

TECHNOLOGY BUCKET : HEALTHCARE & BIOMEDICAL
DEVICES

CATEGORY : SOFTWARE

PROBLEM STATEMENT : SMART EMERGENCY
NAVIGATION SYSTEM
(SMART CITIES)

TEAM NAME : X-CREW

TEAM LEADER NAME : ESWARAN B V

SMART EMERGENCY NAVIGATION SYSTEM - ABSTRACT

- TIME IS THE MOST PRECIOUS RESOURCE. SO IN SITUATION WHERE EVERY SECOND COUNTS, WE HAVE TO MAKE THE MOST USE OF IT.
- OUR APP ELIMINATES THE NEED OF FILLING UP FORMS IN HOSPITAL BY SENDING THE DETAILS OF PATIENT DIRECTLY TO THE DOCTOR WHO ATTENDS EMERGENCY SITUATIONS.
- HELPER CAN OBTAIN THE PATIENT'S PREVIOUS MEDICAL HISTORY BY SCANNING THE QR CODE PRESENT IN THE LOCK SCREEN OF THE PATIENT'S PHONE AND SEND IT TO THE DOCTOR
- NOT ONLY THIS, THE APP ALSO SUGGESTS A HOSPITAL USING ML ALGORITHMS FACTORING IN PATIENT'S PREVIOUS CHOICE OF HOSPITALS, HIS ECONOMIC STABILITY , TYPE OF DISEASES HE HAD IN THE PAST , RATINGS & REVIEWS OF THE HOSPITAL(SOCIAL MEDIA) .

- **THE APP ALSO HAS THE FEATURE WHERE THE HELPER CAN SELECT THE SYMPTOMS THAT THE PATIENT IS SUFFERING. APP SUGGESTS THE BEST AND NEAREST HOSPITAL USING ML ALGORITHM**
- **APP SENDS THE LOCATION OF THE HOSPITAL TO THE AMBULANCE DRIVER SO THAT IT'S EASIER FOR HIM TO NAVIGATE.**
- **TURNS TRAFFIC SIGNALS TO GREEN AS THE AMBULANCE NEARS THE SIGNAL BASED ON THE AMBULANCE'S GPS LOCATION.**
- **FROM THIS PROJECT WE HOPE TO REDUCE REDUNDANT TIME SO THAT PATIENTS CAN BE TAKEN TO BEST AND NEAREST HOSPITAL AND GIVEN QUALITY TREATMENT.**

FLOW PATH DIAGRAM



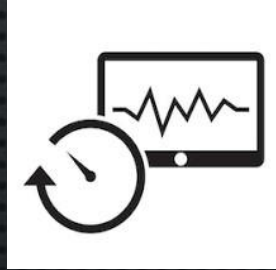
1. PATIENT MEDICAL HISTORY



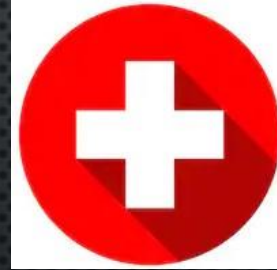
2. GUARDIAN SCANS QR CODE & SELECTS SYMPTOMS



