartment number
D	19		User inputs the value 19
E		Insert Amount	Prompts the user to input an amount for the expense
F	250		User inputs the value 250
G		Select expense type	Prompts user to select the expense type
H	1		User inputs “1”, selecting “water”
I		Adds new entry to the repository	

<b>F3</b>	<b>User</b>	<b>Program</b>	<b>Description</b>
A		Select an option	Prompts the user to select an option
B	3		User inputs “3” as the selected option
C		Select entry to modify	Prompts the user to input a value
D	3		User inputs the value 3, selecting the 3 <sup>rd</sup> entry
E		Select property to modify	Prompts the user to input “1” or “2”, selecting between the amount and the type
F	1		User inputs the value 1
G		Insert new amount	Prompts the user to insert a new amount value of the selected entry
H	250		User inputs the value 250
I		Modifies the selected entry with the given data	Program checks if entry exists and modifies it

<b>F4</b>	<b>User</b>	<b>Program</b>	<b>Description</b>
A		Select an option	Prompts the user to select an option
B	4		User inputs “4” as the selected option
C		Select entry to delete	Prompts user to input a value
D	4		User inputs the value 4, selecting the 4 <sup>th</sup> entry to delete
E		Deletes entry	Program checks if entry exists and deletes it if so

## Work items/tasks

T1	Show all entries
T2	Add a new entry
T3	Modify the amount of an entry
T4	Modify the type of an entry
T5	Delete an entry

## Iteration 2

### *Running Scenario*

<b>F5</b>	<b>User</b>	<b>Program</b>	<b>Description</b>
A		Select an option	Prompts the user to select an option
B	5		User inputs “5” as the selected option
C		Select filtering criteria	Prompts the user to input a value
D	2		User inputs the value 2, selecting filtering by apartment number
E		Input apartment number	Prompts the user to input a value
F	22		User inputs the value 22
G		Program prints out all entries of apartment 22	

<b>F6</b>	<b>User</b>	<b>Program</b>	<b>Description</b>
A		Select an option	Prompts the user to select an option
B	6		User inputs “6” as the selected option
C		Select criteria to sort by	Prompts the user to input a value
D	2		User inputs the value 2, selecting sorting by type
G		Select ascending or descending	Prompts the user to input a value
H	2		User inputs the value 2, selecting a descending sort
I		Prints out all entries, sorted in a descending manner after type	

## Work items/tasks

T1	Filter entries by greater or equal than amount
T2	Filter entries by lesser than amount
T3	Filter entries by apartment number
T4	Sort entries by amount, ascending
T5	Sort entries by amount, descending
T6	Sort entries by type, ascending
T7	Sort entries by type, descending