

Question 1 Single Item Processing

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You have been asked to create a Booking System for the CIT Christmas Pantomime. Write a program that takes a single booking for a group of people. The program should ask for the person's name, the type of seat required and the number of tickets required for the group.

The following pricing scheme is in operation for the different types of seats:

Ground Floor	10.50
Balcony	12.80
Box:	15:00

It the user books more than 10 tickets they are given one ticket for free.
The user is also given a user to specify if a parking space is required.

Sample Run

```
Enter Name:      Harold Grange
Enter Seating Location: (1.Ground Floor 2.Balcony 3.Box): 1
Will you need a car parking space (y/n): y
Number tickets required: 11
```

Thank you for booking, here are your booking details:

```
CIT Pantomime Booking Details for Harold Grange
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Ground Floor, 11 People, €105.00 (Parking Required)
```

Question 2 Processing Multiple Items

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Modify the program to accept details for multiple bookings.
Use **any method** you wish for multiple inputs. The sample run below asks how many bookings there are, but you can choose an alternative method.

There are currently only 3 parking spaces that may be reserved. Once the parking spaces are used up the option to book a parking space should no longer be displayed to the user.

A summary of all bookings is saved to a file "summary.txt". This contains a list of the names, seat locations and numbers in each group booking.

It also shows the total no. of people booked in.

Sample run:

How many bookings are there? **2**

CIT Pantomime Booking

Enter a name for this booking #1: **Ger Murphy**

Enter seating location (1.Ground Floor 2.Balcony 3.Box): **1**

Will you need a car parking space (y/n): **y**

Number of people in your group: **3**

Thank you for booking, here are your booking details:

CIT Pantomime Booking Details for Ger Murphy

Ground Floor, 3 People, €41.50. (Parking Required)

CIT Pantomime Booking

Enter a name for this Booking #2: **Greg Kane**

Enter seating location: (1.Ground Floor 2.Balcony 3.Box): **3**

Will you need a car parking space (y/n): **n**

Number of people in your group: **2**

Thank you for booking, here are your booking details:

CIT Pantomime Booking Details for Greg Kane

Box, 2 People, €71.50

For this Sample Run the following data should be saved in summary.txt

Summary of Bookings

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Ger Murphy	Ground Floor	3
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Greg Kane	Box	2
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Total	no. of People:	5
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Question 3 Processing Data

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- Add the code required to keep track of the number of people who have booked each seat type. This should be shown on the screen after all bookings are completed.
- Add code so that you can identify the most expensive booking. The person who made the booking will receive a voucher for 10% of the value of that booking. This is printed on the screen after all bookings are complete.

The sample summary.txt is given based on the sample run in Question 2 above:

Location of Booked Seats.

Ground Floor 3

Balcony 0

Box 2

Greg Kane to be given voucher for €7.15

Question 4 Data Validation

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Modify the code to carry out the following input data validation:

- Ensure that only letters are accepted for the name of the booking and that the name is at least three characters long
- Ensure that a valid option is chosen for the seat type ie. an integer is inputted in the range 1 to 3 inclusive