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Description

15/06/2022

4. Camping site

Reservations are received at a camping site. A program must be developed in which the start and end date for each reservation can be entered, as well as the number of people and whether there is a car. The payable charges for each reservation period must be calculated and shown. The total income, the average number of days reserved, and the total number of people must also be shown cumulatively.

Lecturer: Rob Loves

Problem Definition

The following prices are charged for the camping site: € 15,- per place. A further € 2.50 for each person and € 3,- for the car. A 25% surcharge applies from 11 July to 15 August. While creating a reservation, all this has to be accounted for.

The user must only have to input for each reservation:

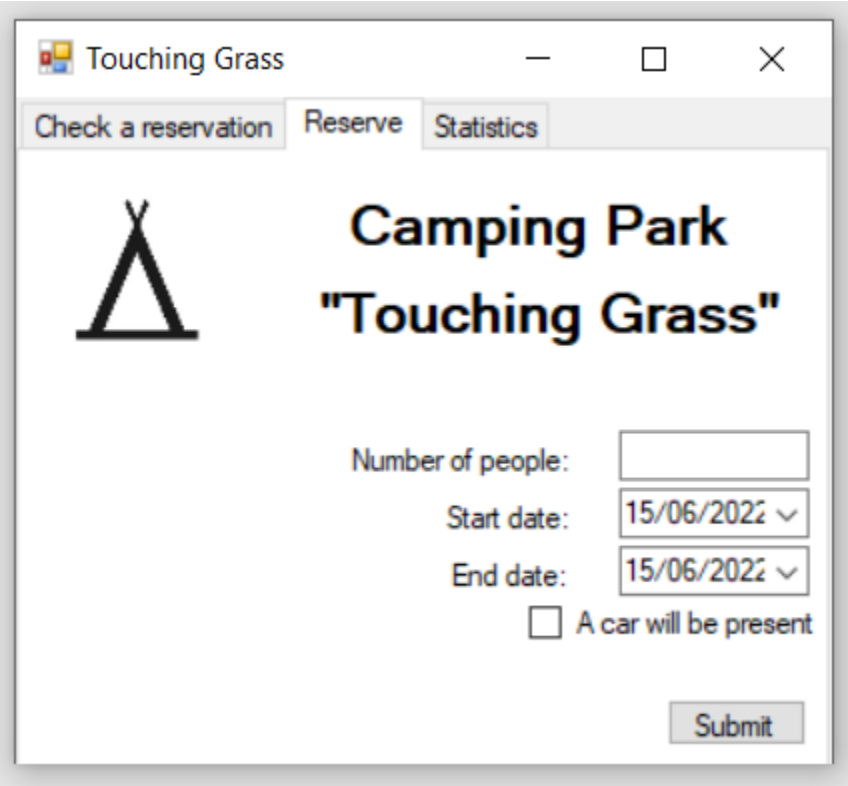
- The number of people arriving in form of a positive int.
- Start date of the reservation in dd/mm/yyyy format.
- End date of the reservation in dd/mm/yyyy format.
- A boolean value of whether the user has a car or not.

The program will have to output:

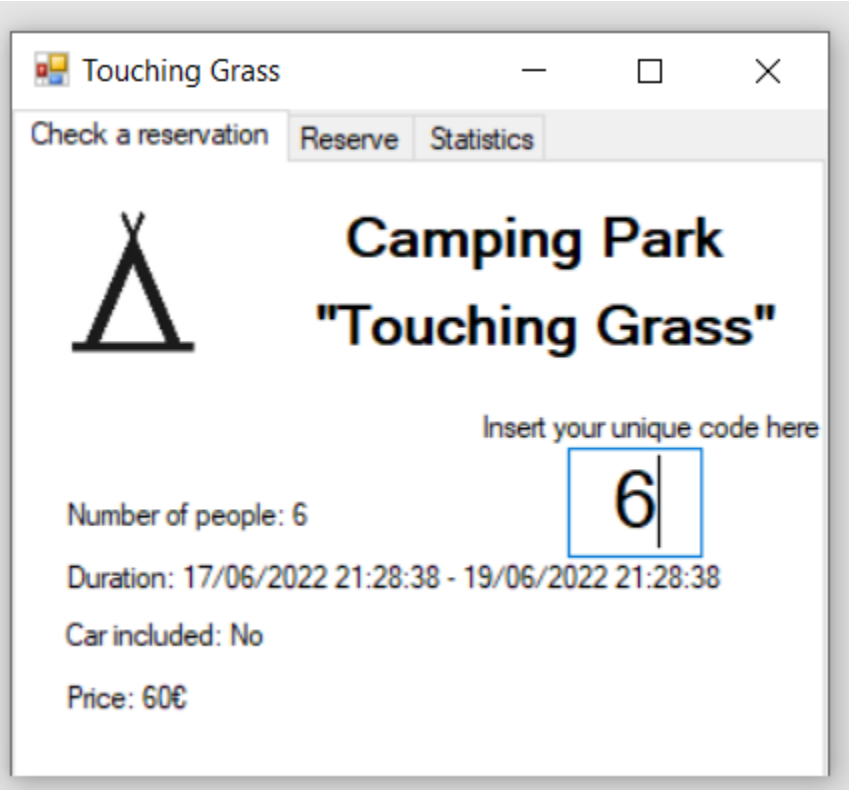
- The total cost of the reservation.
- The total income of all the reservations
- The average amount of days reserved in each reservation.
- The total amount of people present in the reservations.

