

Hotel Simulator - Team 3

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Files in Repository:

README.pdf

This current document you are reading. Contains a summary/purpose of our project.

hotel_sim.py

Our main Python program. Our hotel simulator booking program allows users to filter and select hotels that are Hotel Transylvania-themed. Our hotel simulator booking program also offers a pie chart of spending methods if the user has extra money within their budget that is not spent on the hotel. Our program prompts the user for user input for the following:

- Name (of user)
- Number of guests
- Number of nights
- Maximum budget amount
- Preferred location
 - Options of locations include:
 - ROM, SVK, USA, or OCEAN
- Month of visit

Users have the option to filter the hotels by the following criteria:

- Location
- Budget
- Date
- Activity
 - Option of activities include:
 - Archery, Dolphin Riding, Ballroom Dancing, Potion Mixing, and Swimming
- Our personalized perspective

hotels.json

JSON file containing information on hotels from the fictional movie series Hotel Transylvania. It contains a main dictionary named "Places" that contains all the places we have used as hotels. Inside that "places" the dictionary contains other dictionaries for various hotels. These sub-dictionaries contain information about the hotel's details. Details include:

- place_name
- location (with a sub-dictionary)

- prices (with a sub-dictionary)
- amenities
- rating
- dates

The file gets passed into the command line when running `hotel_sim.py` and instantiated in the `Hotel` class.

activities.csv

Csv file containing a table. The table contains activities as the column header and hotels as row headers. The cells of the CSV file are boolean values (0 = false or 1 = true). True indicates that the hotel does provide that activity at their place of stay.

The file gets passed into the command line when running `hotel_sim.py` and instantiated in the `Hotel` class.

pie_chart.py

A file that allows the `spend_budget` function to take the user's input leftover budget and populate a pie chart with possible vacation activities by calling the `Hotel` object with the `hotels.json` and `activities.csv` file along with `spend_budget` and `user_data`.

Running the Main Program (`hotel_sim.py`)

In the command line, we ran the code by typing “`python3 hotel_sim.py hotels.json activities.csv`”. It then gives the user a series of questions to answer (see `hotel_sim.py` above for a list of sample questions).

Running `pie_chart.py`

No command line arguments, just run the script.

Attribution/Members' Contributions

Method/function	Primary author	Techniques demonstrated
<code>read_file</code>	Sathya	<code>json.load()</code>
<code>sanitize_user_input</code>	Sathya	regular expression
<code>check_date</code>	Kassia	list comprehension
<code>spend_budget</code>	Kassia	visualizing data with pyplot
<code>check_budget</code>	Jeni	f string

check_activity	Jeni	pandas
best_hotel_selector	Samira	key function
__getitem__	Samira	magic method

Annotated Bibliography

“Places.” Wikipedia, Wikimedia Foundation,
<https://hoteltransylvania.fandom.com/wiki/Category:Places>

This is a link to the Fandom Wiki page of the Hotel Transylvania movie series. We used this page and its linked pages to develop a list of places to use as hotel/night stay locations for our JSON file. We took names and locations of each of the main locations from the movie series.