#### University of British Columbia, Vancouver

**Department of Computer Science** 



# CPSC 304 Project Cover Page

Milestone #: 1

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Group #: **45** 

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By typing our names and student numbers in the above table, we certify that the work in the attached assignment was performed solely by those whose names and student IDs are included above. (In the case of Project Milestone 0, the main purpose of this page is for you to let us know your e-mail address, and then let us assign you to a TA for your project supervisor.) In addition, we indicate that we are fully aware of the rules and consequences of plagiarism, as set forth by the Department of Computer Science and the University of British Columbia

#### **Project Description**

The domain of this project covers the management and logistics of operating a city transit system.

Inspired by the City of Vancouver's transit system, our database focuses on four vehicle types: bus, train, ferry, plane. Along with information about each vehicle, the project addresses the relationships between the route each vehicle takes (in the form of schedules that organize when and where vehicles are going) and how various transit lines are operated (regarding employees who are involved with different parts of the transit process, including drivers, engineers, technicians, and administrators).

### **Database Specifications**

This database consolidates most of the data necessary to operate a transit system like Translink which can be maintained in the Operation Control Centre. Some of the sample use cases for this database are: the administrators can supervise transit lines and the vehicles operating in each line, keep the history of services done on each vehicle and schedule new services to be done by technicians, riders can register for a user account and manage their payments and card benefits, and client-side applications like Transit and Google Map can query the info about vehicle schedules at each station.

## **Application Platform**

In this project, Oracle is used as the DBMS. The frontend is a web based application which interacts with the database through PHP. We will use Github as the version control and collaboration platform.

#### **ER Diagram**

