CSE471 Fall 2023
Assignment 02
Total Marks: 10
Deadline: 5th December, 2023

Suppose you are developing an online ticket booking system for TourAdvisor which will contain several components. Inside the main system, there are seven components which are described below-

Flight Database Component consists of all relevant information about arrival time, departure time, ticket type, source, destination and so on. It provides an interface named ticketDetails which is required by the Ticket Booking Component. However, it requires the information of seat status which is provided by the Seat Component.

Ticket Booking Component receives ticket information from the Flight Database component and handles ticket bookings. It provides an interface named bookingDetails which is required by the Cart Component. Seat Component handles the seat status of the flights. Provides an interface named currentSeatStatus which is required by the Flight Database component. Ticket Fare Component handles ticket pricing and provides an interface named ticketPrice to the Cart component.

Invoice component prepares invoices for the customers. In order to create the invoice it requires bill details from the Cart component. Cart Component provides an interface called readCustomerBill which is required by the Invoice component. Finally, the Special Offer Component handles discounts on tickets, special holiday offers. Provides a discountedValue interface which is required by the Invoice component.

There are two components which have delegation connector with the website main component:

Payment Gateway handles final payments of customers. Receives information from cartStatus and customerInvoice interfaces which are provided by the Cart and Invoice components respectively.

Tax Component calculates tax amount on ticket pricing. It provides an interface named taxAmount which is needed by the Payment Gateway component.

Now **design** a component diagram based on the above scenario. [CO2]