GUI

- Reserve Page

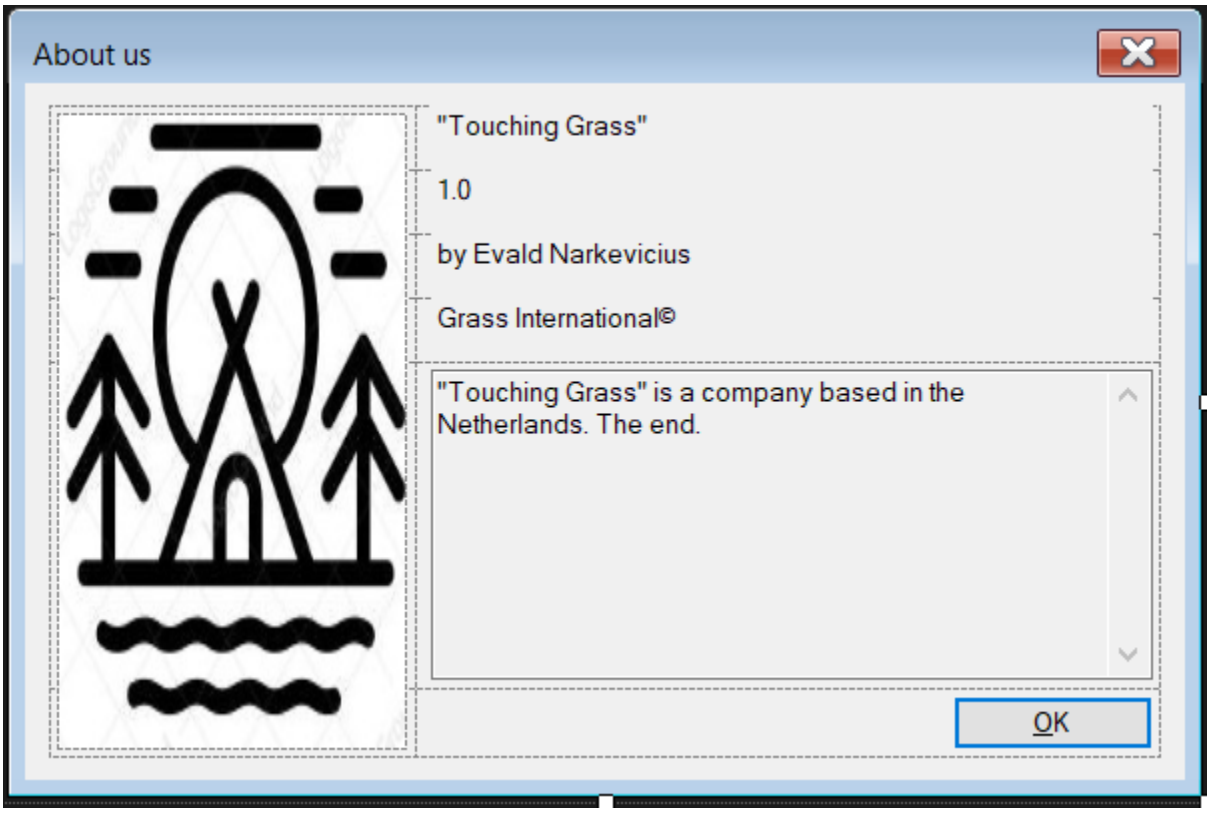


-Check a reservation page



-Statistics Page

-About Page



Input and Output

Input

Case	Type
numberOfPeople	integer
startDate	ddmmyyyy - string
endDate	ddmmyyyy - string
carIncluded	boolean

