FINAL REPORT

CONTAINMENT ZONE ALERTING APPLICATION

TEAM ID: PNT2022TMID12464

KARPAGAM COLLEGE OF ENGINEERING

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BASE PAPER 1:

TRACKING THE COVID ZONES THROUGH GEO-FENCING TECHNIQUE

- ➤ Anto Arockia Rosaline R. Department of Information Technology, Rajalakshmi Engineering College, Chennai, India
- ➤ Lalitha R. Department of Computer Science and Engineering, Rajalakshmi Institute of Technology, Chennai, India
- ➤ Hariharan G. Department of Information Technology, Rajalakshmi Engineering College, Chennai, India,
- Lokesh N. Rax-Tech International, Chennai, India.

- ➤ Because of the outbreak of Covid 19, the entire world is thinking of new strategies, preventive measures to safeguard the human life from the widespread of the pandemic.
- ➤ The areas where people are affected are marked as containment zones and people are not allowed to exit out of those areas.
- ➤ Similarly, new people are not allowed to enter inside those areas. Hence, the purpose of this paper is to propose a methodology to track the Covid zones, to enhance and tighten the security measures.
- ➤ A geo-fence is created for the containment zone.
- ➤ The person who enters or exits out of that particular zone will be monitored and alert message will be sent to that person's mobile.
- After tracking the location of a suspicious individual, the geofenced layer is mapped in the area and then the virtual perimeter is used for further trapping process.
- ➤ This geofenced layer can be viewed by the citizens as soon as it is updated by the Covid monitoring team.
- ➤ The geofencing is a concept of building a virtual perimeter area.
- ➤ This virtual perimeter monitoring system helps in monitoring the containment zones effectively.

- ➤ It reduces operational costs by using an automated system based on wireless infrastructure. It also alerts the authorities immediately to catch the violators.
- ➤ Thus, it helps to speed up the process of inspecting the containment zones and monitoring the individuals who violate the rules given by government.

BASEPAPER 2:

A CASE STUDY FOR ASSURED CONTAINMENT

- > Kelly J. Hayhurst
- > Jeffrey M. Maddalon
- ➤ Natasha A. Neogi NASA Langley Research Center NASA Hampton, Virginia USA

- ➤ While incremental steps are being taken to integrate unmanned aircraft systems (UAS) into the various national airspace systems, much work remains to establish appropriate regulatory infrastructure that allows UAS larger than 55 lb to operate for commerce.
- ➤ The magnitude of that effort is compounded by the wideranging variety of UAS types and possible applications, as well as the diversity in quality and provenance of UAS components.
- ➤ The FAA has suggested developing design standards tailored to specific applications and operating environments as an approach to facilitate integration and safe operation of some UAS.
- ➤ This paper introduces a case study to investigate design standards for a midsize unmanned rotorcraft operating in a rural environment. A key aspect of this study is the concept of using a certifiable containment system, different from a conventional

- geofencing application, to ensure that the unmanned aircraft does not escape its intended operational area.
- ➤ The proposed assured containment system is expected to reduce the effort needed to regulate some UAS that could not currently meet rigorous aircraft design standards and fall outside of the parameters for operation outlined in the proposed small UAS rule.
- ➤ This paper discusses how assured containment may be a useful approach to limiting risk and reducing an otherwise prohibitive certification burden to enable UAS operations in confined areas.
- ➤ The case study examines the potential effect the assured containment approach might.

BASEPAPER 3:

A SURVEY OF COVID-19 CONTACT TRACING APP

- Cyber Security Cooperative Research Centre (CSCRC), Perth, WA 6027, Australia
- ➤ School of Computer Science and Engineering (CSE), University of New South Wales (UNSW), Sydney, NSW 2052, Australia
- ➤ CSIRO Data61, Marsfield, Sydney, NSW 2122, Australia
- ➤ School of Electrical Engineering and Telecommunications (EE&T), University of New South Wales (UNSW), Sydney, NSW 2052, Australia
- ➤ ECU Security Research Institute (ECUSRI), Edith Cowan University, Perth, WA 6027, Australia

ABSTRACT:

➤ The recent outbreak of COVID-19 has taken the world by surprise, forcing lockdowns and straining public health care systems.

- ➤ COVID-19 is known to be a highly infectious virus, and infected individuals do not initially exhibit symptoms, while some remain asymptomatic.
- ➤ Thus, a non-negligible fraction of the population can, at any given time, be a hidden source of transmissions.
- ➤ In response, many governments have shown great interest in smartphone contact tracing apps that help automate the difficult task of tracing all recent contacts of newly identified infected individuals.
- ➤ However, tracing apps have generated much discussion around their key attributes, including system architecture, data management, privacy, security, proximity estimation, and attack vulnerability.
- ➤ In this article, we provide the first comprehensive review of these much-discussed tracing app attributes.
- ➤ We also present an overview of many proposed tracing app examples, some of which have been deployed countrywide, and discuss the concerns users have reported regarding their usage.
- ➤ We close by outlining potential research directions for nextgeneration app design, which would facilitate improved tracing and security performance, as well as wide adoption by the population at large.

BASEPAPER 4:

DEVELOPMENT OF AN ANDROID APPLICATION FOR VIEWING COVID-19 CONTAINMENT ZONES AND MONITORING VIOLATORS WHO ARE TRESPASSING INTO IT USING FIREBASE AND GEOFENCING

- ➤ Ranajoy Mallik (◊ wranajoy@gmail.com)Jadavpur University https://orcid.org/0000-0002-9043-6312
- ➤ Amlan Protim Hazarika Jadavpur University
- > Sudarshana Ghosh Jadavpur University
- ➤ Dilip Sing Jadavpur University
- ➤ Rajib Bandyopadhyay Jadavpur University

- ➤ The World Health Organization has declared the outbreak of the novel coronavirus, COVID-19 as pandemic across the world.
- ➤ With its alarming surge of affected cases throughout the world, lockdown and awareness (social distancing, use of masks etc) among people are found to be the only means for restricting the community transmission.
- ➤ In a densely populated country like India, it is very difficult to prevent the community transmission even during lockdown without social awareness and precautionary measures taken by the people. Recently, several containment zones had been identified throughout the country and divided into red, orange and green zones, respectively.
- ➤ The red zones indicate the infection hotspots, orange zones denote some infection and green zones indicate an area with no infection.
- ➤ This paper mainly focuses on development of an Android application which can inform people of the COVID-19 containment zones and prevent trespassing into these zones.
- ➤ This Android application updates the locations of the areas in a Google map which are identified to be the containment zones.

- ➤ The application also notifies the users if they have entered a containment zone and uploads the user's IMEI number to the online database. With this IMEI number, the police can keep an eye on the people who are frequently violating the lockdown rules.
- ➤ To achieve all these functionalities, many tools and APIs from Google like Firebase and Geofence are used in this app.
- ➤ Therefore, this application can be used as a tool for creating further social awareness about the arising need of precautionary measures to be taken by the people.

BASEPAPER 5:

TECHNOLOGICAL AND ANALYTICAL REVIEW OF CONTACT TRACING APPS FOR COVID-19 MANAGEMENT

Rajan Gupta, Gaurav Pandey, Poonam Chaudhary & Saibal K Pal

- ➤ Role of technology is improving for COVID-19 management all around the world.
- ➤ Usage of mobile applications, web applications, cloud computing, and related technologies have helped many public administrators worldwide manage the current pandemic.
- ➤ Contact tracing applications are such mobile app solutions that are used by more than 100 countries today.
- ➤ This study presents a structured research reviewbased framework related to multiple contact tracing applications.

- ➤ The various components of the framework are related to technological working, design architecture, and feature analysis of the applications, along with the analysis of the acceptance of such applications worldwide.
- Also, components focusing on the security features and analysis of these applications based on Data Privacy, Security Vetting, and different attacks have been included in the research framework.
- ➤ Many applications are yet to explore the analytical capabilities of the data generated through contact tracing.
- ➤ The various use-cases identified for these applications are detecting positive case probability, identifying a containment zone in the country, finding regional hotspots, monitoring public events & gatherings, identifying sensitive routes, and allocating resources in various regions during the pandemic.
- This study will act as a guide for the users researching contact tracings applications using the proposed four-layered framework for their app assessment

BASEPAPER 6:

APPLICATION FOR COVID-19 REAL TIME COUNTER

- ➤ Omkar Dhok, Yash Dasouni, Harsh Dubey, Prasanna
- ➤ International Journal of Research in Engineering and Science (IJRES)

- ➤ The World Health Organization has declared the outbreak of the novel coronavirus, Covid-19 as pandemic across the world.
- ➤ With its alarming surge of affected cases throughout the world, lockdown, and awareness (social distancing, use of masks etc.)

