

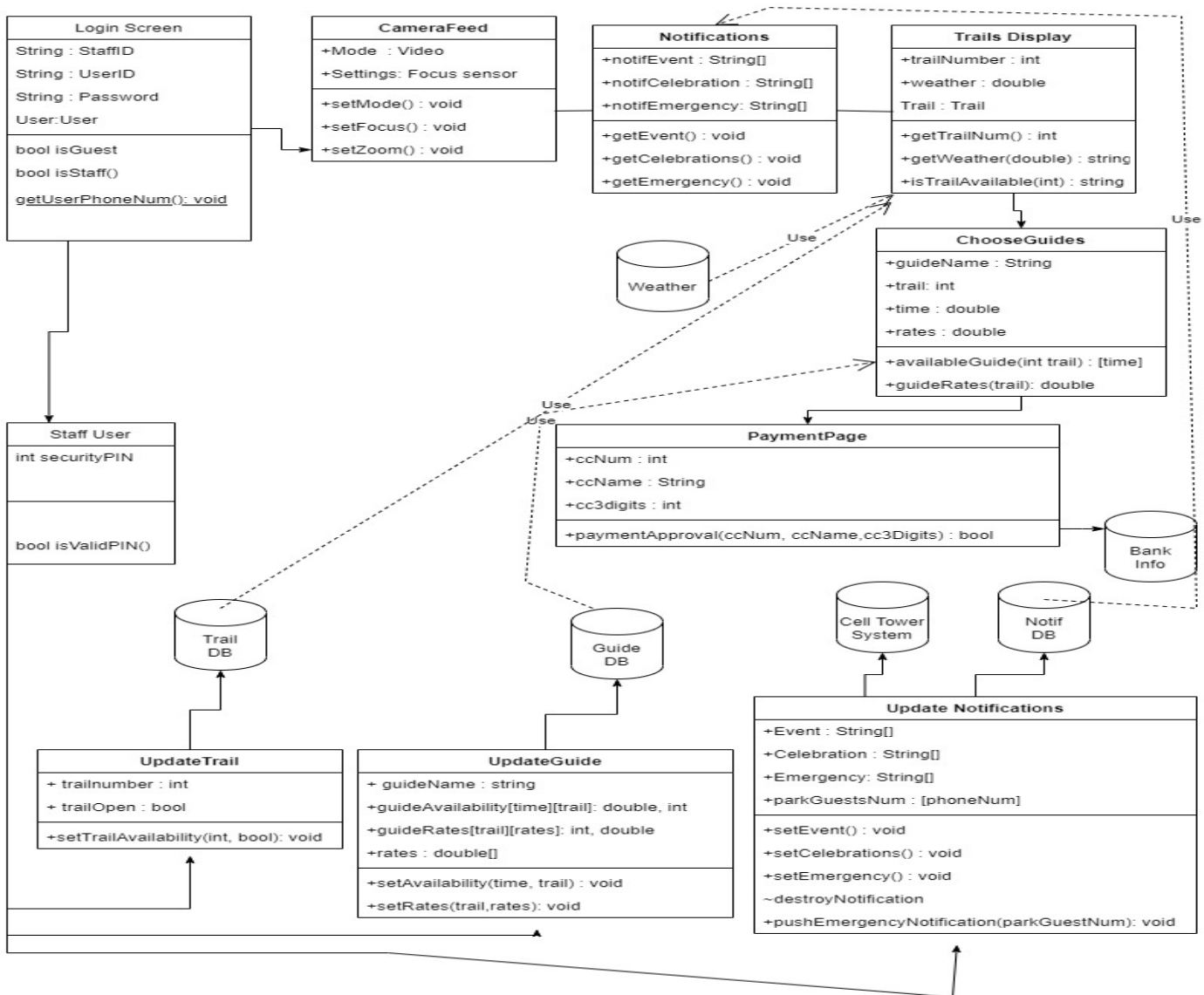
Software Design 2.0

Prepared By:

David Granda, Chloe Salazar, Burak Yilmaz

11 November 2022

In order to hold data for our system, it is necessary to organize the databases; therefore, we will be using SQL. Our SQL database will contain 4 databases which include trail database, guide database, notification database, and weather database. In order to categorize and lessen redundancy for our databases, we chose to use SQL because in one of these databases, some of its attributes are collaborated with other databases, and gives permission to stores directly.



Data Dictionary

Database 1 – Trail Database

Name : Trail

Type : Table

Description : Holds information about trail availability within the weather conditions

Primary Index : TrailID

Name : TrailNumber
Type : Attribute/Integer
Description : Holds the numbers of value of different trials on the system
Range of Values : 1 - 10

Name : TrailOpen
Type : Attributes/Boolean
Description : Holds the information of trail whether it is available or not
Condition possibilities : Either false or true

Database 2 – Guide Database

Name : Guide
Type : Table
Description : Holds information about trail's guide including its availability, name and rate
Primary index : GuideName

Name : GuideName
Type : Attribute/String
Description : It will define the name of the guide. It will also be shown at the beginning in order to differentiate guides.
Length range : 3 - 25 characters

Name :guideAvailability
Type : Attribute/ 2D Array[double][int]
Description : This will hold information about the trail that corresponds to the time that either it is available or not available
Range : Time is between 0 - 1200, and the trail is 1 - 10

Name : guideRates

Type : Attribute/2D Array[int][double]

Description : This will hold the information of the rate of a trail.

Range : 0.0 - 5.0 for rate, 1-10 for trail

Database 3 - Weather Database

Name : WeatherDB

Type : Table

Description : This will hold the information for weather conditions

Primary Index : Weather

Name : Weather

Type : Attribute/double

Description : This will contain double value that will correspond to the weather conditions.

Range : Between 0.0 - 5.0

Database 4 - Notification Database

Name : NotificationID

Type : Table

Description : This will contain information about emergency, celebration, events.

Primary index : events

Name : events

Type : Array[String]

Description : This will hold the value of different types of events

Range : 3 - 25 character length

Name : celebration

Type : Attribute/Array[String]

Description : This will contain the celebrations data

Range : 3 - 25 characters length

Name : emergency

Type :Attribute/array[String]

Description : This will hold the data of immediate calls

Range : 3 - 25 characters length