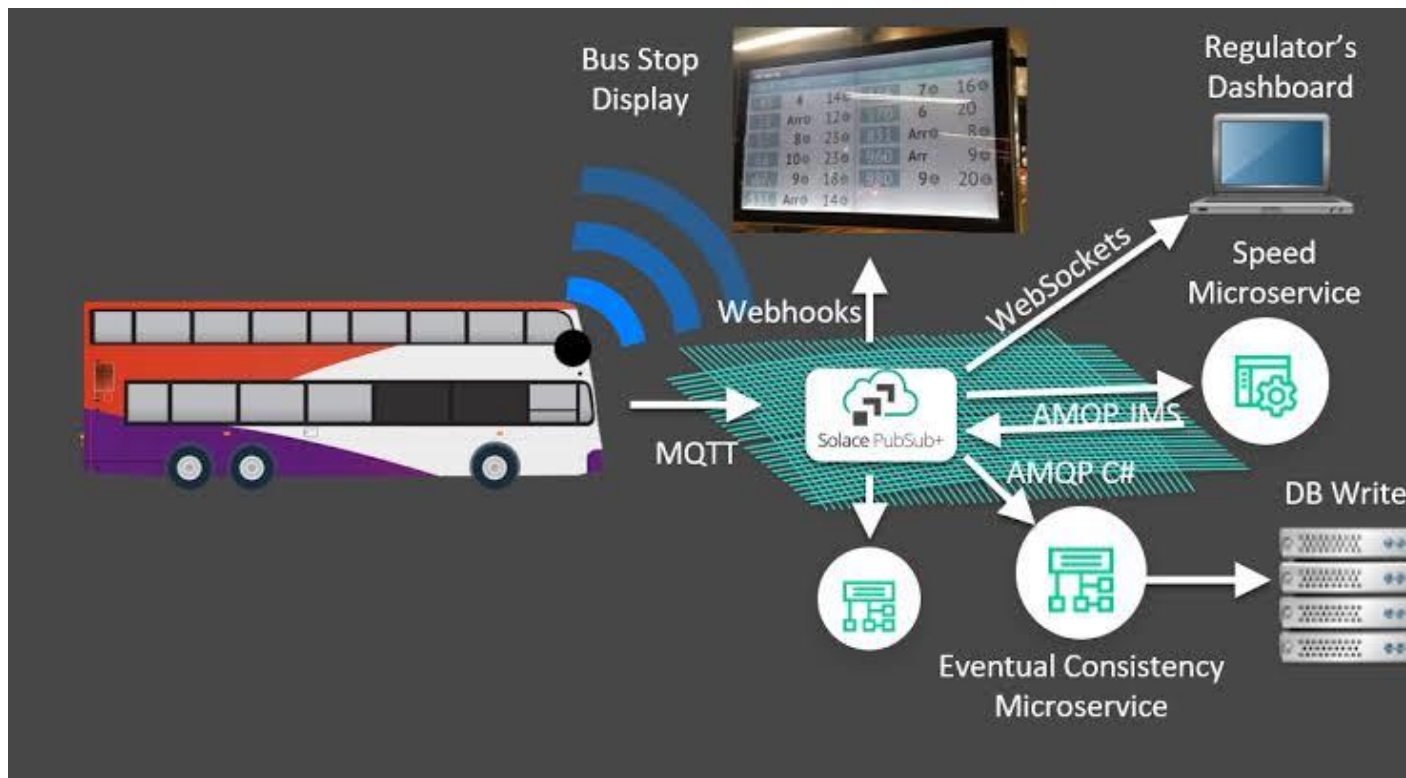# INTERNET OF THINGS_PHASE 4

Requirement For Web Development :

1. Data Collection: Gather data on routes, schedules, and real-time information for public transportation in your target area. This data may come from government sources, transportation agencies, or third-party APIs.

2. User Interface: Design a user-friendly web interface that allows users to search for routes, view schedules, and access real-time updates. Make sure it's responsive and accessible on various devices.

3. Route Planning: Implement algorithms to calculate and display optimal routes based on user preferences, such as speed, cost, or convenience. Consider using graph theory and optimization techniques.

4. Real-Time Updates: Integrate real-time data sources to provide users with accurate information about bus or train locations, delays, and arrival times.

5. Fare Information: Display fare details, payment options, and ticket purchasing functionality if necessary.

6. Accessibility: Ensure that the web application is accessible to people with disabilities, complying with accessibility standards like WCAG.

7. Map Integration: Integrate mapping services to display routes and provide users with a visual representation of their journey.

8. User Accounts: Implement user registration and account management features for personalized experiences, such as saving favorite routes.

9. Feedback and Support: Offer channels for user feedback and customer support to address concerns and improve the service.

10. Testing: Rigorously test the application to identify and resolve bugs, optimize performance, and ensure a smooth user experience.

11. Deployment: Deploy the web application on a reliable web hosting platform, considering scalability and security.

12. Marketing and Promotion: Promote your service to potential users, possibly through partnerships with local transportation authorities.

13. Maintenance and Updates: Continuously monitor and maintain the web application, incorporating new data and features as needed.

Web Development (HTML) Coding :

```
<!DOCTYPE html>

<html>

<head>

    <title>Public Transportation Optimization</title>

</head>

<body>

    <h1>Welcome to Public Transportation Optimization</h1>

    <div id="route-planner">

        <!-- User input fields, map, and route information -->

    </div>

    <div id="real-time-updates">
```

```html
      <!-- Real-time vehicle locations, delays, and schedule information -->

   </div>

   <!-- Other UI components and scripts -->

   <script src="main.js"></script>

</body>

</html>
```