- among people are found to be the only means for restricting the community transmission.
- ➤ In a densely populated country like India, it is very difficult to prevent the community transmission even during lockdown without social awareness and precautionary measures taken by the people.
- ➤ Recently, several containment zones had been identified throughout the country and divided into red, orange and green zones, respectively.
- ➤ The red zones indicate the infection hotspots, orange zones denote some infection and green zones indicate an area with no infection.
- ➤ This paper mainly focuses on development of an Android application which can inform people of the Covid-19 containment zones and prevent trespassing into these zones.
- ➤ This Android application updates the locations of the areas in a Google map which are identified to be the containment zones.
- ➤ The application also notifies the users if they have entered a containment zone and uploads the user's IMEI number to the online database.
- ➤ To achieve all these functionalities, many tools, and APIs from Google like Firebase and Geofencing API are used in this application.
- ➤ Therefore, this application can be used as a tool for creating further social awareness about the arising need of precautionary measures to be taken by the people of India.

BASEPAPER 7:

GEOFENCING REQUIREMENTS FOR ONBOARD SAFE OPERATION MONITORING

- ➤ Christoph Torens1 ·
- ➤ Florian Nikodem1 ·
- ➤ Johann C. Dauer1 ·
- ➤ Sebastian Schirmer1 ·
- ➤ Jörg S. Dittrich1

- ➤ The new concept for operation of drones, published by EASA in 2015, enables new ways to infuence and possibly reduce the necessary safety targets of certain system components without reducing the overall safety of the unmanned aircraft system (UAS).
- ➤ Based on the safety assessment, the specifc category enables new aircraft system architectures and mission designs.
- ➤ In this context, this paper analyzes runtime monitoring as a strategy to contain the UAS in its operational volume.
- ➤ To assure predefined properties in fight and thus assure the safety of the operation in progress with a high robustness, a formal methodology for safe operation monitoring is utilized.
- ➤ With this approach, this work targets to link the concept of safe operation monitoring with the upcoming regulations regarding the specifc category and the specifc operation risk assessment.
- ➤ monitoring is geofencing, the capability to contain a UAS in a previously restricted area. In the regulatory framework of a specifc operation, risk assessment is required and so is the containment of the UAS in its operational volume.
- ➤ The functional and safety requirements for geofencing regarding their impact on the underlying specifc operation risk assessment are discussed.

- ➤ To facilitate this discussion, a taxonomy of geofencing characteristics is derived based on a literature survey.
- ➤ Consequently, the geofencing requirements are assessed regarding their robustness and applicability for certification purposes.
- As a result, by monitoring the integrity of the system at runtime using geofencing as an example, it is investigated if the requirements and thus costs of development and certification process for the remaining components can be reduced.

BASEPAPER 8:

COVID-19 HOME QUARANTINE ENFORCEMENT

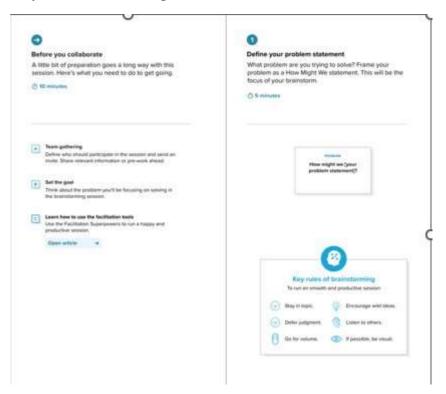
- Jiajie Tan,
- > Edmund Sumpena,
- > Weipeng Zhuo,
- ➤ Ziqi Zhao,
- > Mengyun Liu, and
- ➤ S.-H. Gary Chan

- ➤ Containment is the first-priority measure in infection control to curb the spread of highly infectious diseases such as COVID-19.
- ➤ Home quarantine is one such measure to keep people at their accommodations for the incubation period (typically 14 days).
- ➤ Compared to dedicated monitoring centers, home quarantine is a more cost-effective and comfortable approach to isolate a large number of low-risk people.

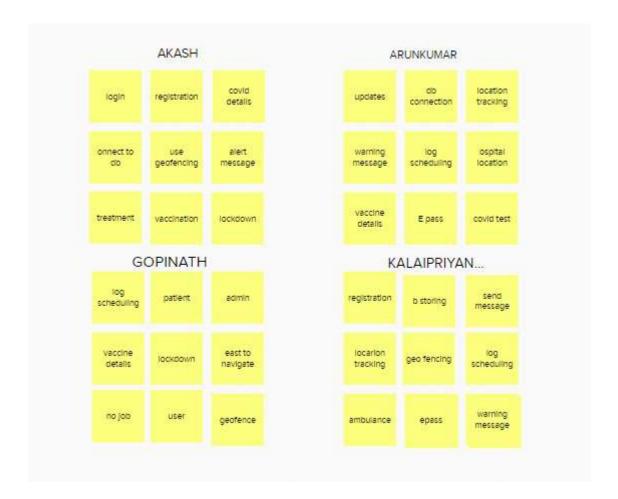
- ➤ However, efficient monitoring of confinees inside their accommodations is a challenging problem because the quarantined locations are scattered throughout the city.
- ➤ We propose and study SignatureHome, an automated IoT-based geofencing algorithm to cost-effectively monitor confinees.
- ➤ The core principles of SignatureHome was adopted by the Hong Kong government and implemented as an app to enforce home quarantine order in March 2020 for hundreds of thousands of entrants from other regions.
- The system employs waterproof Bluetooth Low Energy wristbands that are uniquely paired with the confinees' smartphones. SignatureHome uses the identifiers of the environmental network facilities (Wi-Fi access points and cellular networks) as the home signature.
- ➤ By comparing the current observed signals of the phone with the home signature, the algorithm can efficiently determine whether the user is within the geofenced area. SignatureHome is computationally efficient, responsive, privacy-preserving, cost-effective, and adaptive to home diversity and changing environments.
- ➤ Our experimental results validate its design and high accuracy in terms of precision, recall, F-measure, and false alarm rate.

Ideation Phase Brainstorm & Idea Prioritization

Step-1: Team Gathering, Collaboration and Select the Problem Statement



Step-2: Brainstorm, Idea Listing and Grouping



STEP 3: GROUP IDEAS

Group ideas

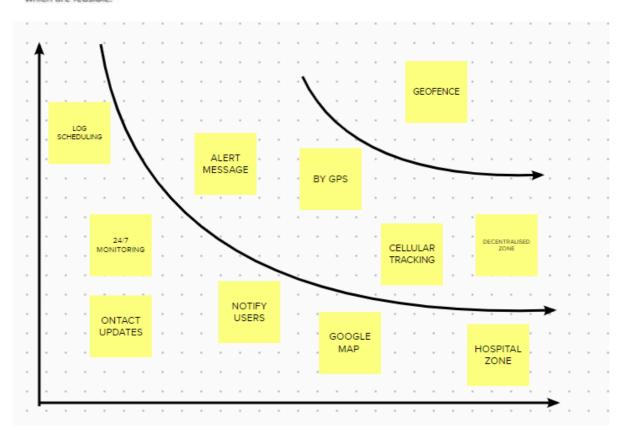
Take turns sharing your ideas while clustering similar or related notes as you go. In the last 10 minutes, give each cluster a sentence-like label. If a cluster is bigger than six sticky notes, try and see if you and break it up into smaller sub-groups.



Step-4: Idea Prioritization

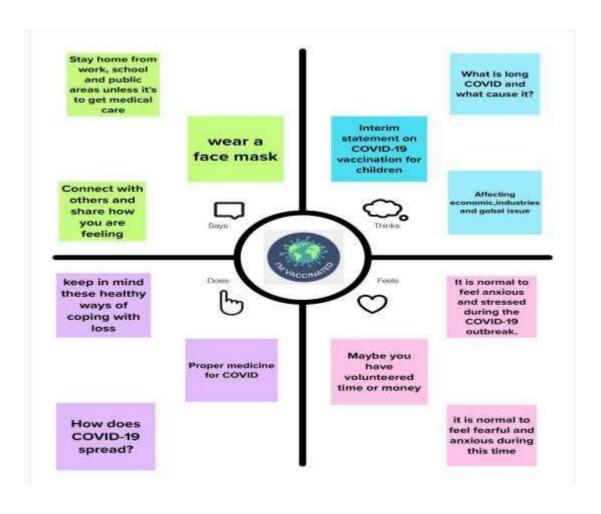
Prioritize

Your team should all be on the same page about what's important moving forward. Place your ideas on this grid to determine which ideas are important and which are feasible.



