Student Number

Evaluation of the database

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# Introduction

Inside this document contains an evaluation of data produced for the emergency services topics included inside this document are as follows, disusing existing faults, possible improvements justifying design and function choices.

# Faults inside the database

After overlooking the database a few faults were discovered that require to be amended before deployment. The first discovered issue is that the login application does not load automatically before attempting to access the database, this is required as users who should not have access can view sensitive data or even remove it.

Secondly attempting to log in also has an error, but it was noted that privilege levels were attempted to be created this is a good idea to implement providing set staff members such as managers the ability to append or remove data instead of general staff members reducing issues under qualified staff members could cause as well as staff members removing other staff members from the timetables.

The third issue discovered is that the add incident query that was supposed to add new victims to the table would keep adding the same user causing repeated data that was redundant instead of having the query do this a macro could be viable instead, the macro could theoretically contain boxes to type inside of adding each required piece of data correctly.

The fourth to be discussed is the attempted queries that were intended to calculate and update the database of how many vehicles are available this is an efficient idea that could assist in the process of dispatching a team to an emergency these queries should be stored on a switchboard general staff has access too.

# Improvements to the database

As stated above the login system should be the first thing all staff should see on the system this could be displayed at the start of the shift and after breaks between shifts.

Another improvement to the database could be once a month the data on the database could be archived and counted up to determine if there are any changes required to the system such as allocating more staff to a location due to an increase of incidents related to a set injury type, this archived data should be encrypted and stored at a data centre as well as another building to this is for insurance in case of documents being accidentally destroyed or lost, although data centres are relatively secure this does not guarantee that data and paperwork is secure at all times there has been rumours cases of accidents that have caused the loss of data such as fires, floods and other natural disasters in march 2021 a freak incident occurred this was covered on Reuters by (Mathieu Rosemain, 2021) in France at the OVHcloud building this caused a disruption to millions of websites causing issues for staff sending emails or entire sites going down luckily no major pieces of data were lost due to the fire as OVHcloud uses the cloud storage system to secure data. The reasoning behind encrypting the data is if an individual gains access to the data it is unreadable to them causing an extra layer of security.

# Opinion on additional design ideas

The attempt to maintain a fast and effective approach is noticed but needs to be executed correctly as faults should not occur at any point to maintain the fast approach this is due to the level of importance this database is as handling the dispatch of a vehicle could be life or death for an individual if done improperly or slowly.

The ideas presented such as adding all incidents that are in the same region are unique and interesting ideas once these are functional the statistics received could be extremely beneficial for future updates and large-scale alterations.

# Possible improvements

Possible ideas and improvements could aid ease of access to the staff using the system such as predictive typing or shortcut keys when filling in forms to provide the fastest and accurate form completions, over time this could even update the number of vehicles needed for any given incident without extended input.

A second suggestion would be to store data of the location current jobs are as well as current ongoing jobs doing this could provide a query that could calculate the estimated travel distance required to reach said job and to allocate the closest and most relevant required responders for when there is a lack of vehicles available similar to what a taxi company possibly uses.

Another suggestion could be that incidents that require medical attention are that their relevant data could be passed along to hospitals or doctors giving time for them to adapt and prepare for any given incident rapidly this could save a person life.

# Conclusion

In conclusion, although there are faults with the database a lot of interesting ideas were attempted that could change the way all emergency services handle their cases no matter how big or small, they may be. Once the underlying key faults are amended a discussion with the client could be beneficial to both parties granting and incite on future ideas that could lead to large scale changes.

# Bibliography

**There are no sources in the current document.**