PROJECT EXPEDIENT 2020

"Our intelligence is what makes us human,

And AI is an extension of that quality."

– Yann LeCun
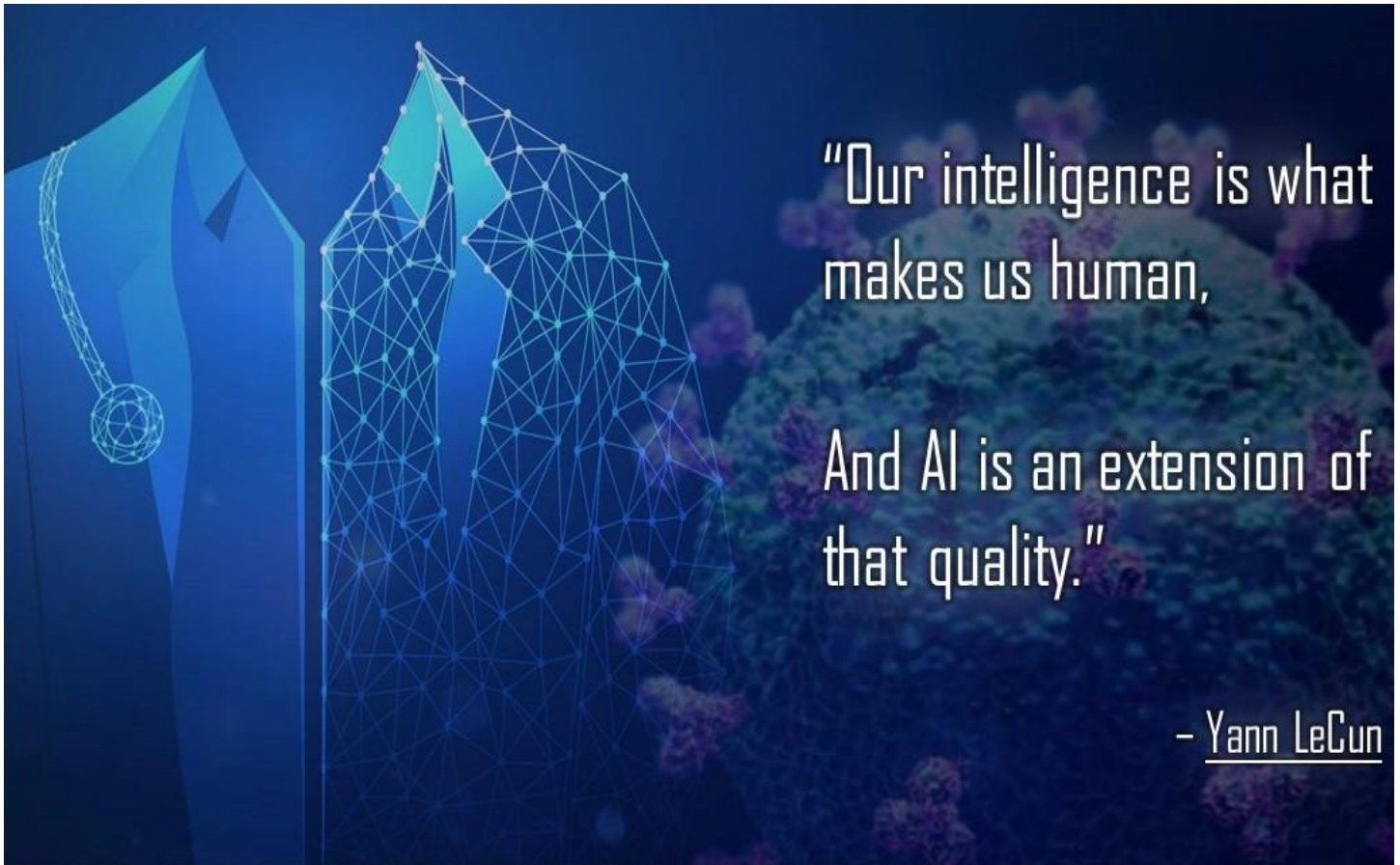
What would you say about the poor Healthcare and Medical facilities that leads to deaths of people?

The **pain** of loosing loved ones can't get over by just some sort of financial compensation. With **money** one can do many things but, you can't buy the emotions of people connected to the loved ones. And if some how they lost them, that debt can't be **repaid**.

So, what are the barriers to the Health care and Medical facilities especially at this time of Pandemic?

The main reasons that we can lose our side against a pandemic are: -

- Lack of patient surveillance (Patients not following proper guidelines can risk the people around).
- Due to the lack of knowledge about the patients of the particular area, the disease can spread in that particular area.
- There is no way that someone can predict the death risk factor of that particular new patient.
- There is no prediction about the steps that must be taken in the affected area.
- And some miscellaneous things like uneven medicine prediction, data manager for medicines, Low resource alert, etc.