EMPATHY MAP:

TEAM ID:PNT2022TMID12464



PROJECT DESIGN PHASE - I

PROPOSED SOLUTION

Date	04/11/ 2022
Team ID	PNT2022TMID12464
Project Name	Containment Zone Alerting Application
Maximum Marks	2 Marks

Project team shall fill the following information:

•	Idea / Solution description	Constant updation of result collected from the testing center about the affected people can be merged with the application. We intend to collaborate our application with google map to locate the containment zone.
•	Novelty / Uniqueness	It will alert the user before reaching the place using the current location of the user ,whether the place is affected or not . If affected it will enroute alternate way.
•	Social Impact / Customer Satisfaction	This project will satisfy the customer need . For example: Suppose if we travel to a place where a specific area is affected by covid this application will alert the user(customer) which intern reduces the cause of infection by the affected people.
•	Business Model (Revenue Model)	1.No.of users downloading the application 2.In association with pharmacy(telemedicine) 3.Internet usage

PROJECT DESIGN PHASE - I

PROBLEM SOLUTION FIT

Date	04/11/2022
Team ID	PNT2022TMID12464
Project Name	CONTAINMENT ZONE ALERTING APPLICATION
Maximum Marks	2 Marks







PROJECT DESIGN PHASE - I

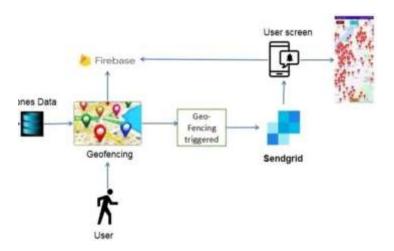
SOLUTION ARCHITECTURE

Date	04/11/2022
Team ID	PNT2022TMID12464
Project Name	Containment Zone Alerting Application
Maximum Marks	4 Marks

SOLUTION ARCHITECTURE:

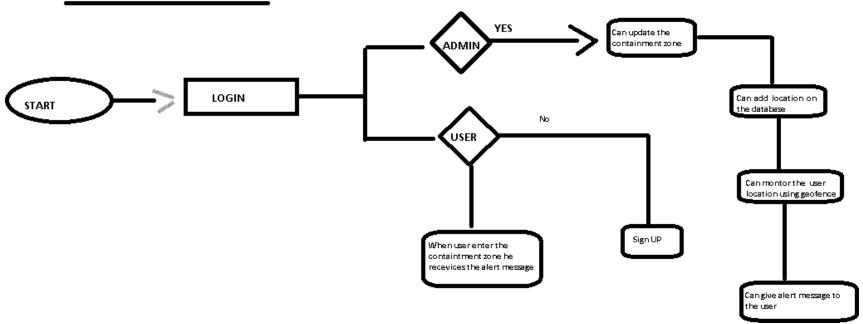
- > Solution architecture is a complex process with many sub processes that bridges the gap betweenbusiness problems and technology solutions.
- > To find the best tech solution to solve existing business problems.
- > Describe the structure ,characteristics ,behavior ,and other aspects of the software to projects takeholders.

Example for Solution Architecture:



NSIDERATION	AWARENESS	PURCHASE	ONBOARDING
VIEW ONLINE AD	WEBSITE PHONES	PURCHASE	SERVICE
НАРРҮ	SAD	WORRIED	ANGERED
MONTH	YEAR	DECREASE	INCREASE
SERVICE	DEVELOPMENT	OMMUNICATIONS	SATISFICATION
,	VIEW DNLINE AD HAPPY	VIEW DILINE AD WEBSITE PHONES HAPPY SAD WONTH YEAR	VIEW DILINE AD WORRIED HAPPY SAD WORRIED WONTH YEAR DECREASE

DATA FLOW DIAGRAM



Project Design Phase-II Functional Requirements (Functional & Non-Functional)

Date	3 November 2022
Team ID	PNT2022TMID12464
Project Name	Containment Zone Alerting Application
Maximum Marks	4 Marks

Functional Requirements:

The following are the functional requirements of the proposed solution.

FR.No.	Functional Requirements	Sub Requirements
F-1	User Registration	Registration through user mobile number.
F-2	User Confirmation	Confirmation via number Confirmation via OTP
F-3	Hospital registration	Registration through form using Hospital ID
F-4	Hospital Entry	Collecting case data and storing it in the Database Doctors for medical consultation.
F-5	Permissions	Location, Storage, Contacts
F-6	Subscription	Taking special care of subscription members and monitoring their day-to-day activity.
F-7	Chat Bot	Minimal medical Suggestions Product sales

Non-functional Requirements:

The following are the non-functional requirements of the proposed solution.

F.No.	Non-Functional Requirements	Description	
NF-1	Usability	People can use this app to track the contaminated zone and take precautions before they are affected while travelling	
NF-2	Security	Using "Geofencing technology for location anddata encryption" to protect data.	
NF-3	Reliability	valid medical suggestions and proper guidance is given in the application.	
NF-4	Performance	The geo-fencing algorithm is updated daily and shows the day-to-day updates of the contaminated zones using log scheduling.	
NF-5	Availability	Medicinal Recommendations, Test kits, Doctor suggestions in the Contaminated zones are available in applications.	
NF-6	Scalability	Users are provided with medical services online and giving awareness to people by giving therapeutic medicines Also monitoring the movements in pandemic zones and alerts before they are affected.	

TECHNOLOGY ARCHITECTURE

Team ID	PNT2022TMID12464
Project Name	CONTAINMENT ZONE ALERTING APPLICATION

TECHNICAL ARCHITECTURE:

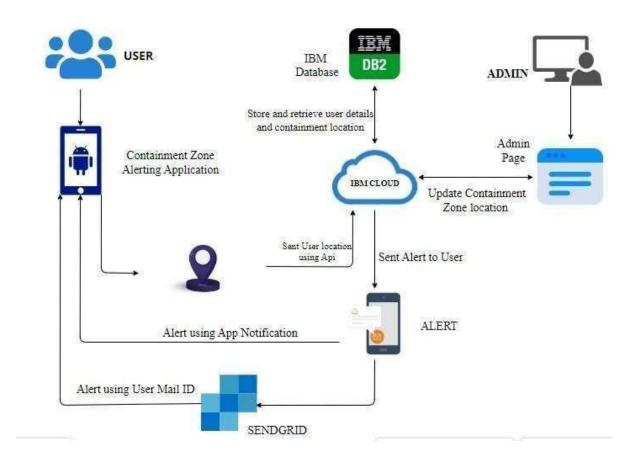


Table-1: Components & Technologies:

S. No	Component	Description	Technology
1.	User Interface	How user interacts with application e.g. Web UI, Mobile App, Chatbot etc.	HTML, CSS, Java, XML, JavaScript / Angular Js / React Js etc.
2.	Application Logic-1	Logic for a process in the application	Java / Python-Flask
5.	Database	Data Type, Configurations etc.	MySQL, NoSQL, etc.
6.	Cloud Database	Database Service on Cloud	IBM DB2, IBM Cloudant etc.
7.	File Storage	File storage requirements	IBM Cloud Object Storage

Table-2: Application Characteristics:

S. No	Characteristics	Description	Technology
1.	Android Application	The android application is made using Android Studio.	JAVA and XML
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.	IBM DB2 and IBM Cloud Object Storage
5.	Container	Containers are packages of software that contain all of the necessary elements to run in any environment.	IBM Container Registry
6.	Website (Admin)	The admin website is used to manage all the things related to the software.	HTML, CSS, Bootstrap, JavaScript
8.	Availability	The application will be running on cloud and it is available 24x7.	IBM Cloud
9.	Performance	The performance of the application will be fast and responsive.	Cloud based application

Project Planning Phase Milestone and Activity List

Date	4/11/2022
Team ID	PNT2022TMID12464
Project Name	CONTAINMENT ZONE ALERTING APPLICATION

TITLE	DESCRIPTION	DATE
Literature SURVEY	Literature survey on the selected project by gathering information.	24 OCTOBER 2022
Empathy Map	Prepare Empathy Map Canvas to capture the user	24 OCTOBER 2022
Ideation	List the by organizing the brainstorming session To prioritize the top 3 ideas based on the feasibility & importance.	24 OCTOBER 2022
Proposed Solution	Prepare the proposed solutiondocument.	28 OCTOBER 2022
Problem Solution Fit	Prepare problem - solution fit.	30 OCTOBER2022
Solution Architecture	Prepare solution architecture.	30 OCTOBER 2022

Customer Journey	Prepare the customer journey maps to understand the user interactions & experiences.	30 OCTOBER 2022
Functional Requirements	Prepare the functional requirements document.	30 OCTOBER 2022
Data Flow Diagrams	Draw the data flow diagrams. submit for review.	30 OCTOBER 2022
Technology Architecture	Prepare the technology architecture diagram for the project	30 OCTOBER 2022
Prepare Milestone & activityList	Prepare the milestones & activitylist of the project.	4 NOVEMBER 2022
Project Delivery of Sprint-1, 2, 3 & 4	Develop and submit the developed code by testing it.	4 NOVEMBER 2022

Project Planning Phase

SPRINT DELIVERY PLAN

Date	4/11/ 2022
Team ID	PNT2022TMID12464
Project Name	CONTAINMENT ZONE ALERTING APPLICATION
Maximum Marks	8 Marks

PRODUCT BACKLOG, SPRINT SCHEDULE, AND ESTIMATION (4 MARKS)

Sprint	Functional Requirement (Epic)	User User Story / Task Story Number		Story Points	Priority	Team Members
		UN-1	User: I can register by entering my email, password and verifying password.	3	High	AKASH P
	Registration	UN-2	User: I will receive a confirmation email once that I have registered for the application.	2	High	ARUNKUMAR D
Sprint-1		UN-3	User: I can register for the application through Gmail.	5	Medium	GOPINATH U
		UN-4	Management: I need to register my hospitals on the site.	2	High	KALAIPRIYAN C
		UN-5	User: I can log into the application by entering my email & password	3	High	AKASH P
	Login	UN-6	Management: I need to login into my dashboard with my given hospital id	5	Medium	ARUNKUMAR D
	Dashboard	UN-7	User: I need to give permission to access my Contacts, Location, and Storage	5	High	GOPINATH U

