

Guidelines/Best practices

At TechVerito, we strive to build high-quality software that works correctly as per the business requirement, which is readable and maintainable, has safety nets to safeguard the quality and handles errors gracefully without breaking the system.

We are looking for people who can write code that has flexibility built-in, by following the principles of object orientation and clean code.

Some important guidelines to write good code.

- Is object behaviour/responsibility separate from its state and is the state encapsulated?
- Is your code [simple](#) enough to understand and maintain?
- Is your code [DRY](#) enough?
- Is your code clean enough? More info at <https://dzone.com/articles/clean-code-robert-c-martins-way>
- Have you unit tested all of the functionality?
- Have you followed test-driven development? If you have not followed TDD, we recommend you [read](#) about it and attempt it with your solution. [Here](#) is the nice introduction to TDD)

Some Instructions/Guidelines

1. Develop a simple frontend application.
2. Write simple enough code which is easy to understand.
3. Avoid writing too many lines of production code.
4. Include test cases.
5. Include all the dependencies with your solution so that we can open it easily in IDE and review/execute it with minimal efforts :)
6. Please do not attach the **node_modules** folder. Sending project directory excluding **node_modules** is more than enough.

Please create your project/solution in such a way that we should be able to run it in IDE out of the box without any efforts.

Problem Statement

(Average time to write a solution 3-6 hrs)

3 shows are running in a movie theatre. You are given available seats of 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 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.

Finally, print total revenue generated along with above taxes payable by 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

Please create your project/solution in such a way that we should be able to run it in IDE out of the box without any efforts.

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

Input:

Enter Show no: 1

Enter seats: B1, B3

Print: B1 Not available, Please select different seats

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

Total Sales:

Revenue: Rs. 1520

Service Tax: Rs. 212.80

Swachh Bharat Cess: Rs. 7.60

Krishi Kalyan Cess: Rs. 7.60

You will be given 3 days to write a solution and once you complete the solution then you can upload on google drive and share the link with us. Please DO NOT post your solution on Github or any other place accessible to externals.

Please do not hesitate to reach out to us if you have any questions about any of the points :)

Please create your project/solution in such a way that we should be able to run it in IDE out of the box without any efforts.