

Project Description



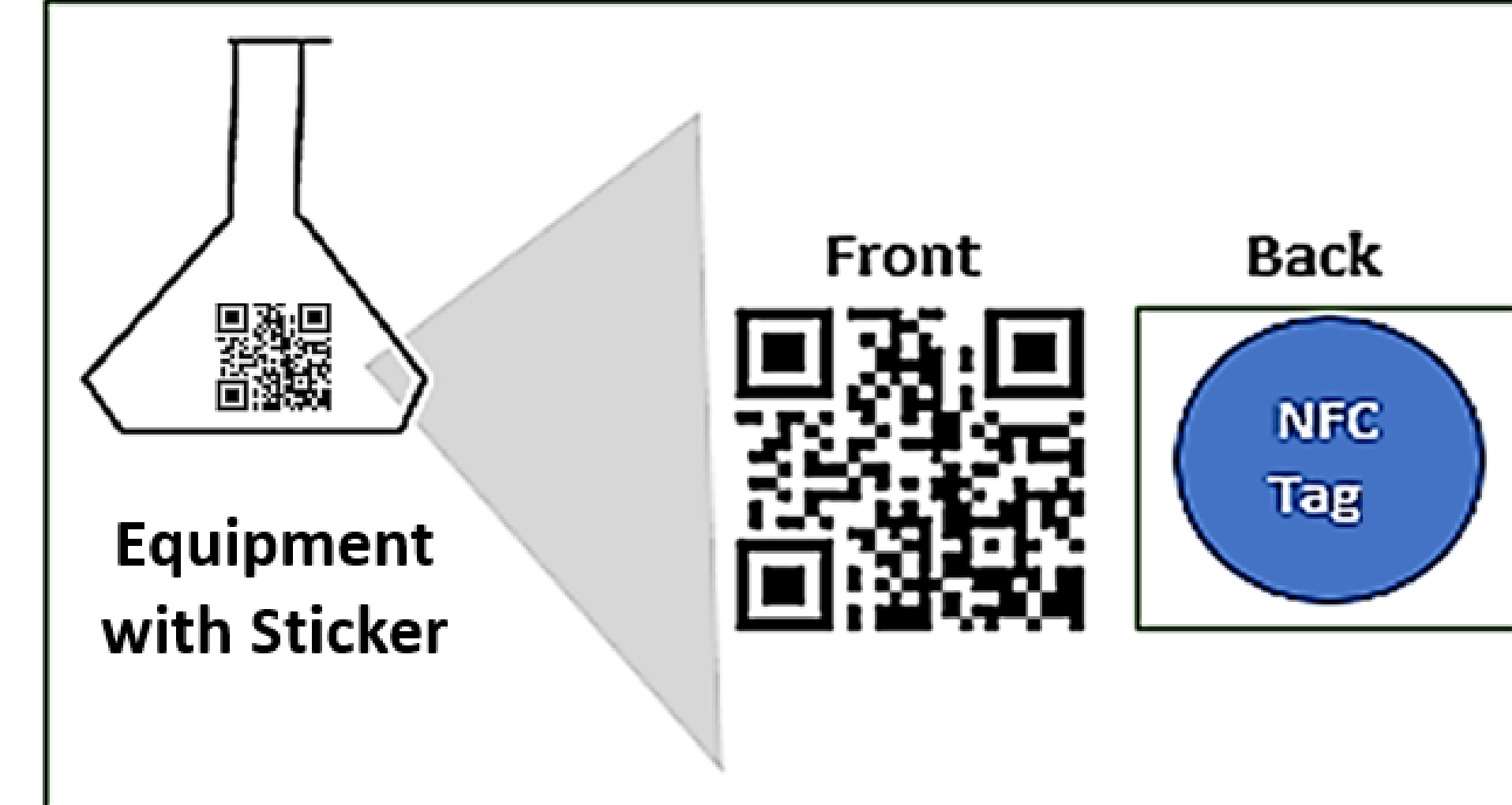
- Serious laboratory accidents have made **headlines**—due to **lack of proper safety training, procedures and awareness**.
- UofT's current lab safety culture protocol is hanging up laboratory safety posters on campus but this was **not effective** in building lab safety culture due to **lack of user engagement**.
- Create a **mobile app** to improve **lab safety culture among UofT community** by establishing new habit of identifying emerging laboratory risks.