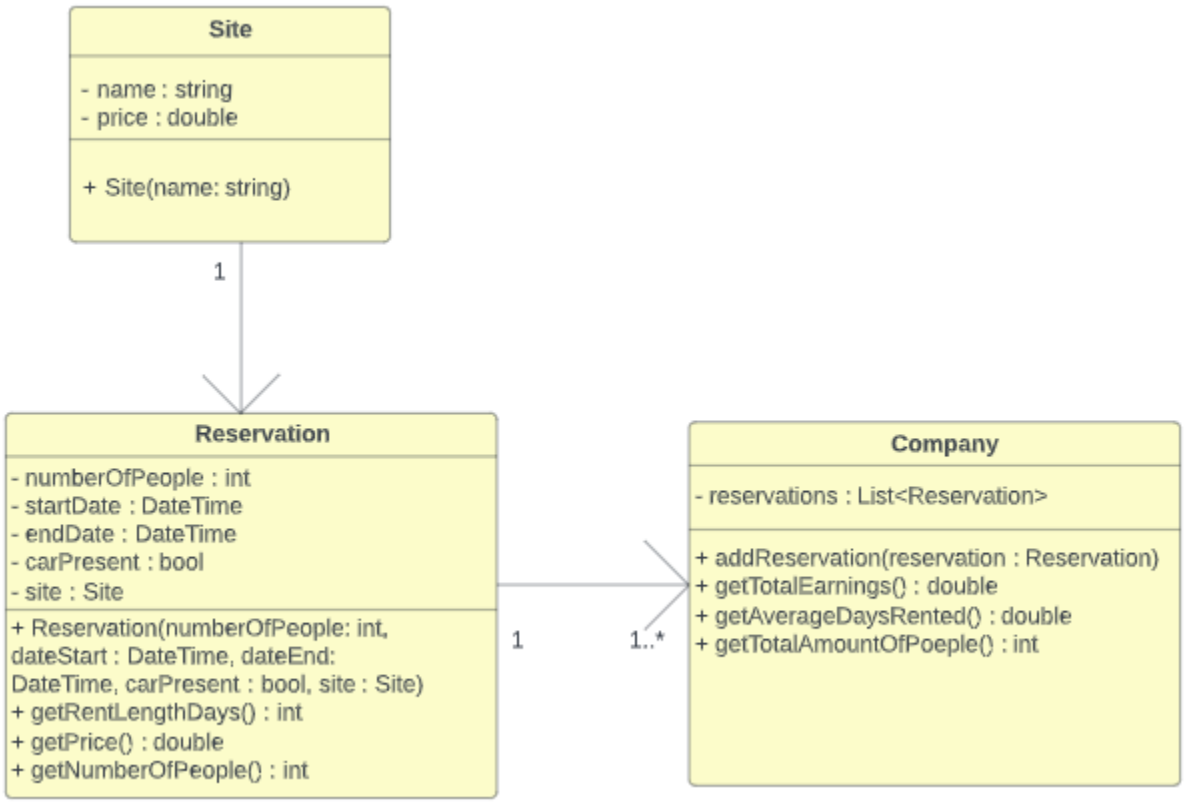
Output

Case	Type
Cost of the reservation	double
Total amount of income	double
Average amount of days reserved in each reservation	double
Total amount of people in reservations	Integer

Remarks

- Input will be checked dynamically.
- Reservation cannot be accessed until every input is correct
- Number of people must be a positive integer, otherwise it will prevent further reservation process
- Incorrect date inputs will prevent further reservation process.
- All reservations are stored in a database

Class diagram



Test Plan

Test Data

Input				Output			
Number of people	Start	End	Car Present	Total Costs	Total Income	Average amount of days	Total amount of people
1	24/06/2022	25/06/2022	true	20.5	20.5	1	1
5	27/06/2022	06/07/2022	false	247.5	268	3	6
0	16/06/2022	17/06/2022	false	-	268	3	6
-1	irrelevant	Irrelevant	Irrelevant	-	268	3	6
irrelevant	18/06/2022	16/06/2022	irrelevant	-	268	3	6