

Problem Statement

3 shows are running in a movie theatre. You are given available seats for all shows. Seats are categorized as Platinum, Gold, and Silver. Show all available seats to customers before letting them select seats. A, B & C rows are categorized into Platinum, Gold, and Silver and cost Rs. 320, Rs. 280 & Rs. 240 respectively.

Customers who want to book the tickets first ask for the show no. and then check whether seats are available or not if available then book their seats else ask them to enter seats again.

Before each booking print all available seats and after booking show the total cost including taxes. All bookings would be charged a service tax of 14% along with Swachh Bharat Cess and Krishi Kalyan Cess at a rate of 0.5% each.

The problem should work recursively and once we are done booking all the tickets, finally, print the total revenue generated along with the above taxes payable by the theatre owner in the following format:

Revenue: Rs. XXXX

Service Tax: Rs. XXXX

Swachh Bharat Cess: Rs. XXXX Krishi Kalyan Cess: Rs. XXXX

Seating arrangement:

Show 1 Running in Audi 1:

All Seats:

A1 A2 A3 A4 A5 A6 A7 A8 A9

B1 B2 B3 B4 B5 B6

C2 C3 C4 C5 C6 C7

Show 2 Running in Audi 2:

All Seats:

A1 A2 A3 A4 A5 A6 A7

B2 B3 B4 B5 B6

C1 C2 C3 C4 C5 C6 C7

Show 3 Running in Audi 3:

All Seats:

A1 A2 A3 A4 A5 A6 A7

B1 B2 B3 B4 B5 B6 B7 B8

C1 C2 C3 C4 C5 C6 C7 C8 C9

Input:

Enter Show no: 1

Enter seats: B1, B4

Print: Successfully Booked - Show 1

Subtotal: Rs. 560

Service Tax @14%: Rs. 78.40

Swachh Bharat Cess @0.5%: Rs. 2.80

Krishi Kalyan Cess @0.5%: Rs. 2.80

Total: Rs. 644

Would you like to continue (Yes/No): Yes

Input:

Enter Show no: 1

Enter seats: B1, B3

Print: B1 Not available, Please select different seats

Would you like to continue (Yes/No): Yes

Input:

Enter Show no: 2

Enter seats: A1, A2, A3

Print: Successfully Booked - Show 2

Subtotal: Rs. 960

Service Tax @14%: Rs. 134.40

Swachh Bharat Cess @0.5%: Rs. 4.80

Krishi Kalyan Cess @0.5%: Rs. 4.80

Total: Rs. 1104

Would you like to continue (Yes/No): No

Total Sales:

Revenue: Rs. 1520

Service Tax: Rs. 212.80

Swachh Bharat Cess: Rs. 7.60

Krishi Kalyan Cess: Rs. 7.60