Project Design Phase-II
Technology Stack (Architecture & Stack)

Date	03 October 2022
Team ID	PNT2022TMID05098
Project Name	Containment Zone Alerting Application
Maximum Marks	4 Marks

Technical Architecture:

The Deliverable shall include the architectural diagram as below and the information as per the table1 & table
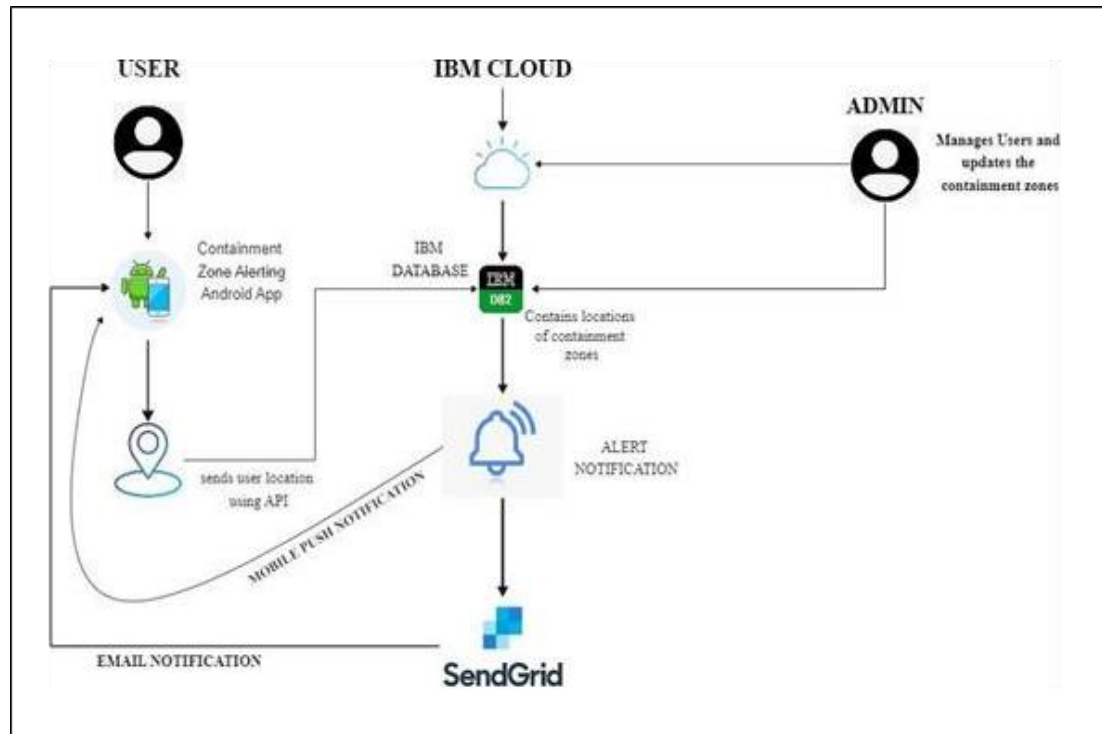
Guidelines:

1. Include all the processes (As an application logic / Technology Block)
2. Provide infrastructural demarcation (Local / Cloud)
3. Indicate external interfaces (third party API's etc.)
4. Indicate Data Storage components / services
5. Indicate interface to machine learning models (if applicable)

Table-1 : Components & Technologies:

S.No	Component	Description	Technology
1.	User Interface	The user can interacts with our application with the help of Chatbot, etc.	HTML, CSS, JavaScript
2.	Application Logic	The user can login with application, by previously registered in our web app.	Java / Python
3.	Cloud Database	The user data will be stored and retrieved with the help of this database.	IBM DB2
4.	File Storage	The user documents like personal details, tracking documents and much more will be stored in cloud bucket etc..,	IBM Block Storage or Other Storage Service or Local File system
5.	External API	With the help of API, the user can track the location	IBM API, etc.
6.	Infrastructure (Server / Cloud)	Application Deployment on Local System / Cloud	Local, Cloud Foundry, Kubernetes, etc.

Table-2: Application Characteristics:

S.No	Characteristics	Description	Technology
1.	Android Application	The android application is made using Android studio.	JAVA and XML
2.	Frameworks	Python – Flask framework is used for development of web services. Bootstrap for web designing.	Flask and Bootstrap
3.	Cloud	Cloud is used for managing the components of the application.	IBM Cloud and SQL
4.	Cloud Database	Cloud database is a database built to run in a public or hybrid cloud environment to help organize, store and manage data within an organization.	Technology used
5.	Container	Containers are packages of software that contain all of the necessary elements to run in any environment.	Technology used
6.	Website(Admin)	The admin website is used to manage all the things that are related to the software	HTML ,CSS ,Bootstrap ,JavaScript
7.	Security Implementation	Android application based Security cloud based security	Android Security ,HTTPS ,Cloud security like AES-256
8.	Availability	The application will be running on cloud and it is available 24*7	IBM Cloud
9.	performance	The performance of the application will be fast and responsive	Cloud based application

References:

https://c4model.com/

https://developer.ibm.com/patterns/online-order-processing-system-during-pandemic/

https://www.ibm.com/cloud/architecture

https://aws.amazon.com/architecture

https://medium.com/the-internal-startup/how-to-draw-useful-technical-architecture-diagrams-2d20c9fda90d