Figure 1. An Accident Waiting to Happen? [Online Image]. (January, 2003). Retrieved March 18, 2017 from <https://tinyurl.com/mnx2yla>. Copyright 2003 by Marilee Ogren.

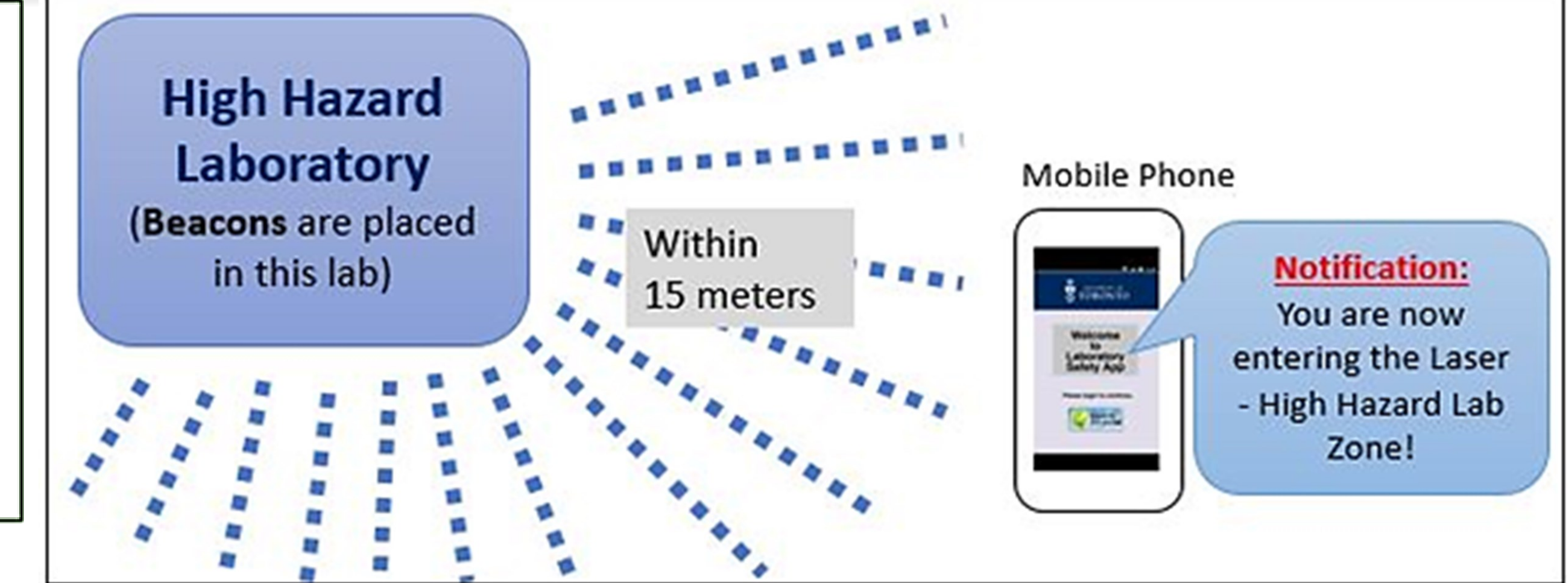
Project Requirements

- Notify user about the **potential hazards of the equipment** they use.
- **Tailor user's laboratory safety information** based on their **occupation**.
- Retain user's **personal information** (name, age, faculty, student ID).
- Provide a **list of hazardous material** and substance present in the lab.
- Remind users to complete **mandatory safety training**.
- Provide a **refresher quiz** for experienced users.
- Allow the users to **report accidents or unsafe practices** observed in the lab.
- Notify users when **high risk experiments** are conducted.
- Provide **previous lab accidents** Information.

Main Design Concepts



Pull Information: RFIDs attached to the laboratory equipment to provide **relevant safety information to the users** when they need it.



Push Information: Providing users with **information about emerging risks** that they may not know or need to be reminded of regarding a space (versus equipment).