What are the steps that must be taken to remove these issues?

- Central management system for patient surveillance for quarantine area.
- Risk prediction according to geographical Map of the affected area.
- Death Risk prediction for the new patient according to various factors.
- Medicine prediction system for the particular patient.
- Updating the collection of data into the system according to particular area, patient and many more factors.
- A management system for medicines, resources like masks, PPE kits available and an alert system for unusual conditions like patients not following the guidelines.
- And many more.

What is our Idea?

The product combines human intelligence and Ai into augmented intelligence focuses on a supportive or assistive role for the algorithms, emphasizing that these technologies are designed to enhance human processing, cognition, and work, rather than replace it. William Ross Ashby originally popularized the term "amplifying intelligence," which transformed into "augmented intelligence".

- **What features we're going to implement?**

  - A proper surveillance system to keep a check on patients following guidelines (Maintaining proper distance between two patients by camera vision)
  - Prediction of the risk factor for a particular area according to the data collected of active patients.
  - A proper alert system for unusual situations (Low medicine alert by regularly collecting the data and to inform doctors about the patients not following the guidelines).
  - Notify the doctors about the new patient's Death Risk Factor according to the patients that had died.
  - Main system at a place that keep the data collected in a proper manner of each and every patient.
  - A device will be installed at every isolation center which will be connected to the main system server at that center. And all those main frames should be connected to a bigger main frame computer or server for a particular city.
  - The large scale this will be implemented the better will be the output of this device.
- **How we are going to implement the device?**

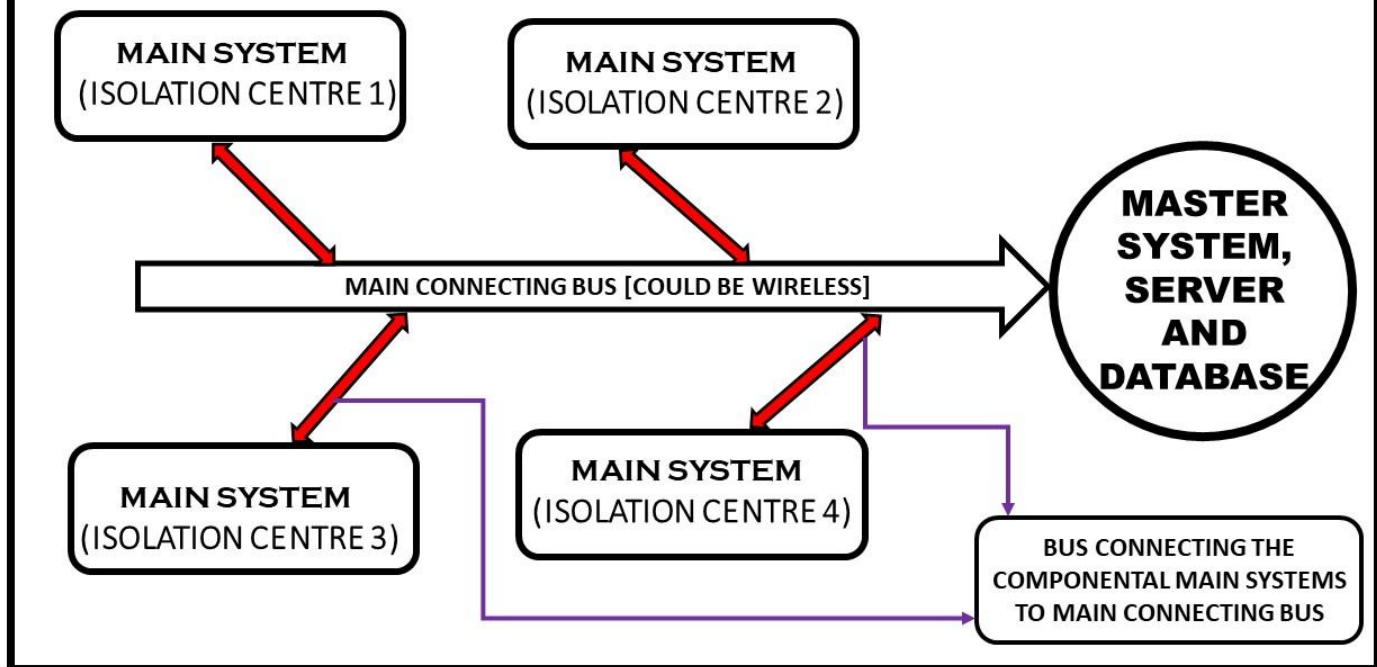 Let us study the device in-depth for getting the whole functioning of the device:

  The following flowchart and diagram shows typical structure for the device we're thought.

