Task: Develop an Advanced Hotel Booking Search and Filter Interface

Objective:
Create an advanced **Search and Filter Interface** for a hotel booking website that not only allows users to search for hotels based on various criteria but also incorporates complex features for a richer user experience.

Task Requirements:

1. **Advanced Search Functionality**:
   o Create a search bar for users to input their destination, which utilizes an **autocomplete feature** to suggest popular destinations as they type.
   o Include a **date range picker** that allows users to select check-in and check-out dates with a visual calendar interface.
   o Allow users to specify the number of guests and rooms using a dynamic counter, ensuring that the interface updates to reflect availability.
2. **Dynamic Filter Options**:
   o Implement multiple filter options for refining search results:
      ▪ **Price Range**: Include a dual slider that lets users set minimum and maximum price filters.
      ▪ **Star Rating**: Use a multi-select dropdown with star icons that allows users to select ratings (1 to 5 stars).
      ▪ **Amenities**: Create a collapsible section with checkboxes for various amenities (e.g., Wi-Fi, Pool, Breakfast, Parking), allowing users to expand or collapse the options.
      ▪ **Hotel Type**: Dropdown menu to filter by types such as Boutique, Resort, Budget, etc.
      ▪ **Distance from Landmark**: Allow users to specify a distance from a key landmark (e.g., city center) using a range slider.
3. **Interactive Results Display**:
   o Display the search results in a visually appealing grid layout with hotel cards.
   o Each hotel card should include:
      ▪ High-quality hotel image
      ▪ Hotel name and rating
      ▪ Price per night with a tooltip showing discounts (if applicable)
      ▪ Brief description with a maximum character limit
      ▪ **Availability**: Show available rooms for selected dates.
      ▪ A **Book Now** button that triggers an AJAX request to fetch real-time pricing and availability.
4. **Advanced Interactive Elements**:
   o Implement hover effects on hotel cards that reveal additional information such as guest reviews or special offers.
   o Clicking the "Book Now" button should open a modal window with detailed information about the hotel, including:
      ▪ Larger images in a carousel format.
      ▪ Detailed descriptions and amenities.
      ▪ A booking form with dynamic pricing based on selected dates and number of guests.
      ▪ Show a summary of cancellation policies.
5. **Responsive and Adaptive Design**:

- o Ensure that the interface is fully responsive, adapting to different screen sizes and orientations.
- o Implement a mobile-first design approach to ensure usability on smaller devices.

6. **Technical Stack**:
   - o Frontend: HTML5, CSS3, JavaScript/TypeScript, and optionally, a front-end framework like Angular or React.
   - o Consider using a CSS framework like Bootstrap or Tailwind CSS for styling and responsiveness.
   - o Use AJAX or Fetch API for dynamic data loading without refreshing the page.

7. **Bonus (Optional)**:
   - o Integrate a **map view** that allows users to see hotel locations relative to points of interest using a mapping library like Leaflet or Google Maps.
   - o Implement a **user authentication** system, allowing users to save their search preferences and favorite hotels.

Submission:

- Submit the project as a GitHub repository or a ZIP file containing the source code.
- Include detailed comments in your code and a README file explaining how to set up and run the project.

Deadline:

The task must be completed by **25th October 2024**.