



open**SAP**

TOUCH IOT WITH SAP LEONARDO

PROTOTYPE CHALLENGE

**IOT PROTOTYPE ON
CONNECTED BLOOD BANK**



Story

Story

Healthcare Industry always struggle to provide a seamless availability of Blood and Organs for patients with immediate requirements of Blood transfusions or Organ replacement. Although technology indeed has made a marked shift in the way things operate in recent years but I believe with IOT, it would change the way things have been working until now. All Hospitals and Healthcare Organization can have a connected system which gives the available Blood types, Expiry dates, Location, Temperature at which its stores. The same applies for Organ donors, its availability dates etc. In current state of affairs, where at one location, thousands of liters of donated blood getting wasted every day, there is acute shortage of blood units for various medical procedure someplace else.

IOT will change the face of the way business was conducted in this space since each Healthcare system can see the availability, types, which all Blood types has more demands or has scarcity, and if required request rare blood type from nearby connected Healthcare organizations/donors, all at real time .Also notifies concerns Person when the threshold limit is reached for each blood type. With real time monitoring of the storage temperature, managing demand /supply real time, wastage can be minimized .

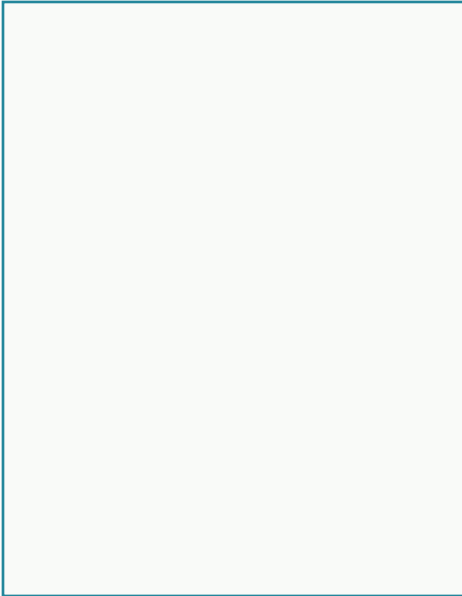
With a Donor pool ,its location and details maintained in the system ,Donor of required blood types can be viewed & reached in real time by their locations, availability too using Notifications in scenarios of urgent requirement of specific blood type.



Persona

Explain the needs, goals, and pain points addressed

Persona



Mellisha

Blood bank Manager in a Major Healthcare Chain

Being in a crucial position, I am always busy dealing with Workplace needs, communicating with various people to meet the demand and supply chain in the minimum time.

About

- 38 year old ,17 years of Industry Experience in the Blood bank department
- Key person to be reached out in case of crisis situations in Blood bank, also for daily operations and decision making situations.
- I work with the Chief Facility Officers, Doctors, Nurses.
- My work involve lots of communication within Hospital staff and outside.

Responsibilities

- I am responsible for proper operation of Blood bank.
- I would be responsible for meeting any demand on Blood units ,keeping demand and supply chain
- Operational efficiency of blood bank also
- Maintaining the Donor pool

Main Goals

- Maintaining optimal demand supply to be able to meet any crisis situation effectively
- Maintaining a optimal Donor pool with updated contact details.
- Operational efficiency of bank with minimum wastage and pilferage
- Seamless communication channel with all connected Blood banks and Donors...

Needs

- Need to have a system which can enable meeting any demand effectively
- To be able to contact all interested Donors and Blood bank in a time efficient manner to meet any emergency situation
- To be able to monitor blood bank's operational KPIs like maximum and minimum temperature ,pilferage, outages in real time and take action effectively ...