  Our device first take little time to setup but let us consider the situation of a city having four isolation centers then the device can be installed easily consider the following diagram: -
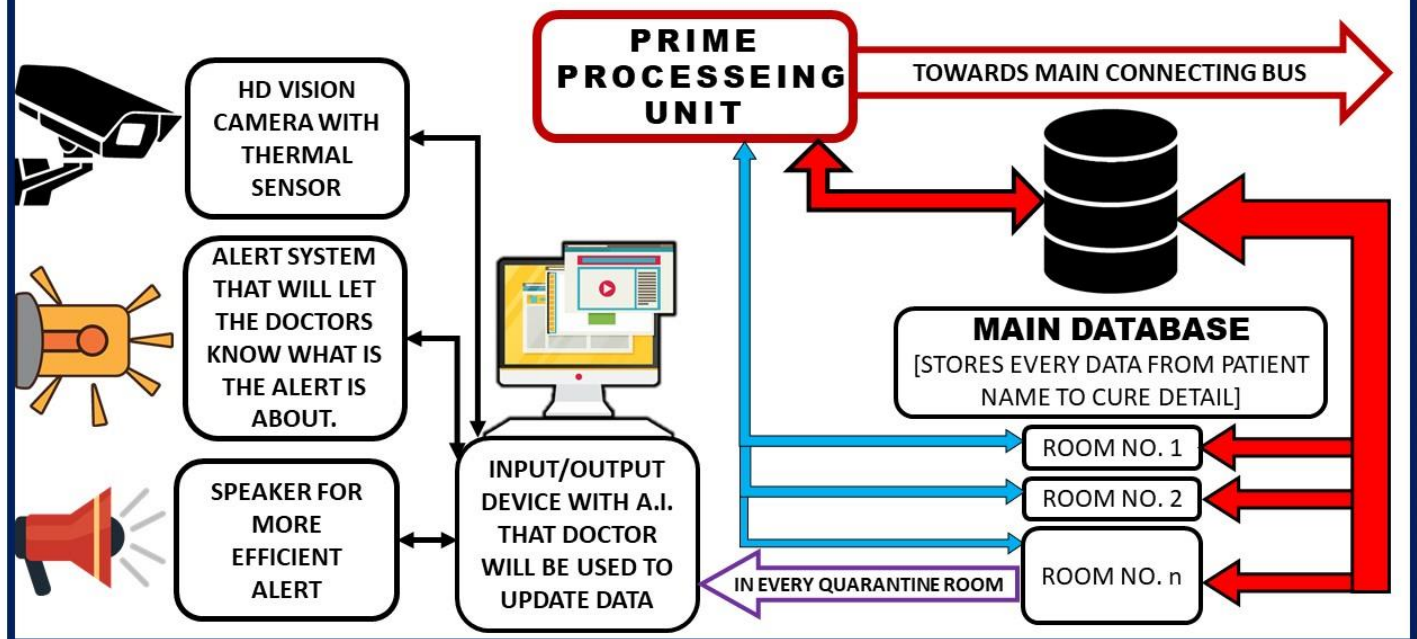 Divided into two phases: -

Installation phase 1: -

MASTER SYSTEM ARCHITECTURE

MAIN SYSTEM (ISOLATION CENTRE 1)

MAIN SYSTEM (ISOLATION CENTRE 2)

MASTER SYSTEM, SERVER AND DATABASE

MAIN CONNECTING BUS [COULD BE WIRELESS]

MAIN SYSTEM (ISOLATION CENTRE 3)

MAIN SYSTEM (ISOLATION CENTRE 4)

BUS CONNECTING THE COMPONENTAL MAIN SYSTEMS TO MAIN CONNECTING BUS

Further installation phase 2: -

MAIN SYSTEM ARCHITECTURE

PRIME PROCESSEING UNIT

TOWARDS MAIN CONNECTING BUS

HD VISION CAMERA WITH THERMAL SENSOR

ALERT SYSTEM THAT WILL LET THE DOCTORS KNOW WHAT IS THE ALERT IS ABOUT.

SPEAKER FOR MORE EFFICIENT ALERT

INPUT/OUTPUT DEVICE WITH A.I. THAT DOCTOR WILL BE USED TO UPDATE DATA

MAIN DATABASE [STORES EVERY DATA FROM PATIENT NAME TO CURE DETAIL]

ROOM NO. 1

ROOM NO. 2

ROOM NO. n

IN EVERY QUARANTINE ROOM

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