

Intro to Python – Lesson 32

To practice data files, complete the following exercise for a local hotel. The have just added a conference center to the hotel and need a program that will allow them to store and manage conference bookings in the future.

Create a defaults file (Defaults.dat) which contains the Next Conference Number (1000), the HST Rate (.15), the cost for a small conference room for up to 30 people per day (180.00), the cost of a medium conference room for up to 100 people per day (340.00), the cost of a large conference room up to 250 people per day (530.00). Also include the cost per person for breakfast (12.95), the cost of lunch per person (21.95), the cost per person for supper (34.95), and the cost per person for coffee break (7.95).

The program will start by reading the values from the Defaults.dat file. Use a few print statements to make sure the values are read accurately.

For each conference booking – end the program when the user types the word END for the client's name – enter the Client name, the conference title, the start date of the conference, the number of days for the conference, the maximum number of attendees, and the number of each of the meal options including breakfasts, lunches, suppers, and coffee breaks. As you enter data realize a 3-day conference the organizers may only include 2 coffee breaks, 1 breakfast and 1 dinner. No validations are required – just be careful as you input the values that they are valid.

Calculate the estimated conference cost based on the size of the room and the number of days, the cost food based on the number of each meal option and the number of attendees. Taxes are based on the current HST Rate, and the conference total are all costs added together. Also calculate the cost per attendee by dividing the conference total by the maximum number of attendees – this will help the organizers set a conference fee.

Display all input and calculated values in a nicely formatted receipt. Show the breakdown of all costs and not just a single value for the total.

After the calculations are displayed, write the input values and the conference total only to a data file called Conference.dat using a comma separated values approach. Display a message for the user indicating the data has been saved and add 1 to the conference number.

At the end of the loop, or inside the loop after all processing is complete, write the updated default values back to the Defaults.dat file.

As the user exits the program by entering END for the client's name, display a message for the user thanking them for using the program and wishing them a good day.

See you at 1.