

SOLUTION OVERVIEW

PROJECT EXPEDIENT

The name of the project is "Expedient" which means practically possible. We think this solution is a practical solution to any Pandemic crisis. That will help the doctors and nursing staff to deal with it.

SOLUTION:-

This project is basically consist of two things:-

- 1.) COVID-19 DEATH RISK ANALYZER.
- 2.) ASSET MANAGEMENT SYSTEM.

COVID-19 DEATH RISK ANALYZER



This will be a Machine Learning based program or software that will predict the Death Risk of a new patient by implementing the dataset of previous several 100 patients. This analyzer will also predict the medicine and that are used to treat the previous patients.

This analyzer consist of a UI which will be used by the doctors to fed the data of new patient like his AGE, SYMPTOMS, etc as the parameter and ML model will predict the

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Death Risk of the patient and medicines that must be used to treat the patients. As we know ML models are based on the process that takes the results and algorithm and then predict the results for new one. If we achieve a success rate of more than 70 percent we will think our model is correct(for initial purpose).

Advantages:-

1. Simpler and easier user interface.
2. Based on new technology like Machine Learning.
3. Correct and precise prediction for easiness of doctors.
4. Will help doctors and nursing staff to reach a higher success rate in curing patients.

Tech Used:-

- Python_3 for backend.
- Machine learning libraries like scikit-learn.
- Qt-Designer for user interface.
- Dataset will be taken from reliable source to train the model.

ASSET MANAGEMENT SYSTEM:-

This will be a simple, easy to operate asset management system which keep a check on the assets that are available to the doctors and nursing staff in a particular hospital or pandemic quarantine center.

This asset management system will be based on database management system that will keep a check of assets like PPE kits, Medicines, gloves, masks, etc. This will consist of simple UI that every doctor and nursing staff just have to feed it with the data like number of PPE kits used, gloves used, no. of masks used and more assets if used. This will contain the list of whole assets that a hospital have.

Features:-

- Alert if more than assets are used in one day to stop the wastage.
- Alert if the total asset available fall down by more than 20 percent.
- Alert if a particular asset is going to be short in near future.
- Alert for the total number of assets used in one day.

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Advantages:-

- Simple and Easier UI for doctors.
- Alerts for various asset shortage.
- By use of this system, it will get easier to keep a check on assets.
- Can play a significant role for hospital management team to leave asset management on this program.

Tech Used:-

- Database-sqlite_3 or IBM DB2.
- Qt-Designer or Node-Red or android studio for User Interface.
- Pyhton for backend if Qt-Designer is used.

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