University of British Columbia, Vancouver
Department of Computer Science

CPSC 304 Project Cover Page

Milestone #: ___1___

Date: ___2021/10/8_____

Group Number: ___120_____

Name	Student Number	CS Alias (Userid)	Preferred E-mail Address
Hao Tian (Jack) Gong	44409431	b2z2b	haotiangong@hotmail.com
Weihao Sun	71333785	u6x2b	sunweihao2019@163.com
Yuxiang Fu	94074044	u6y2b	strive2p@student.ubc.ca

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

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Project Proposal

Description

Our group decided to concentrate on the domain of theme parks (amusement parks). The database of our project models the employment, logistics, and ticket services of the park. There will be staff with different roles: cashiers, technicians, and operators, each tending to their respective facilities. Staff can only be either one of three of those roles, but some of the staff may not belong to these categories. Cashiers administrate the arcades, technicians maintain the rides periodically with their equipment, and operators are in charge of operating the rides. Cashiers must work in exactly one arcade at a time and every arcade must have a cashier. Each ride has at least one operator and can be maintained by designated technicians. Time of inspection will be logged during maintenance. Regarding tickets, tourists can choose from day passes or individual rides: ride tickets will be associated with individual rides, and day passes will provide access for all rides. Tickets are merely for rides. There are also tickets for children and adults based on the tourist's age. Tourists can play on arcade machines, where they can win points to exchange gifts. Each arcade offers different gifts as prizes. All the arcades in the park have some arcade machines, but it is possible that identical machines appear in different arcades. Consequently, machines cannot uniquely be identified by its name unless combined with the arcade it belongs to.

Database Specifications

The management team of the amusement park will have a centralized place to easily check and update the status of staff, rides, and the arcades in the park. The database can also assist the managers in examining the revenue of the park and make better decisions. The employees will have access to log their work and update information in the system related to their roles, which can reduce the workload of the management team from updating too much information in the database. This relational database model will serve as an abstraction of real-world amusement parks which can be extrapolated to other similar scenarios. The current level of generality of our database tends to attract more people who decide to manage a theme park.

Application Platform

We will use the Oracle database system to implement this project, as well as using Django, which is a framework of Python. Django will be used both for the back-end and front-end for this project. We are not expecting to use other special frameworks or software.

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ER Diagram of our project