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IST 659

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Database Management Project Proposal:
DPS (Department of Public safety) service Database Application

Business description

I am planning to develop a database project to help the students, staff and faculty of the Syracuse University to efficiently use the DPS service whenever needed. My project, therefore, resides within the community's safety and security needs. The Department of Public Safety is part of the Division of Campus Safety and Emergency Services, a division created in 2014 to bring safety-related functions across the University together into one organization.

The Department of Public Safety is the campus police force serving the Syracuse University campus and University-controlled properties in Syracuse, New York. The Department employs 42 Public Safety Officers and 14 supporting Community Services Officers who are stationed around campus and patrol the surrounding community. Public Safety Officers are on duty 24 hours a day, 7 days a week, and the DPS emergency call center is also available around the clock to address our community's safety and security needs.

Primarily, the DPS provides various escort services for the SU students, staff, and faculty especially during the night, to ensure that members of the campus community arrive safely to their destinations when either no transport services are available or the frequency of the public transport is less. Listed below are the various escort services provided by the DPS:

- Walking Escort Service
- Shuttle Escort Service
- Shuttle-U-home
- Shuttle 44

Problem Statement

Currently, for ordering a DPS escort service, you either need to go to the DPS office at the Watson Hall or call the DPS helpline service to order for an escort service. There are a lot of problems associated with this current procedure and the process to order an escort service. Firstly, if an individual calls to order a DPS escort service, he/she needs to declare their SUID number, start location and the destination location over the phone. The person on the other end has to enter all the details into the database application. This is highly time-consuming and there exist multiple errors due to human hearing.

Secondly, if an individual is at a safe location (such as an on-campus building or residence) he/she may have to wait for up to 90 minutes because the escort may be working with another student. As a result, an individual has to wait for an indefinite time in hope for the escort service to show up.

Proposed Solution

The primary business objective of my proposed solution is to eliminate the traditional method of ordering an escort service by adopting a database solution. A database application will allow the Department of Public Safety (DPS) to directly collect the information from the users per se, who can sign up for the service to enter their SUID number, starting location and the destination location to order a DPS escort service. This will eliminate the need for having a person to process the order for an escort service.

Moreover, the proposed database solution will also eliminate the time the users spend in waiting for an escort service to arrive at the desired start location. Using a database will enable the SU students, staff, and the faculty to plan their journey well ahead of time.

Also, a database application solution will change the process of ordering an escort service. Users will no more have to call on the helpline number and give the relevant details over the phone to book the service. Rather having a database application will help to book the DPS service within minutes by just following the on-screen instructions. The pre-booking feature will allow users to know how long it will take the escort service to arrive. For every user the application will store all the transit information in the database so when the same user orders for a DPS service for the

second time, he/she does not have to enter their details again in the database hence eliminating the redundancy.

In addition, the proposed database system will also enable users to provide a feedback about the driver and the escort service for quality control. Similarly, drivers will have a different signing up process than the users where they can report the user for any misbehavior while commuting.

Overall the main functions to be considered in the proposed system are as follow,

1. Students/Staff/Faculty: To login, book for a DPS service and then if possible provide a feedback
2. Administrative staff: To monitor, analyze, grant/cancel the reservations based on situations from the back-end. Moreover, supervising the system for any faults and improvement
3. Driver: Report the user for any misbehavior

Below mentioned are the Entities and their corresponding attributes:

1. Students/staff: SUID (Required), First Name, Last Name, Type (Staff/Student/Faculty), Contact number, Email ID, Starting Location (Required), Destination location (Required), Desired time (Required), feedback
2. Escort Service Vehicle: Escort Service type (Required), Vehicle number (Required), Vehicle type, Capacity
3. Driver: Driver ID (Required), Driver feedback
4. Administrative staff: Admin ID (Required), First Name, Last Name, Contact number, Email ID

Users

The users of my database application can be segregated into three segments: DPS administrators, SU students/staff, and the drivers.

The DPS administrators will have the full access to the database system, where they can monitor and analyze every user request for its authenticity. This is because the safety escort service is not a commuter ride service. These escorts service are solely for an individual's safety and not for convenience. The DPS administrators can also cancel the request depending upon the transit recourses available especially during the bus hours.

Secondly, the database system can be used by the SU students, staff and the faculty to book a DPS service by creating a student account. This segment of users will have a partial access over the database system, where they can either book a service or provide their valuable feedback.

Lastly, the drivers will have a partial access to the database system where they will have their own account on the system through which they will know the current and the next passenger's transit information (Name, SUID number, start location and the destination location). Further, they also have the privilege to report the user for any misbehavior.