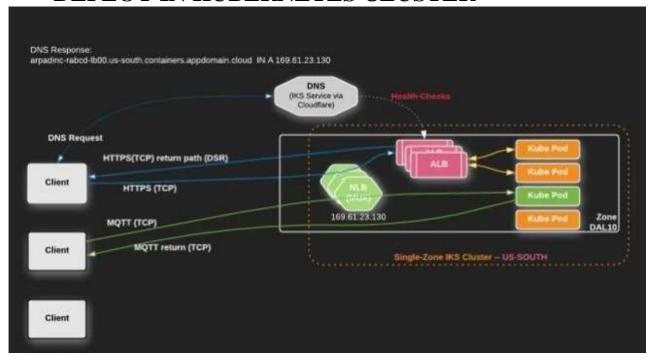
Sprint	t Functional User User Story / Task Requirement (Epic) Story Number		Story Points	Priority	Team Members	
		UN-8	User: I get access to the dashboard which shows a map with containment zones	5	High	KALAIPRIYAN C
Sprint-2		UN-9	Management: I need to enter the case information of the patient that visits our hospital.	5	High	AKASH P
	Services	UN-10	Admin: I need to provide valid information about the pandemic out there.	5	High	ARUNKUMAR D
Sprint-3	Dashboard	UN-11	Management: I need to store all the patient information on the cloud.	5	High	GOPINATH U
	Services	UN-12	Admin: I need to provide medical advice through a chatbot.	5	Medium	KALAIPRIYAN C
		UN-13	Admin: I need to provide medical recommendations by collaborating with top hospitals.	5	Low	AKASH P
		UN-14	Admin: I need to provide preventive measures when they travel through it.	5	High	ARUNKUMAR D
Sprint-4	Registration	UN-15	User: I can register for the application through Facebook.	2	Low	GOPINATH U
		UN-16	User: I can register for the application through Twitter.	2	Low	KALAIPRIYAN C
	Services	UN-17	Admin: I need to alert the user when they enter pandemic zones.	3	Medium	AKASH P
		UN-18	Admin: I need to provide special services for premium users by giving services like monitoring health by theirsmart bands.	3	Low	ARUNKUMAR D
	Data Collection	UN-19	Admin: I need to store all the user sinformation on the cloud	5	Medium	GOPINATH U

Sprint	Functional Requirement (Epic)	User Story Number	User Story / Task	Story Points	Priority	Team Members
		UN-20	Admin: I need to collect the recent list of affected persons.	5	Low	KALAIPRIYAN C

Project Tracker, Velocity & Burndown Chart: (4 Marks)

Sprint	Total Story Points	Duration	Sprint Start Date	Sprint End Date (Planned)	Story Points Completed (as on Planned End Date)	Sprint Release Date (Actual)
Sprint-1	20	6 Days	24 Oct 2022	30 Oct 2022	20	31 Oct 2022
Sprint-2	20	6 Days	30Oct 2022	05 Nov 2022	20	05 Nov 2022
Sprint-3	20	6 Days	07 Nov 2022	12 Nov 2022	20	12 Nov 2022
Sprint-4	20	6 Days	14 Nov 2022	19 Nov 2022	20	19 Nov 2022

DEPLOY IN KUBERNETES CLUSTER

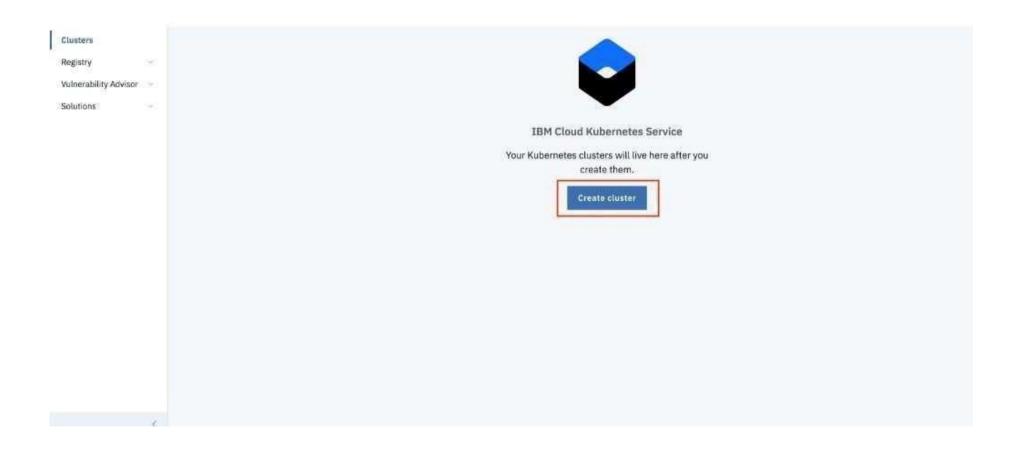


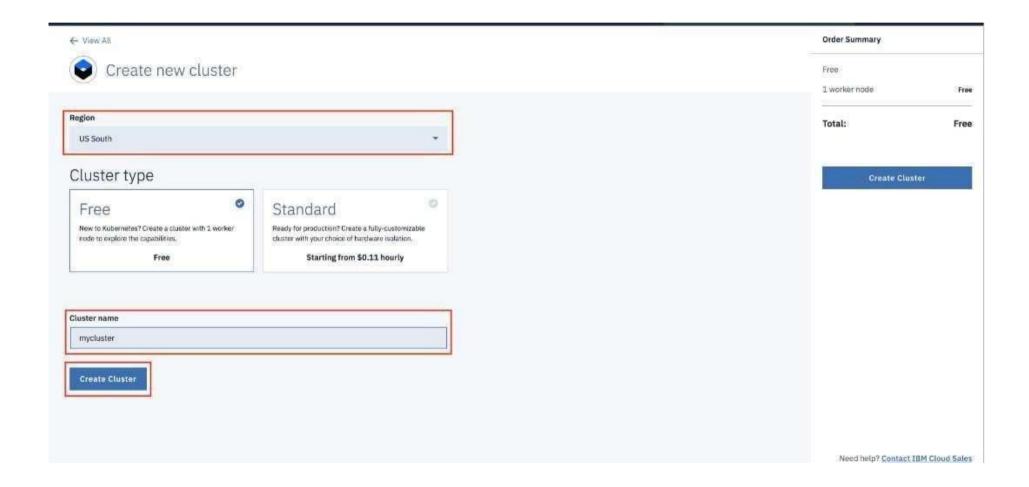
```
Hostname: echoserver-deployment-859b75d8c4-w75jn
Pod Information:
                       10.94.21,13
       node name:
       pod name:
                       echoserver-deployment-859675d8c4-w75jn
       pod namespace: default
       pod IP: 172.30.45.7
Server values:
        server_version-nginx: 1.13.3 - lua: 10008
Request Information:
       client_address=172.30.45.5
       method=GET
       real path=/
       query-
       request_version=1.1
       request_scheme-http
       request_url=http://echoserver.arpad-ipvs-test-aug14.us-south.containers.appdomain.cloud:8080/
Request Headers:
       accept=*/*
       host-echoserver.arpad-ipvs-test-aug14.us-south.containers.appdomain.cloud
       user-ogent-curl/7.54.8
       x-forwarded-for=195.21
       x-forwarded-hast-echaserver.arpad-ipvs-test-aug14.us-south.containers.appdomain.cloud
       x-forwarded-port=443
       x-forwarded-proto-https
       x-global-k8fdic-transaction-id-fc9b6dlfaac1b7b63bf96abf02396378
x-real-ip=195.21
Request Body:
        -no body in request-
```

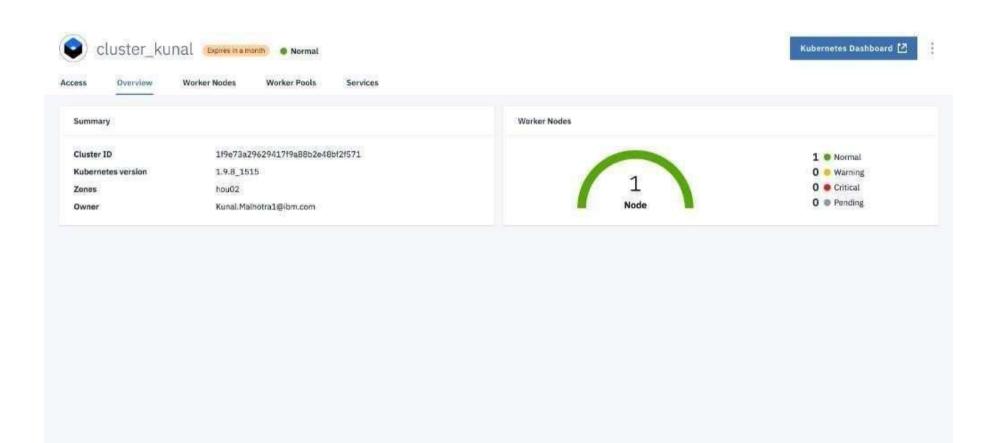
```
$ curl http://169.61.18.4:1884
Hostname: echoserver-deployment-859b75d8c4-r6s62
Pod Information:
       node name: 10.73.115.27
       pod name: echoserver-deployment-859b75d8c4-r6s62
       pod namespace: default
       pod IP: 172.30.154.209
Server values:
       server_version=nginx: 1.13.3 - lua: 10008
Request Information:
        client_address=195.21
       method=GET
       real path=/
       query=
       request_version=1.1
       request_scheme=http
       request_uri=http://169.61.18.4:8080/
Request Headers:
       accept=*/*
       host=169.61.18.4:1884
       user-agent=curl/7.54.0
Request Body:
       -no body in request-
```