Scope & Stakeholders

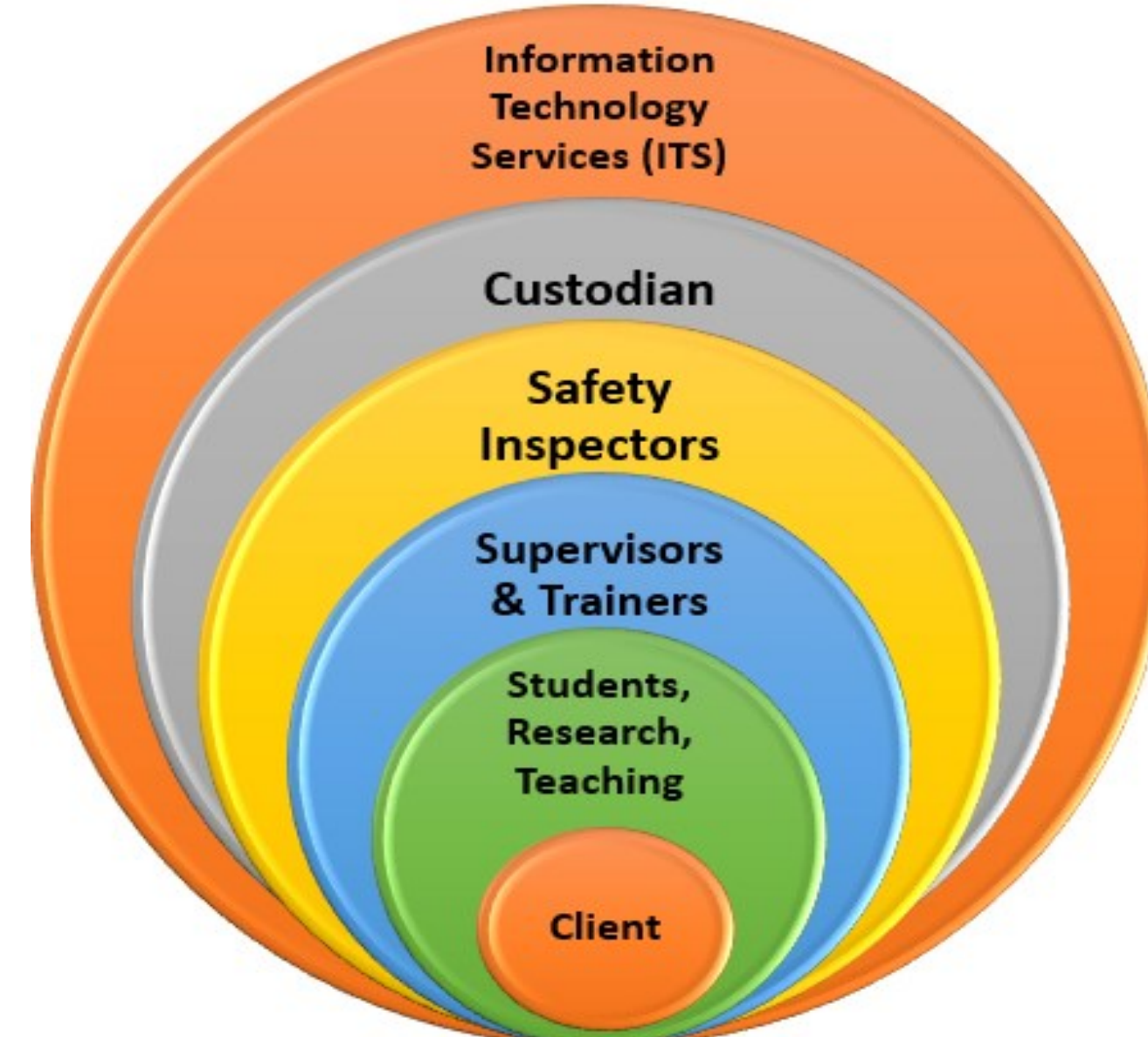
User Group

- Undergraduate and Graduate Students
- Researchers, Supervisors, Teaching Assistants

