

CPSC 304 Project Cover Page

Milestone #: 1

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Group Number: 31

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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 email 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 is the [annual crab study that takes place at Belcarra Regional Park](#) in Port Moody, BC. The study consists of three main players: 1) the researchers who handle, measure, and record biological information about the crabs, 2) recreational crabbers on the docks that donate the crabs they catch for study, and 3) park visitors that stop by to learn about the research or about conservation at large. The Belcarra crab study is a Metro Vancouver initiative on behalf of the government of Canada, so this project aims to provide an easier platform for Metro Vancouver and government employees to query/access the data. We also hope to better represent the impact of the study, regarding both how many crabs are studied, as well as how many members of the public learned something new by interacting with the study.

Aspects represented by this project include the entities: Crab (e.g, sex, shell condition), Trap (e.g, trap type, bait), Crabber (e.g, fishing license, traps), Volunteer (e.g, name, experience), Role (e.g, role type, time), Shift (e.g, date, # crabs studied), Supervisor (e.g, ID, name), Park Visitor (e.g, name, age group). We model the organic way in which these players interact, i.e, crabs are caught in traps, which are owned by crabbers, who donate their catch for volunteers to study during their shifts, and park visitors stop by throughout to inquire about and try touching the crabs.

Database Specifications:

The database provides functionality for the staff (volunteers and supervisors) and the public (crabbers and visitors). Staff should be able to view all available shifts, register for shifts, and during their shifts, they will log data about the crabs, traps, crabbers, and visitors into the database. Crabbers should be able to enroll themselves to participate in the study and park visitors can log the interactions they've had with staff. All parties will be able to query information from the study to inform their own decisions. Staff might sort volunteers by seniority to determine tasks, volunteers could view whether their friends are on the same shift as them, crabbers may be interested in which bait type caught the most legal crabs last season, and park visitors may want to know what kinds of interactions the staff typically have with visitors.

Application Platform:

Our project will utilize JavaScript as our primary programming language, Node.js and Express for our backend, and Oracle for our database. For our frontend, we will supplement JavaScript with HTML and CSS.

ER Diagram:

