



Department of Statistics & Computer Science

University of Kelaniya

ACADEMIC YEAR -2023/2024(Semester ii)

Full-Stack Software Development

Lab Sheet 03

Objective: This tutorial provides hands-on experience in managing vehicle service data operations, particularly retrieving and deleting service records based on service year and vehicle type. Follow the steps below to implement the required functionality, document your work, and submit your solution through GitHub..

Questions:

1. How can we retrieve a list of all vehicles serviced in a specific year?

- The service center needs to view all vehicles that were serviced during a particular year for maintenance tracking and reporting.
- Create a method in the `VehicleRepository` to find and return a list of vehicles based on their `serviceYear`.
- Expose this method through an endpoint in the `VehicleController` that accepts a year and returns the list of vehicles serviced in that year.

2. How can we retrieve only the vehicle type given the service ID?

- Sometimes, only the type of vehicle (eg:Car, Van, Truck, Bike) is required without fetching full service details.
- Create a method in the `VehicleRepository` to return just the `vehicleType` for a given `serviceId`.
- Implement this as an endpoint in the `VehicleController` that accepts the service ID and returns the vehicle type.

3. How can we remove all vehicle service records for a given year?

- To clear old records and manage storage efficiently, the service center may want to delete all service records for vehicles serviced in a specific year.
- Create a method in the `VehicleRepository` to delete all vehicle records based on `serviceYear`.
- Expose this function as a delete endpoint in the `VehicleController` to allow administrative cleanup.

Submission Guidelines:

- Prepare a Word document named "PS/XXXX/XXX_Tutorial03" or "EC/XXXX/XXX_Tutorial03".
- Include the following elements:
 - Header with your student number, Tutorial Number and course code.
 - Source code, git hub link and screenshots of your work.
 - Footer with page number