Pain Points

- Don't have the facility to check live availability of Blood Units in nearby locations
- Don't have a system, which can notify Donors within nearby locations for a urgent demand in units.
- No real time monitoring of storage conditions of blood units like temperature ,pilferage ,expiry



Point of View (PoV)

User + need + insight/why

Point of View

As a Blood bank Manager

I need a way to be able to meet all the Blood Units requests at my Hospital and also nearby Healthcare facilities, should be able to have a projection and quickly reach available Donors as well as soon possible Also I need a way to monitor the storage condition at real time

so that I achieve an optimal operation efficiency and would be able to deal any crisis situation so as to provide optimal support to Patients and Doctors during emergency



UX Journey

Describe Actions, Mindset, Feelings and Touch points

Actions

What actions and activities does the Persona take while going through the journey to achieve their goal?

Mindset

What is on the Persona's mind while taking the actions of their journey?

Feelings

How does the Persona feel each step of the journey? In the template you can color code the different bars. If all 4 bars are colored the persona is super happy, whereas if the persona is upset only one bar is colored.

Touch Points

What touch points does the Persona have? Those can be, for example, tools, channels, devices, conversations, and so on.

User Experience Journey Template – Example: *Getting coffee from a coffee shop*

ACTIONS	<ul style="list-style-type: none"> ▶ Gets a new request for 100 units of O- bloodType equation here. 	<ul style="list-style-type: none"> ▶ Checks online inventory for available units ▶ On shortage ,calls nearby blood banks. ▶ Informs concern request medical personnel to find some alternate arrangements. 	<ul style="list-style-type: none"> ▶ Fills in the requisition form and places the request of the available 	<ul style="list-style-type: none"> ▶ Releases the available units to the concern medical personnel 	<ul style="list-style-type: none"> ▶ Creates a new request for getting the O+ blood units to meet the shortage and to maintain certain optimal limit set ▶ Conveys concern dept to get in touch with interested donors or blood banks 	<ul style="list-style-type: none"> ▶ Gets the required blood units through requested channels
MINDSET	<ul style="list-style-type: none"> ▶ Ahh ...a new request ,need to act fast 	<ul style="list-style-type: none"> ▶ Ohh...We only have few to cater to this request :(▶ Need to inform ,it's sad we can't meet the need right away. ▶ More task ,need to check if I can meet this demand from outside blood bank facilities 	<ul style="list-style-type: none"> ▶ Let's fill the request ,if we get lucky ,it's a win -win situation 	<ul style="list-style-type: none"> ▶ <u>Atleast</u> let me send the available units ASAP 	<ul style="list-style-type: none"> ▶ Now no more O+ units ,we have to place a order fast to replenish it with minimum limit of units ▶ Have to touch base with Donor management team 	<ul style="list-style-type: none"> ▶ Finally store is re-stocked
FEELING	😊					
	☹️					
TOUCHPOINTS	<ul style="list-style-type: none"> ▶ Blood Bank Order list 	<ul style="list-style-type: none"> ▶ Inventory ▶ Nearby blood banks ▶ Medical Personnel 	<ul style="list-style-type: none"> ▶ Online system to request from outside 	<ul style="list-style-type: none"> ▶ Medical Personnel ▶ Store 	<ul style="list-style-type: none"> ▶ Donor management team ▶ Online request form to replenish store to minimum units 	<ul style="list-style-type: none"> ▶ Blood bank store



Prototype

Prototype screens for an IoT application to solve your PoV

Goal of Prototype Challenge

The prototype of Connected Blood banks leveraging IOT is done using SAP BUILD and the URL of the published project is provided below.

The intended goals in this prototype are:

1. All Connected Blood banks can communicate with each other in case of crisis demands in blood/platelet units in real time.
2. Active & interested Donors also can be notified at real time to meet any crisis situation.
3. Blood bank's operation conditional and pilferages can be monitored at real time and concerned persons can be notified in case of sub- optimal operational conditions like max and min temperature etc.
4. This also would give a real time picture of spoilage and pilferages in real time by showing the Bloods units getting expired thereby curbing wastage of this precious blood units since the snapshot can allow to take decision if they can be transferred to some other Healthcare facility having high demand

URL of the Published project in BUILD

https://standard.build.me/prototype-editors/api/public/v1/snapshots/b5cfb09f1b1b8daf0e2060a6/artifacts/latest/index.html#/launch_page