

### 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.

**It is important to note that we are not looking for a GUI** and we will not assess you on the capabilities around code required to do the I/O. But do note that it is very important to keep the presentation concerns separate from the domain or business logic. So while building the solution, the focus should be on the overall design of the system.

Before you submit your code, please make sure to go through the following points and ensure that your code focuses on the attributes we are looking for which are as follows:

- Is object behavior/responsibility distinguished 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>

### Important Notes

1. **Do not develop a web application or web service.**
2. **We expect you to develop a simple console application that works in memory.**  
Although try to design the application in such a way that you should be able to incorporate the database easily later without any impact on other parts of the system.
3. Do not use any framework while developing the solution except testing frameworks.
4. You will get extra brownie points if you use packaging or build tools like Maven/Gradle. In case you are not familiar with build tools, please package all the dependencies with your project so that we can build/run the solution with minimal effort. **(This point is only valid if you are writing the code in Java rest can ignore this point)**

### Problem Statement

(Average time to write a solution 2-3 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

**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 can upload it 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 :)***