

## Dinner Party Example Program

Your friend Monika wants to plan a Dinner Party and she asks you to write the logic for an app to calculate the Cost estimation. She has given you notes on how she calculates the cost estimate:

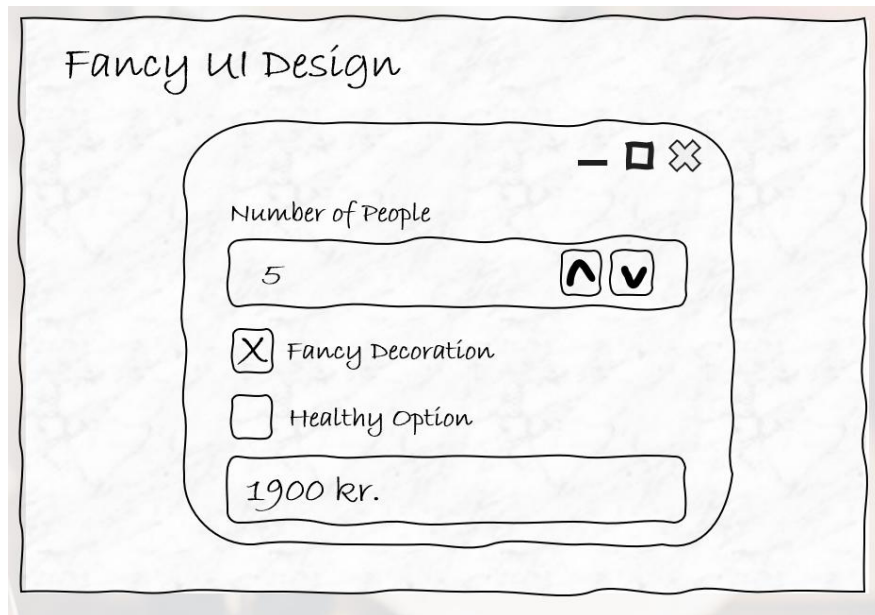
- 180 kr. per Person for food
- Drinks: Either alcoholic or healthy
  - if alcoholic: 145 kr. per Person
  - if healthy: 35 kr. per Person and 5% discount overall
- Decoration
  - Normal: 50 kr. per person + 200 kr. decorating fee
  - Fancy: 100 kr. per person + 300 kr. decorating fee

## Dinner Party GUI

The program works great and after one successfully organized Dinnerparty Monika wants to start an Event Planning Business.

For that she now wants a graphical user interface.

She will design and program the GUI and you will have to revise the logic, so any number of parties can be done.



The following includes the code for the DinnerParty Calculations and the GUI.

### Dinner Party No GUI Code

- DinnerParty - NoGUI.zip

### Dinner Party UI Code

- DinnerParty - GUI.zip

## **Problem? Calculations gone Wrong!**

The following is supposed to be calculated:

A Dinner Party with 10 people, fancy decoration and alcohol

Cost of Food =  $10 * 180 \text{ kr.} = 1800 \text{ kr.}$

Cost of Drinks =  $10 * 145 \text{ kr.} = 1450 \text{ kr.}$

Cost of Decorations =  $(10 * 100 \text{ kr.}) + 300 \text{ kr.} = 1300 \text{ kr.}$

Total Cost = Food + Drinks + Deco =  $1800 + 1450 + 1300 = 4550 \text{ kr.}$

Remove the fancy Decoration

Cost of Decorations =  $(10 * 50 \text{ kr.}) + 200 \text{ kr.} = 700 \text{ kr.}$

Total Cost = Food + Drinks + Deco =  $1800 + 1450 + 700 = 3950 \text{ kr.}$

However when using the AI, sometimes the results are wrong.

Now it is your turn!

Open the files and figure out:

- What happened?
- Why did it happen?
- How can we fix it?
- How can we prevent something similar in the future?

## **Now we can fix it!**

Your Tasks are the following:

1. Set up C# and Avalonia using Visual Code
2. Run the Dinnerparty Example
3. Fix the Calculation Problem by making NumberOfPeople a property!
4. There is another bug with the NumericUpDown Control! Find it and fix it.