Group 5: The Quad Squad

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SU Safety Campus Shuttle Management System

BUSINESS DESCRIPTION

The SU safety shuttle system was created with the intention of giving students a convenient way to schedule a safety escort shuttle anywhere on campus. Bookings will be managed, rides will be tracked, student information will be stored, and real-time tracking and arrival estimation will be provided by the system.

PROBLEM STATEMENT

Currently, students must enter all their information each time they order a shuttle using the inefficient Orange Safe app for booking student safety escort shuttles. Time is wasted entering information such first and last names, addresses, and email addresses because the program doesn't pull student information based on SUID. The program does not offer real-time wait times or tracking data regarding the whereabouts of the safety escort shuttle. Additionally, there is no communication regarding the worker who oversees picking up the student. Finally, because group bookings are currently not supported by the program, it is more difficult for numerous students to arrange a safety shuttle at the same time and location.

OBJECTIVE OF THE PROPOSED SOLUTION

We want a build a centralized system to help assist student book a safety shuttle in a convenient and efficient way with real time tracking information. The main objective is as follows:
   o Reduce human errors when students enter their details
   o Improving data consistency and data retrieval process
   o Ensuring easy record keeping of the vast student database
   o Giving real-time updates and notifications
   o Generating reports indicating the busiest hour of the day

USERS

Students will utilize the application to access the campus shuttle application more easily and quickly as the main end users of this product. The staff members who will deliver the student home are also listed on the application. The name, student ID number, and pick-up and drop-off locations will all be available to the employee. The database management system allows the administration department to view the prior booking history of the employees and students.

ENTITIES AND ATTRIBUTES

STUDENTS

- student_id (PK)
- student_suid
- student_firstname
- student_lastname
- student_email
- student_phonenumber
- student_age
- student_home_address
- student_vehicle_id (FK)
- student_employee_id (FK)

EMPLOYEES

- employee_id (PK)
- employee_firstname
- employee_lastname
- employee_email
- employee_contact_number
- employee_address
- employee_vehicle_id (FK)

BOOKINGS

- booking_id (PK)
- booking_time
- pick_up_location
- drop_off_location
- booking_status (received ,pending, dispatched, canceled ,arriving, arrived, completed, no_call_no_show)
- estimated_arrival_time
- booking_student_id (FK)
- booking_employee_id (FK)

VEHICLE

- vehicle_id (PK)
- vehicle_number
- license_number
- car_model

ADMIN

- admin_department_id
- admin_name
- email_id
- phone_number

RATINGS

- rating_id (PK)
- rating
- feedback
- rating_student_id (FK)