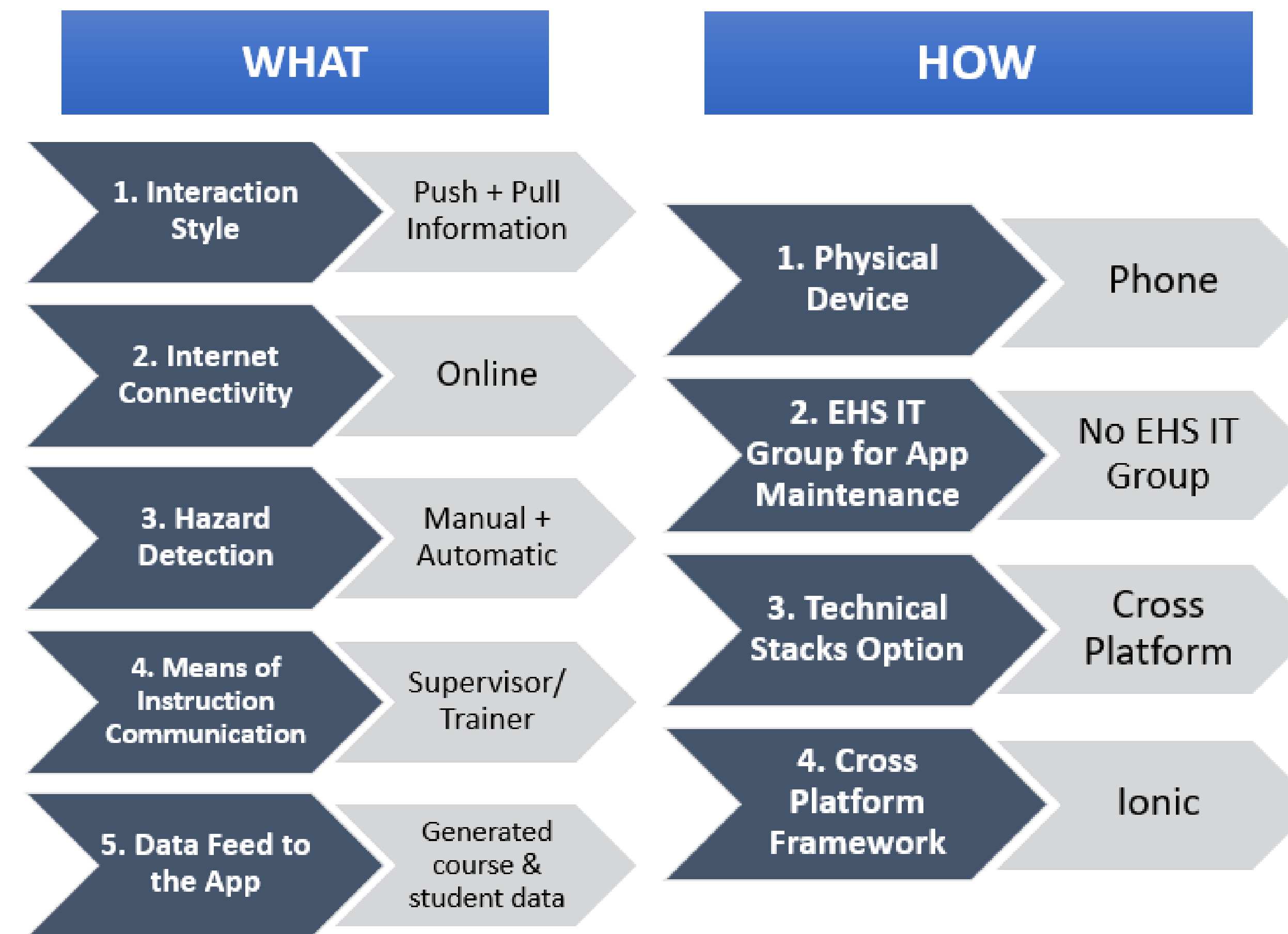
Minimum Viable Product

- Able to provide the users relevant safety information when they need it with minimum steps