3. DATA FED INTO ML ALGORITHM MAPS PATIENT DATA & SUGGESTS NEAREST HOSPITALS.



4. PATIENT DETAIL & REAL TIME DATA SENT TO THE DOCTORS IN HOSPITAL



5. DOCTORS RECOMMEND EMERGENCY PROCEDURES IF NEEDED



6. APP NAVIGATES THE AMBULANCE ROUTE TO THE HOSPITAL

TECHNOLOGY STACK

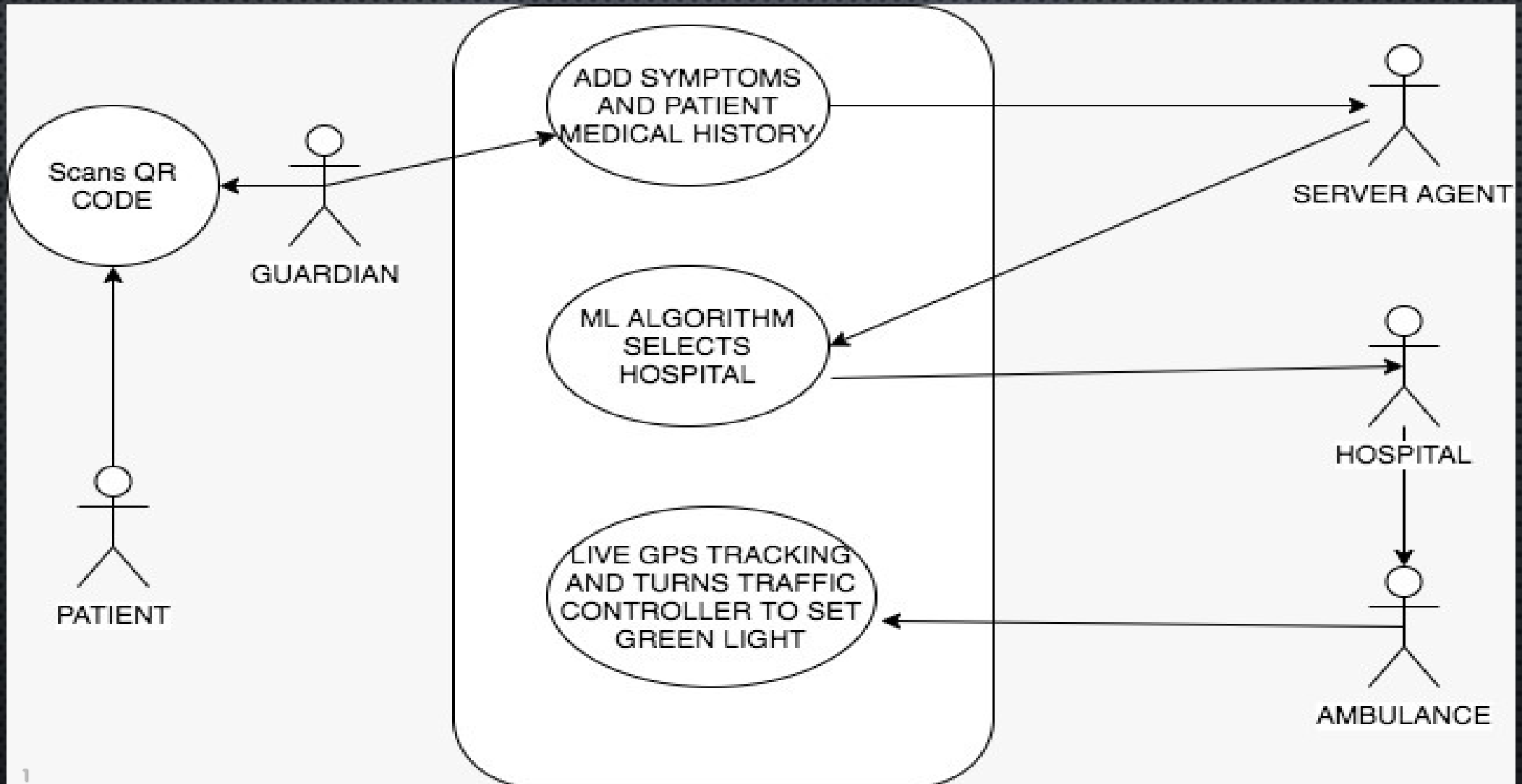
ANDROID APPLICATION DASHBOARD

- ❖ ANDROID STUDIO
- ❖ JAVA
- ❖ XML
- ❖ FIREBASE

GATHERING PATIENT DATA & MAPPING WITH HOSPITALS

- ❖ FLASK, REST API
- ❖ JUPYTER NOTEBOOK
- ❖ PARSEHUB, BS4
- ❖ TALEND OPEN STUDIO
- ❖ IOT

USE CASE DIAGRAM



BENEFITS

- ❖ ELIMINATES REGISTRATION TIME
- ❖ NO DOCUMENTATION HASSLE
- ❖ MAPS SUITABLE (NEAREST) HOSPITAL
- ❖ OPTIMISED ROUTE MAPPING AND FACILITATES SWIFT NAVIGATION
- ❖ INSTANT SIGNAL SWITCHING