

Tutorial 2 - Offline Train Ticketing System

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A total of 4 pages, (Home Page, Create Booking Page, Cancel Booking Page, Display Booking List Page) is created to assist the front desk of a Train ticketing company.

The home page simply displays the number of seats available.

The Create Booking page displays a form that takes in name and phone number as input with a 60 second timer that keeps the user session in check. It also notifies the user if the booking creation was successful or was a failed creation.

The Cancel Booking page displays the list of booking that allows the user to cancel any booking from the table.

The display Booking page simply displays the list of existing bookings without any action.

HTML

Within the html file, the standard of language is english "en" with utf-8 format. External libraries such as, bootstrap@4.0.0, jquery@3.2.1, and popper are imported from the dist folder as javascript. This will greatly ease the development experience. The title is also changed to "Train Ticketing System" to better help with the browser tab management when multiple tabs are opened.

A static navigation bar is created with a default child list element as loading to provide better user experience while jquery populates the navigation bar with the pages defined.

A div tag with id #app-section is also created and will be used to display different page content using jquery

JS

Global constants are defined at the top of the file to allow better management of certain application states such as maximum number of reservations, booking session expiration. Etc.

A section of effects functions is also created to help manage the effects of each different page such as Home Page, Create Booking Page, Cancel Booking Page, and Display Booking Page. This allows future developers to better modify by page without having to worry about other pages. The onPageChange function manages the procedure of removing elements within the #app-section and executes the next page function, which will then populate the #app-section with the new page element content.

Moreover , a section of UI Component creation functions manages each main component within each page, for example the Navbar function, create booking form function, create-cancel booking-table-function, and create display booking function, create booking timer, etc. This will make it easier to further modify the components if needed in future

A section of reusable booking and user session functions are created to deal with CRUD operations of the booking list state and also user session state.

Notice that the cookie functions are compatible with both file and http protocols. If its a file protocol, local storage is preferably used, vice versa.

CSS

Section class is styled to ensure all pages have the same structure of style, and input container class is to control the Create Booking From

Justification for additional CSS, JS and MAP files

This is to help provide beautiful UI components, great development speed, and also ease the development effort for future changes or new features.