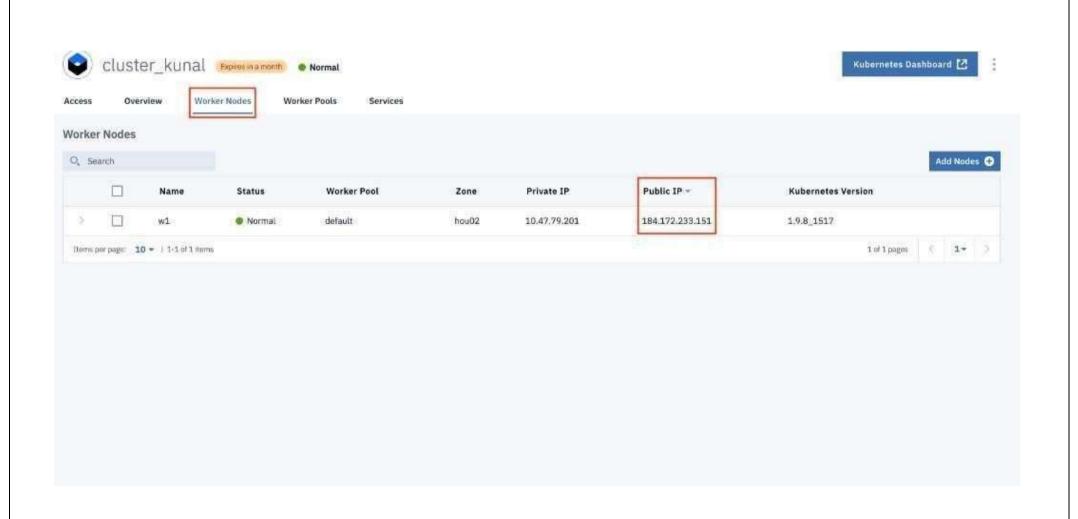
```
$ curl https://echaserver.arpad-ipvs-test-aug14.us-south.containers.appdomain.cloud
Hostname: echoserver-deployment-859b75d8c4-d6fdx
Pod Information:
        node name:
                        10.73.115.19
                        echoserver-deployment-859b7Sd8c4-d6fdx
        pod name:
        pod namespace: default
        pod IP: 172.30.116.132
Server values:
        server_version-nginx: 1:13.3 - lua: 10008
Request Information:
        client_oddress=172.30.119.129
method=GET
        real path=/
        query-
        request_version=1.1
        request_scheme=http
        request_uri=http://echoserver.arpad-ipvs-test-aug14.us-south.containers.appdomain.cloud:8080/
Request Headers:
        accept=*/*
        host-echoserver.arpad-ipvs-test-aug14.us-south.containers.appdomain.cloud
        user-agent-curl/7.54.0
        x-forwarded-for=10.184.100.58
        x-forwarded-host-echoserver.arpad-ipvs-test-aug14.us-south.containers.appdomain.cloud
        x-forwarded-port=443
        x-forwarded-proto=https
x-global-k8fdic-transaction-id=838e6708691877ea4ac7448370362e22
        x-real-ip=18.184.100.58
Request Body:
       -no body in request-
```

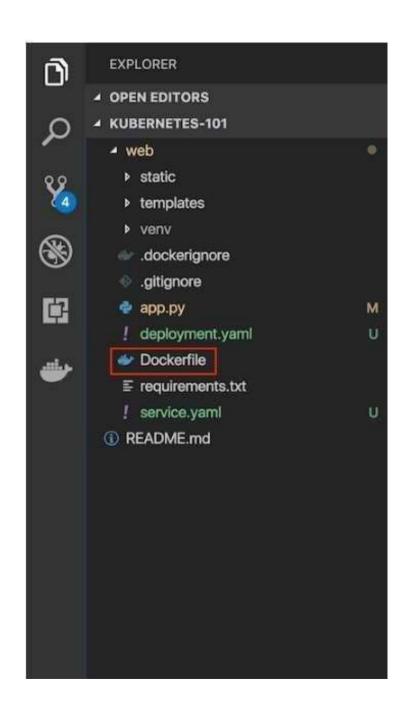
UPLOAD IMAGE TO IBM CONTAINER REGISTRY



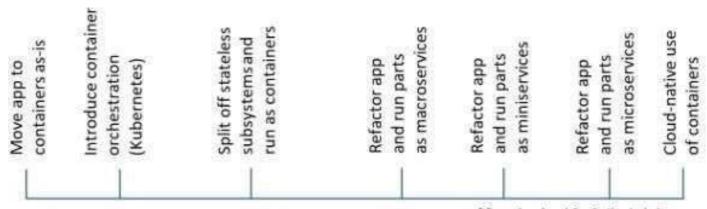








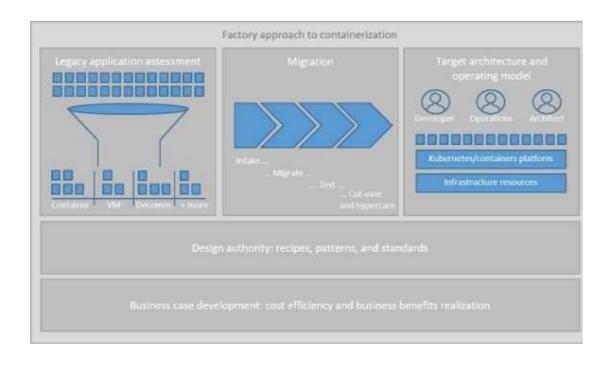
CONTAINERIZE THE APP



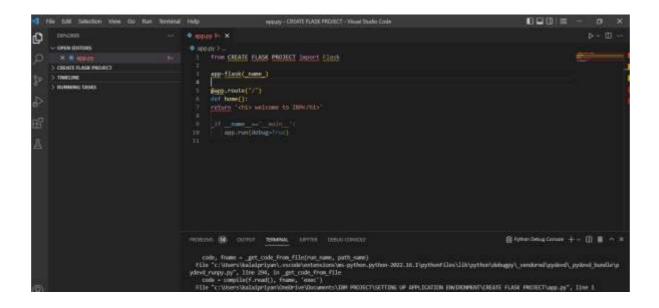
* Examples of containerization techniques

More gain in cost-effectiveness and business application agility

Lower technical complexity and initial investment



CREATE FLASK PROJECT



FLASK

```
Windows PowerShell
Copyright (C) Microsoft Corporation. All rights reserved.

Try the new cross-platform PowerShell https://aka.ms/pscore6

PS C:\Users\admin\Desktop\python> & \"C:\Program Files\Python2i@\python.exe\"\"C:\Users\admin\Desktop\python.python
-2022.16.1\python*lies\lib\python\debugpy\adapter/../.\debugpy\lamacher\"\50256\"\-\"\c:\Users\admin\Desktop\python\flask\app.

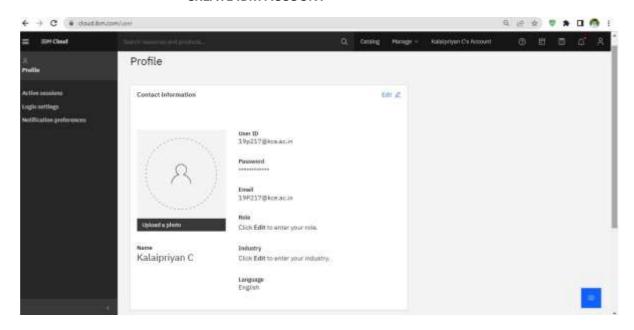
PV
* Serving Flask app 'app'
* Debug mode: on
* Running on http://127.0.0.3:5000

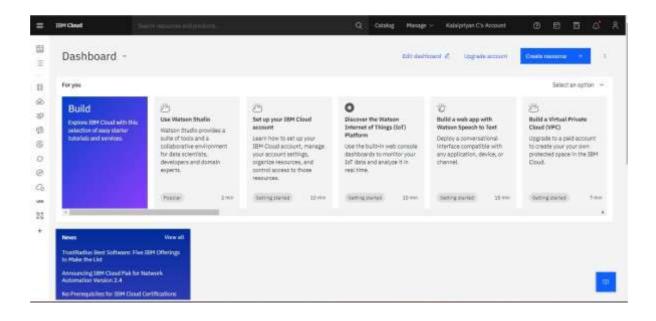
Press CTRL+C to quit
* Restarting with stat
* Debugger is active!
* Restarting with stat
* Debugger FIN: 882-217-924
127.0.0.1 - [27/Oct/2022 23:51:01] "GET / HTTP/1.1" 200 -
127.0.0.1 - [27/Oct/2022 23:51:31] "GET / HTTP/1.1" 200 -
127.0.0.1 - [27/Oct/2022 23:51:31] "GET / Favicon.ico HTTP/1.1" 404 -

* Restarting with stat
* Debugger is active!
* Debugger is active!
* Debugger is active!
* Debugger III: 882-217-924
127.0.0.1 - [27/Oct/2022 23:51:31] "GET / HTTP/1.1" 200 -
127.0.0.1 - [27/Oct/2022 23:51:31] "GET / HTTP/1.1" 200 -
127.0.0.1 - [27/Oct/2022 23:51:31] "GET / Favicon.ico HTTP/1.1" 404 -
```

