American International University-Bangladesh (AIUB)

Department of Computer Science and Engineering
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Section: H

Project Title: RESTAURANT RESERVATION SYSTEM

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Project Title

Parking Management System of AIUB

Project Overview

In this project we are going to make a parking management system of AIUB. In AIUB parking area, there near about 900 to 1000 cars and bikes can be park at a time. And there is also a VIP parking lot for VIP. But the problem is, in some occasion the space of the parking lot is not sufficient. In this AIUB parking management system we are also finding the solution of the traffic jam of kuratoli road, beside the insufficient space problem in the parking area.

To avoid the traffic jam of kuratoli, there will be two kuratoli gate. Kuratoli Gate-1 is at the head of the Kuratoli road, which is located at the Bissho-road. And the other one is Kuratoli Gate-2 is located at the front of AIUB entry point.

There are CCTV cameras in the parking area. There are also watchmen in the parking area who can continuously monitoring that sufficiency place in the parking area, and inform the guard of Kuratoli Gate-1 continuously. So first 500-600 cars and bikes can enter the parking area with driver. When it crosses the number to 400. Those who are coming with the driver they will not entry the university with their car. They have to drop in the front of Kuratoli Gate-1 and they will use battery mini car service to students, faculties, staffs, guardians. Those who are coming outside of the kuratoli without car will also do the same as using the battery mini car.

For those who are entering with car with their driver. The driver has to take a card which would have the ID information of student, faculty, staff, guardian. From Gate-1, the guard will give the printed card which will be printed by the machine. And when this car will enter Gate-2 the guard will check this card and then the car will enter the university and will park his vehicle in the parking area. For the biker and the self-driving student/faculty/staffs there will be a checking in the Gate-2. Student, faculties, staffs will enter university by showing their ID card. Guardian should show there NID card and submit his photo to the guard of Gate-2. Then they can enter the university and then enter the parking area.

For the AIUB's own transport. The drivers should be registered by ID from AIUB authority. They will enter from Gate-1 by checking the car by the guard, they will cross the Kuratoli road and goes to Gate-2. Gate -2 guard will verify their ID and go into the AIUB's own transport parking area.

There is a charging place for the battery mini car which will be located beside the parking area. About 50 battery mini cars can charge at a time in charging place. It takes one hour to get full charge and it replace by other 50 uncharged battery mini cars.

For the VIPs, there will be no restriction to entry the university parking area. When the VIP will come to the university they will inform the university authority and the authority will inform the both guard of two gate, they will open the gate and the VIP cars will enter the university and they will place the car into the VIP parking area. For that particular time the battery mini car service will be stopped and the VIP cars will enter the varsity.

For the study tour transport, there will no restriction to enter the university. But for that transport the parking place is in front of the D-building. As well as like VIP transport, the battery mini car service will be stopped for the particular time when the study tour transport will enter.

The user groups of the above proposed system are,

- Students, faculties, staffs, guardians
- VIP guests

Justification

There are huge benefits of the above mentioned system. Such as,

- ➢ The parking area would be more organized and will be easy to maintain systematically.

- ➢ The main major problem of students and faculties are the traffic in the Kuratoli road during the class time. This proposed system can solve this vital problem.

- ➢ The battery powered mini cars could be very helpful for those students who don't bring their own vehicle.

- ➢ As the battery powered mini car service will be providing by the AIUB authority, this service will ensure the safety and be cost efficient for the students.

- ➢ The system of letting enter the VIP cars are very organized. This way they don't need to face any difficulty to enter into the AIUB.

Use Case Diagram

Here are the name of actors and their activity mentioned below,

Actor	Activity
Students	o Brings Cars o Brings Bike o Use battery powered car
Faculties/ Staffs/ Guardians	o Brings Cars o Brings Bike o Use battery powered car
Guard (Gate-1)	o Guard in Gate-1 o Checking o Gives card
Guard (Gate-2)	o Guard in Gate-2 o Check card o Checking self-driven vehicles o Receives NID and photo of guardians o Verifies AIUB's own drivers ID
Guests	Brings cars
Study tour	Has reserved bus
Car drivers	o Takes card with student's/ Faculty's/ Staff's/ Guardian's ID information o Parks vehicle in the parking area/ VIP parking area
VIP	o Brings Cars o Inform the varsity authority
University authority	Inform guards about VIP's entry

Parking Management
System of AIUB