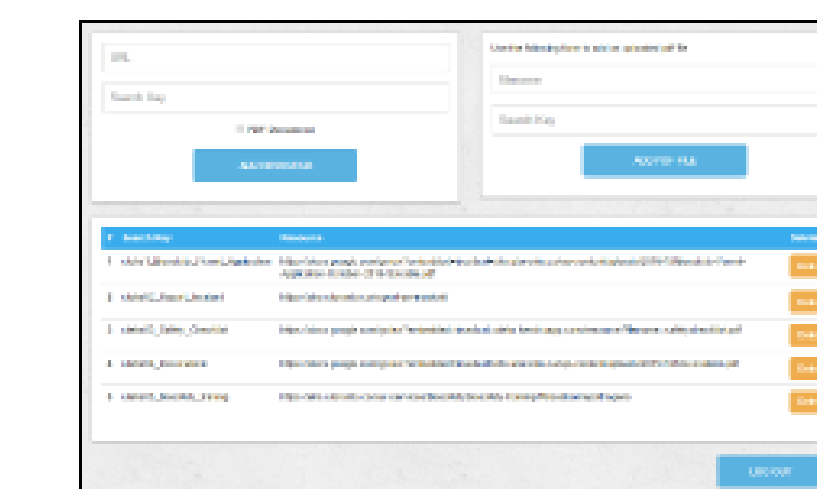
Stakeholders



Key Decisions



Current Implementation

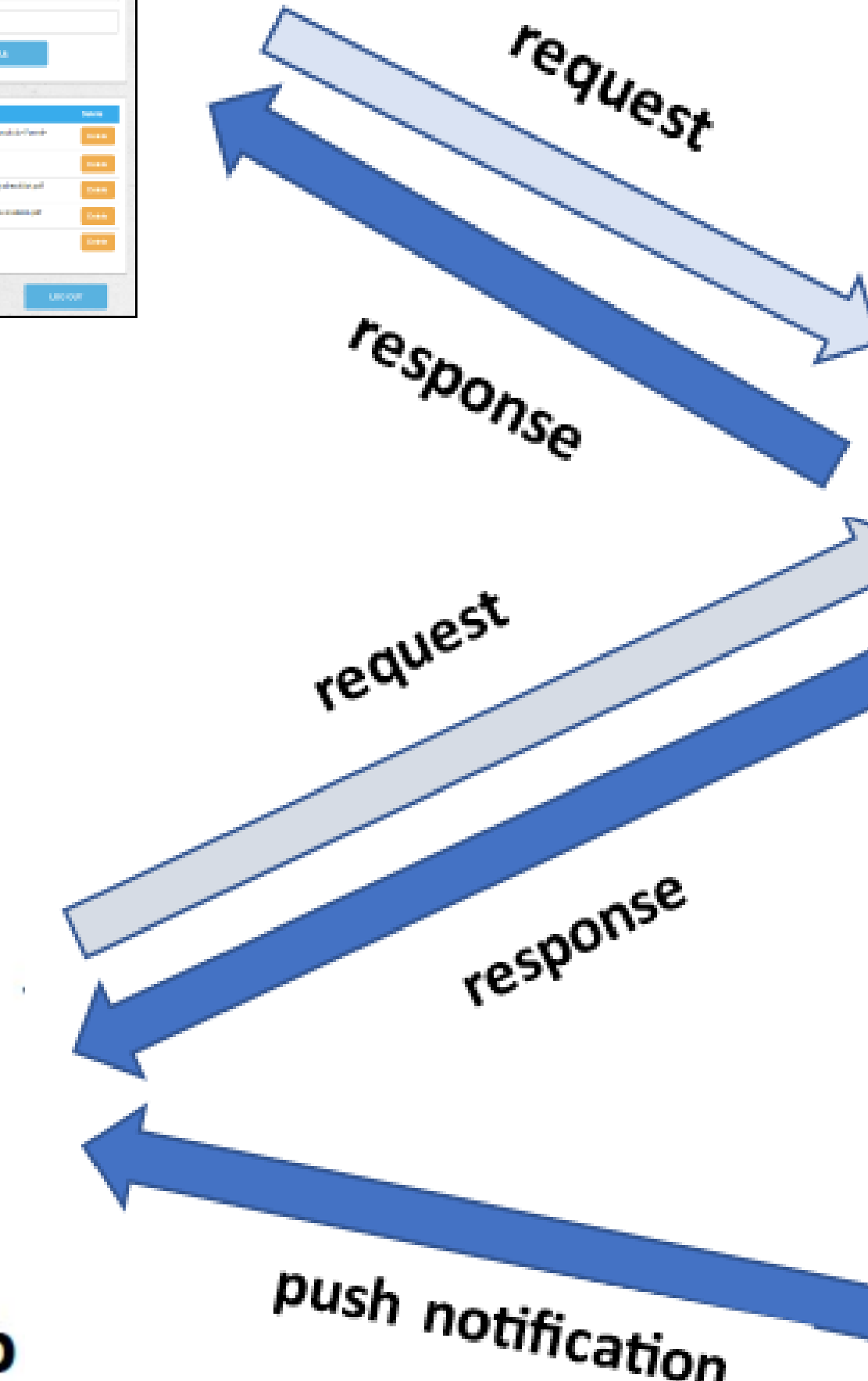


Website

(For Lab setup)



Mobile App



- Provide URL given key
- Provide stored notifications
- Provide user authentication information

Server 1



- Used to send push notification to selected users

Server 2



- All required information stored in the database

Database