Advantate Workson PosetPost
Michael Foundation
Michael Mich

CREATE IBM ACCOUNT



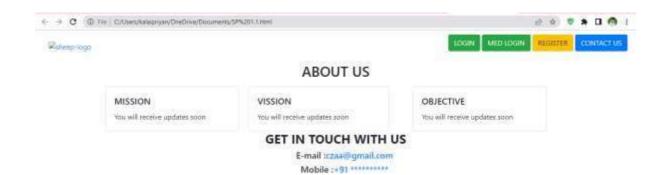


```
<!DOCTYPE html>
<html lang="en">
<head>
  <meta charset="UTF-8">
  <meta http-equiv="X-UA-Compatible" content="IE=edge">
  <meta name="viewport" content="width=device-width, initial-scale=1.0">
  <title>CZAA| HOME</title>
  <meta charset="UTF-8">
    <!-- favicon -->
    <!-- <li>k rel="shortcut icon" href="/assets/img/favicon.ico" type="image/x-icon"> -->
    <!-- <li>k rel="icon" href="/assets/img/favicon.ico" type="image/x-icon"> -->
    k rel="icon" type="image/png" sizes="16x16" href="/assets/img/favicon-32x32.png">
    <!-- bootstrap css cdn -->
    <link rel="stylesheet"</pre>
href="https://stackpath.bootstrapcdn.com/bootstrap/4.5.2/css/bootstrap.min.css"
integrity="sha384-JcKb8q3iqJ61gNV9KGb8thSsNjpSL0n8PARn9HuZOnIxN0hoP+VmmDGMN5t9UJ0Z"
crossorigin="anonymous">
    <link rel="stylesheet" href="https://cdnjs.cloudflare.com/ajax/libs/font-</pre>
awesome/4.7.0/css/font-awesome.css">
    <!-- css stylesheet -->
    <link rel="stylesheet" href="css/style.css">
    <!-- font styles cdn -->
    <link rel="preconnect" href="https://fonts.gstatic.com">
    k href="https://fonts.googleapis.com/css2?family=Alegreya&display=swap"
rel="stylesheet">
    <link href="https://fonts.googleapis.com/css2?family=Alegreya:wght@600&display=swap"</pre>
rel="stylesheet">
</head>
<body>
    <!-- bootstrap navbar -->
    <nav class="navbar sticky-top navbar-expand-lg navbar-dark">
      <div class="container-fluid">
```

```
<a class="main-logo-img mt-3" href="#"><img src="/static/img/smartinternz.png"
alt="sheep-logo" height="50px" width="180px">
        <!-- <a class="navbar-brand" href="index.html">JobPortal</a> -->
       </a>
       <div class="row donate-sponsor">
        <a type="button" class="btn btn-success mr-1" id="donate" href="login">LOGIN</a>
                               <a type="button" class="btn btn-success mr-1" id="donate"
href="login">MED LOGIN</a>
        <a type="button" class="btn btn-warning mr-1" id="sponsor" href="register">REGISTER</a>
        <a type="button" class="btn btn-primary mr-1" id="sponsor"
href="contact.html">CONTACT US</a>
       </div>
      </div>
     </nav>
     <!-- navbar ends -->
    <!-- what we focus on -->
    <section class="our-focus">
      <div class="container">
       <h2 class="text-center mt-3">ABOUT US</h2>
       <div class="row ml-3 mt-3">
        <div class="col-lg-3 mr-5" id="focus-first">
         <div class="card" style="width: 19rem;">
          <!-- <img src="assets/img/home kids.jpg" class="card-img-top" alt="..."> -->
          <div class="card-body">
           <h5 class="card-title">MISSION</h5>
            You will receive updates soon 
          </div>
         </div>
        </div>
        <div class="col-lg-3 mr-5" id="focus-second">
```

```
<div class="card" style="width: 20rem;">
      <!-- <img src="assets/img/friendship day.JPG" class="card-img-top" alt="..."> -->
      <div class="card-body">
       <h5 class="card-title">VISSION</h5>
       You will receive updates soon 
      </div>
     </div>
    </div>
    <div class="col-lg-3 ml-5" id="focus-third">
     <div class="card" style="width: 19rem;">
      <!-- <img src="assets/img/health camp.jpg" class="card-img-top" alt="..."> -->
      <div class="card-body">
       <h5 class="card-title">OBJECTIVE</h5>
        You will receive updates soon 
      </div>
     </div>
    </div>
   </div>
  </div>
 </section>
<footer>
  <center>
    <div class="col-xs-2 col-md-4">
     <h3> <b> GET IN TOUCH WITH US <b> </h3>
     <h5> E-mail :<a href="mailto:test@gmail.com">czaa@gmail.com</a></h5>
      <h5> Mobile :<a href="">+91 ********</a></h5>
     </div>
                  </center>
</footer> </body>
```

</html>



```
<!DOCTYPE html>
<html>
<head>
<meta name="viewport" content="width=device-width, initial-scale=1">
<link rel="stylesheet" href="https://cdnjs.cloudflare.com/ajax/libs/font-awesome/4.7.0/css/font-</pre>
awesome.min.css">
<style>
body {
 font-family: Arial, Helvetica, sans-serif;
}
* {
 box-sizing: border-box;
}
/* style the container */
.container {
 position: relative;
 border-radius: 5px;
 background-color: #f2f2f2;
 padding: 20px 0 30px 0;
}
/* style inputs and link buttons */
input,
.btn {
 width: 100%;
 padding: 12px;
 border: none;
 border-radius: 4px;
 margin: 5px 0;
```

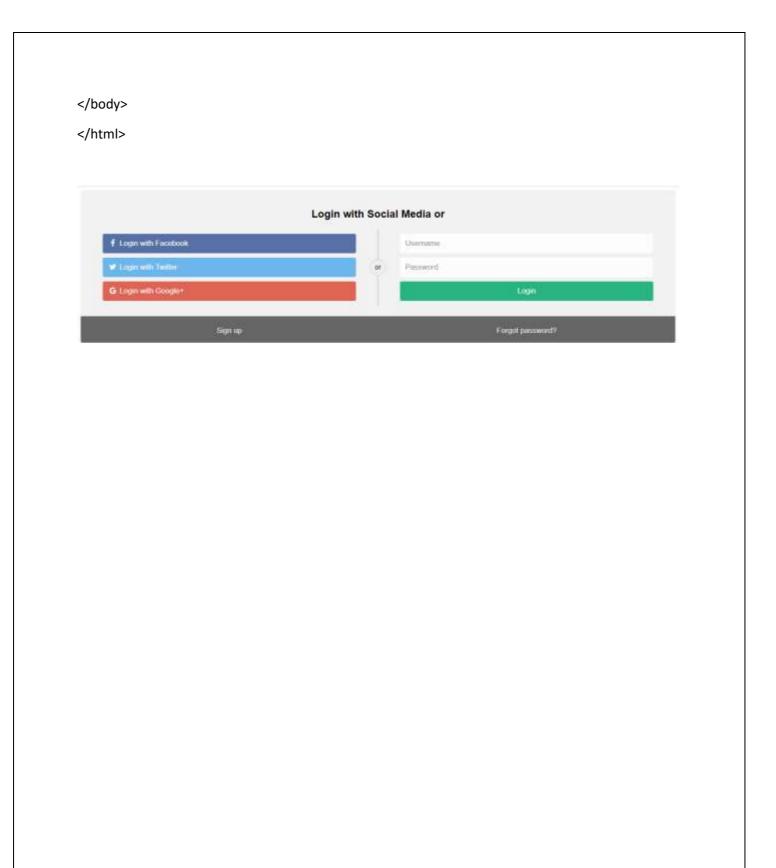
```
opacity: 0.85;
 display: inline-block;
 font-size: 17px;
 line-height: 20px;
 text-decoration: none; /* remove underline from anchors */
}
input:hover,
.btn:hover {
 opacity: 1;
}
/* add appropriate colors to fb, twitter and google buttons */
.fb {
 background-color: #3B5998;
 color: white;
}
. twitter \, \{ \,
 background-color: #55ACEE;
 color: white;
}
.google {
 background-color: #dd4b39;
 color: white;
}
/* style the submit button */
input[type=submit] {
background-color: #04AA6D;
```

```
color: white;
 cursor: pointer;
}
input[type=submit]:hover {
 background-color: #45a049;
}
/* Two-column layout */
.col {
 float: left;
 width: 50%;
 margin: auto;
 padding: 0 50px;
 margin-top: 6px;
}
/* Clear floats after the columns */
.row:after {
 content: "";
 display: table;
 clear: both;
}
/* vertical line */
.vl {
 position: absolute;
 left: 50%;
 transform: translate(-50%);
 border: 2px solid #ddd;
 height: 175px;
```

```
}
/* text inside the vertical line */
.vl-innertext {
 position: absolute;
 top: 50%;
 transform: translate(-50%, -50%);
 background-color: #f1f1f1;
 border: 1px solid #ccc;
 border-radius: 50%;
 padding: 8px 10px;
}
/* hide some text on medium and large screens */
.hide-md-lg {
 display: none;
}
/* bottom container */
.bottom-container {
 text-align: center;
 background-color: #666;
 border-radius: 0px 0px 4px 4px;
}
/* Responsive layout - when the screen is less than 650px wide, make the two columns stack on top
of each other instead of next to each other */
@media screen and (max-width: 650px) {
 .col {
  width: 100%;
  margin-top: 0;
```

```
}
 /* hide the vertical line */
 .vl {
  display: none;
 /* show the hidden text on small screens */
 .hide-md-lg {
  display: block;
  text-align: center;
}
}
</style>
</head>
<body>
<div class="container">
 <form action="/action_page.php">
  <div class="row">
   <h2 style="text-align:center">Login with Social Media or </h2>
   <div class="vl">
    <span class="vl-innertext">or</span>
   </div>
   <div class="col">
    <a href="#" class="fb btn">
     <i class="fa fa-facebook fa-fw"></i> Login with Facebook
    </a>
    <a href="#" class="twitter btn">
     <i class="fa fa-twitter fa-fw"></i> Login with Twitter
```

