

## Facility bookings management system

In this project I've created a management system. At the start of the system, the user is prompted to start menu, in which it can choose between: showing all reservations, checking specific reservation, creating a new reservation and exit the program. The user must write number that refers to each choice.

If the user chooses to see all reservations, then it reads .txt file and shows: guest's name, reservation number In brackets that is called "ref", check-in date and also check-out date.

If user chooses to check specific reservation, then reference number must be given to go further. Then all details of the reservation are shown and other options are available to choose from, such as: edit reservation's status which gives possibility to change status of the reservation, to paid or not paid; delete reservation which deletes reservation. It deletes reservation from data (list) and then overwrite text file with updated data by the function; and also return which goes back to the main menu.

If user chooses to create reservation, then it must fill all details, such as: guest's name, check-in date, check-out date, phone, email, number of adults, number of kids between 7 and 15 years old, number of kids under 7 years old, the type of a stay and amount of this type. Then it creates reservation number by random form 0 to 200 and saves all information into list and afterwards all data are saved into text file to new lines in the file if there are reservations already. The program ends by clicking "exit system" option in main menu.

Program Files:

- main\_project.py (main code of project, run file)
- functions.py (all functions are there, to organize code easier)
- reservations.txt (file where all data (reservations) are kept)

### Example use of the project requirements:

- Comparisons and logical operations:

The code uses comparison to check if the user input (ref number) is in data, also uses comparison to check if the user input is in date format that is given.

- If statements (with elif and else):

For instance, checks if adults number is greater than 0 but it has to be greater than 1 also because it is not possible to make a reservation without at least one adult person.

- Lists and at least 3 different list manipulations (ex: append, pop, index, indexing, etc):

I use list manipulation in DataCheck() to add data from file to actual list in program. I use pop() function to delete reservation and function index() is used to check which index in data has specific reference number to show reservation that is related to reservation number.

- For and while loops:

I use for loops to move around file and get values from it like in CheckReservation() in functions.py. But while loops are for continuously asking for input until conditions are met.

- Calls for input() and print() functions:

The function input() is used to get guest's information in creating reservation process. Function print() is used to print options.

- Try statements:

For instance, I use it to try getting date from input and if it is not possible then the program works but it gives feedback what you should type.

- Typecasting between different types:

I use it to convert list to strings to be able to write list of data into the file, because .txt does not accept lists.

- At least 2 well-designed functions:

I use CreateReservation() which needs arguments to execute, and it saves reservation details to the text file "reservations.txt". Also created CheckReservation() which needs index and then can print all information of reservation.

- Write and read information from files:

The function DataCheck() reads lines from file "reservations.txt", then evaluate them to previous type and then adds to list named data which is used then to edit and show information easier. And function DataSave() is used to save information, so it opens file and overwrite content. I use it to edit status of reservation and then edited data is saved.

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### **Authorship declaration:**

I declare that the work submitted here is from my authorship only. I haven't used any generative AI to help with any code/text included in my work. I have given credit for the help I had conceptualizing my project. My work respects the university and course code of conduct.