

AED Final Project Proposal - Vaccine Distribution System

Objective:

- This project aims to design, develop and implement a vaccine distribution, which will enable real time access to availability of vaccines at National, State and local levels and proper accounting of vaccines, thus ensuring safe and non-wastage of vaccines.

Problem Overview :

- In past a few years, we have encountered some severe diseases and these diseases spreads exponentially. Hence, vaccination distribution management has to be more effective.

Solution:

- We must record vaccine distribution to improve the efficiency, reduce the wastage of vaccine and deliver vaccine according to its demand.
- Such an application will benefit Pharmaceutical Companies, Hospitals and clinics and patients ensuring more efficient Distribution system.

Key Functionalities :

- Pharmaceutical Enterprise comprises of inventory organizations which helped maintaining inventory of vaccines that are created.
- Logistic Organization can track demand and supply of a vaccines which can prevent wastage of vaccines.
- Distributor enterprise consist of financial organization which manages the transactions between the site and the distributor
- The CDC keeps track of available inventory on a daily basis and uses a formula to determine how to allocate vaccines supply to sites. A site can only order from the allocated quantity for that state. If the limit is reached for that state then the order is delayed or rejected.
- Distributor interacts with vaccine manufactures and ship through their distribution centers.
- Insurance information can be collected and patients who have insurance are covered by CDC for differences. Patients without insurance have to pay differences.

Ecosystem Architecture :