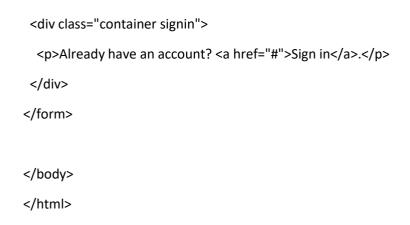
```
</a>
    <a href="#" class="google btn"><i class="fa fa-google fa-fw">
     </i> Login with Google+
    </a>
   </div>
   <div class="col">
    <div class="hide-md-lg">
     Or sign in manually:
    </div>
    <input type="text" name="username" placeholder="Username" required>
    <input type="password" name="password" placeholder="Password" required>
    <input type="submit" value="Login">
   </div>
  </div>
 </form>
</div>
<div class="bottom-container">
 <div class="row">
  <div class="col">
   <a href="#" style="color:white" class="btn">Sign up</a>
  </div>
  <div class="col">
   <a href="#" style="color:white" class="btn">Forgot password?</a>
  </div>
 </div>
</div>
```

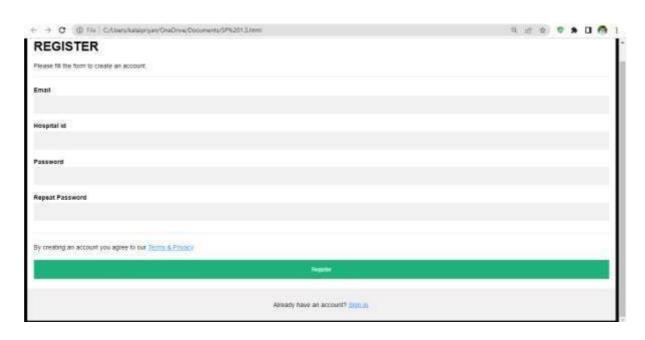


```
<!DOCTYPE html>
<html>
<head>
<meta name="viewport" content="width=device-width, initial-scale=1">
<style>
body {
 font-family: Arial, Helvetica, sans-serif;
 background-color: black;
}
* {
 box-sizing: border-box;
}
/* Add padding to containers */
. container \, \{ \,
 padding: 16px;
 background-color: white;
}
/* Full-width input fields */
input[type=text], input[type=password] {
width: 100%;
 padding: 15px;
 margin: 5px 0 22px 0;
 display: inline-block;
 border: none;
 background: #f1f1f1;
}
input[type=text]:focus, input[type=password]:focus {
```

```
background-color: #ddd;
 outline: none;
}
/* Overwrite default styles of hr */
hr {
 border: 1px solid #f1f1f1;
 margin-bottom: 25px;
}
/* Set a style for the submit button */
.registerbtn {
 background-color: #04AA6D;
 color: white;
 padding: 16px 20px;
 margin: 8px 0;
 border: none;
 cursor: pointer;
 width: 100%;
 opacity: 0.9;
}
. register btn: hover \, \{ \,
 opacity: 1;
}
/* Add a blue text color to links */
a {
 color: dodgerblue;
}
```

```
/* Set a grey background color and center the text of the "sign in" section */
.signin {
background-color: #f1f1f1;
text-align: center;
}
</style>
</head>
<body>
<form action="/action page.php">
 <div class="container">
  <h1>REGISTER</h1>
  Please fill the form to create an account.
  <hr>
  <label for="email"><b>Email</b></label>
  <input type="text" name="email" id="email" required>
       <label for="email"><b>Hospital id</b></label>
  <input type="text" name="hosid" id="hosid" required>
  <label for="psw"><b>Password</b></label>
  <input type="password" name="psw" id="psw" required>
  <label for="psw-repeat"><b>Repeat Password</b></label>
  <input type="password" name="psw-repeat" id="psw-repeat" required>
  <hr>
  By creating an account you agree to our <a href="#">Terms & Privacy</a>.
  <button type="submit" class="registerbtn">Register</button>
 </div>
```





DELETION AREAS <!DOCTYPE html> <html> <head> <meta charset="utf-8"> <meta name="viewport" content="width=device-width, initial-scale=1, shrink-to-fit=no"> <meta name="description" content="Start your development with a Dashboard for Bootstrap 4."> <meta name="author" content="Creative Tim"> <title>BESAFE | ZONEDELETION</title> <!-- Favicon --> <link rel="icon" href="static/img/brand/favicon.png" type="image/png"> <!-- Fonts --> <link rel="stylesheet"</pre> href="https://fonts.googleapis.com/css?family=Open+Sans:300,400,600,700"> <!-- Icons --> <link rel="stylesheet" href="static/vendor/nucleo/css/nucleo.css" type="text/css"> <link rel="stylesheet" href="static/vendor/@fortawesome/fontawesome-free/css/all.min.css"</pre> type="text/css"> <!-- Page plugins --> <!-- Argon CSS --> k rel="stylesheet" href="static/css/argon.css?v=1.2.0" type="text/css"> </head> <body> <!-- Sidenay -->

<nav class="sidenav navbar navbar-vertical fixed-left navbar-expand-xs navbar-light bg-white"</pre>

id="sidenav-main">

<!-- Brand -->

<div class="scrollbar-inner">

<div class="sidenav-header align-items-center">

```
<a class="navbar-brand" href="javascript:void(0)">
 <img src="static/images/Besafelogo.png" class="navbar-brand-img" alt="...">
</a>
</div>
<div class="navbar-inner">
<!-- Collapse -->
<div class="collapse navbar-collapse" id="sidenav-collapse-main">
 <!-- Nav items -->
  ul class="navbar-nav">
   class="nav-item">
    <a class="nav-link active" href="/admin">
     <i class="ni ni-tv-2 text-primary"></i>
     <span class="nav-link-text">Dashboard</span>
    </a>
   class="nav-item">
    <a class="nav-link" href="/countupdate">
     <i class="ni ni-pin-3 text-primary"></i>
     <span class="nav-link-text">COUNT UPDATE</span>
    </a>
   cli class="nav-item">
    <a class="nav-link" href="/zoneupdate">
     <i class="ni ni-bullet-list-67 text-default"></i>
     <span class="nav-link-text">ZONE UPDATE</span>
    </a>
   class="nav-item">
    <a class="nav-link" href="">
     <i class="ni ni-fat-remove text-default"></i>
     <span class="nav-link-text">ZONE DELETION</span>
```

```
</a>
      <!-- Divider -->
     <hr class="my-3">
     <!-- Navigation -->
     </div>
   </div>
  </div>
 </nav>
 <!-- Main content -->
 <div class="main-content" id="panel">
  <!-- Topnav -->
  <nav class="navbar navbar-top navbar-expand navbar-dark bg-primary border-bottom">
   <div class="container-fluid">
    <div class="collapse navbar-collapse" id="navbarSupportedContent">
     <!-- Search form -->
     <form class="navbar-search navbar-search-light form-inline mr-sm-3" id="navbar-search-
main">
      <div class="form-group mb-0">
       <div class="input-group input-group-alternative input-group-merge">
        <div class="input-group-prepend">
         <span class="input-group-text"><i class="fas fa-search"></i></span>
        </div>
        <input class="form-control" placeholder="Search" type="text">
       </div>
      </div>
      <button type="button" class="close" data-action="search-close" data-target="#navbar-
search-main" aria-label="Close">
       <span aria-hidden="true">x</span>
```

```
</button>
    </form>
    <!-- Navbar links -->
    cli class="nav-item d-xl-none">
      <!-- Sidenav toggler -->
      <div class="pr-3 sidenav-toggler sidenav-toggler-dark" data-action="sidenav-pin" data-
target="#sidenav-main">
       <div class="sidenav-toggler-inner">
        <i class="sidenav-toggler-line"></i>
        <i class="sidenav-toggler-line"></i>
        <i class="sidenav-toggler-line"></i>
       </div>
      </div>
     class="nav-item d-sm-none">
      <a class="nav-link" href="#" data-action="search-show" data-target="#navbar-search-main">
       <i class="ni ni-zoom-split-in"></i>
      </a>
     <a class="nav-link pr-0" href="#" role="button" data-toggle="dropdown" aria-
haspopup="true" aria-expanded="false">
       <div class="media align-items-center">
        <span class="avatar avatar-sm rounded-circle">
         <img alt="Image placeholder" src="static/images/icon.jpg">
        </span>
        <div class="media-body ml-2 d-none d-lg-block">
```

```
<span class="mb-0 text-sm font-weight-bold">{{user}}</span>
       </div>
      </div>
     </a>
     <div class="dropdown-menu dropdown-menu-right">
      <div class="dropdown-header noti-title">
       <h6 class="text-overflow m-0">Welcome!</h6>
      </div>
      <a href="/logout" class="dropdown-item">
       <i class="ni ni-single-02"></i>
       <span>My profile</span>
      </a>
      <a href="#!" class="dropdown-item">
       <i class="ni ni-settings-gear-65"></i>
       <span>Settings</span>
      </a>
      <div class="dropdown-divider"></div>
      <a href="/logout" class="dropdown-item">
       <i class="ni ni-user-run"></i>
       <span>Logout</span>
      </a>
     </div>
    </div>
 </div>
</nav>
<!-- Header -->
<!-- Header -->
<div class="header bg-primary pb-6">
 <div class="container-fluid">
```

```
<div class="row align-items-center py-4">
     <div class="col-lg-6 col-7">
      <h6 class="h2 text-white d-inline-block mb-0">Default</h6>
      <nav aria-label="breadcrumb" class="d-none d-md-inline-block ml-md-4">
       class="breadcrumb-item"><a href="#"><i class="fas fa-home"></i></a>
        <a href="#">Dashboards</a>
        Default
       </nav>
     </div>
     <div class="col-lg-6 col-5 text-right">
      <a href="#" class="btn btn-sm btn-neutral">Refresh</a>
     </div>
    </div>
    <!-- Card stats -->
    <div class="login text-center mt-5">
   <h1 style="color:white;"> ZONE DELETION </h1>
   <form action="/zonedeletion" method="post">
   <div class="msg">{{ msg }}</div>
     <br><input type="text" style="text-transform:uppercase" name="state" placeholder="STATE"</pre>
id="state" required><br>
                    <br><input type="text" style="text-transform:uppercase" name="district"</pre>
placeholder="DISTRICT" id="district" required><br>
                    <br><input type="text" style="text-transform:uppercase" name="area"</pre>
placeholder="CITY" id="city" required><br>
   <button type="submit" id="button" class="btn btn-dark"> DELETE </button>
   </form>
```

<div class="header-body">

```
</div>
   <!-- Footer -->
   <footer class="footer pt-0">
    <div class="row align-items-center justify-content-lg-between">
     <div class="col-lg-6">
      <div class="copyright text-center text-lg-left text-muted">
       © 2021 <a href="https://www.instagram.com/asuvath.in/" class="font-weight-bold ml-
1" target="_blank">@asuvath.in</a>
      </div>
     </div>
     <div class="col-lg-6">
      cli class="nav-item">
        <a href="/" class="nav-link" target="_blank">About Us.</a>
       </div>
    </div>
   </footer>
  </div>
 </div>
<!-- Argon Scripts -->
<!-- Core -->
 <script src="static/vendor/jquery/dist/jquery.min.js"></script>
 <script src="static/vendor/bootstrap/dist/js/bootstrap.bundle.min.js"></script>
 <script src="static/vendor/js-cookie/js.cookie.js"></script>
 <script src="static/vendor/jquery.scrollbar/jquery.scrollbar.min.js"></script>
 <script src="static/vendor/jquery-scroll-lock/dist/jquery-scrollLock.min.js"></script>
 <!-- Optional JS -->
 <script src="static/vendor/chart.js/dist/Chart.min.js"></script>
```

<	script src="static/vendor/chart.js/dist/Chart.extension.js">
	! Argon JS>
	script src="static/js/argon.js?v=1.2.0">
	div>
</th <th>div></th>	div>
</th <th>body></th>	body>
</td <td>html></td>	html>

```
LOGIN
<!DOCTYPE html>
<html>
<head>
 <meta charset="utf-8">
<meta name="viewport" content="width=device-width, initial-scale=1, shrink-to-fit=no">
 <meta name="description" content="Start your development with a Dashboard for Bootstrap 4.">
 <meta name="author" content="Creative Tim">
 <title>BESAFE | Dashboard</title>
 <!-- Favicon -->
 <link rel="icon" href="static/img/brand/favicon.png" type="image/png">
 <!-- Fonts -->
<link rel="stylesheet"</pre>
href="https://fonts.googleapis.com/css?family=Open+Sans:300,400,600,700">
<!-- Icons -->
<link rel="stylesheet" href="static/vendor/nucleo/css/nucleo.css" type="text/css">
 k rel="stylesheet" href="static/vendor/@fortawesome/fontawesome-free/css/all.min.css"
type="text/css">
<!-- Page plugins -->
<!-- Argon CSS -->
k rel="stylesheet" href="static/css/argon.css?v=1.2.0" type="text/css">
</head>
<body>
<!-- Sidenay -->
<nav class="sidenav navbar navbar-vertical fixed-left navbar-expand-xs navbar-light bg-white"</pre>
id="sidenav-main">
  <div class="scrollbar-inner">
   <!-- Brand -->
   <div class="sidenav-header align-items-center">
```

```
<a class="navbar-brand" href="javascript:void(0)">
 <img src="static/images/Besafelogo.png" class="navbar-brand-img" alt="...">
</a>
</div>
<div class="navbar-inner">
<!-- Collapse -->
<div class="collapse navbar-collapse" id="sidenav-collapse-main">
 <!-- Nav items -->
  ul class="navbar-nav">
   class="nav-item">
    <a class="nav-link active" href="examples/dashboard.html">
     <i class="ni ni-tv-2 text-primary"></i>
     <span class="nav-link-text">Dashboard</span>
    </a>
   class="nav-item">
    <a class="nav-link" href="/verify">
     <i class="ni ni-square-pin text-primary"></i>
     <span class="nav-link-text">Verify your location</span>
    </a>
   cli class="nav-item">
    <a class="nav-link" href="/visitedzones">
     <i class="ni ni-bullet-list-67 text-default"></i>
     <span class="nav-link-text">Visited zones</span>
    </a>
   <!-- Divider -->
  <hr class="my-3">
  <!-- Navigation -->
```

```
</div>
   </div>
 </div>
 </nav>
 <!-- Main content -->
 <div class="main-content" id="panel">
 <!-- Topnav -->
 <nav class="navbar navbar-top navbar-expand navbar-dark bg-primary border-bottom">
   <div class="container-fluid">
    <div class="collapse navbar-collapse" id="navbarSupportedContent">
     <!-- Search form -->
     <form class="navbar-search navbar-search-light form-inline mr-sm-3" id="navbar-search-
main">
      <div class="form-group mb-0">
       <div class="input-group input-group-alternative input-group-merge">
        <div class="input-group-prepend">
         <span class="input-group-text"><i class="fas fa-search"></i></span>
        </div>
        <input class="form-control" placeholder="Search" type="text">
       </div>
      </div>
      <button type="button" class="close" data-action="search-close" data-target="#navbar-
search-main" aria-label="Close">
       <span aria-hidden="true">x</span>
      </button>
     </form>
     <!-- Navbar links -->
     cli class="nav-item d-xl-none">
       <!-- Sidenav toggler -->
```

```
<div class="pr-3 sidenav-toggler sidenav-toggler-dark" data-action="sidenav-pin" data-
target="#sidenav-main">
       <div class="sidenav-toggler-inner">
        <i class="sidenav-toggler-line"></i>
        <i class="sidenav-toggler-line"></i>
        <i class="sidenav-toggler-line"></i>
       </div>
      </div>
     class="nav-item d-sm-none">
      <a class="nav-link" href="#" data-action="search-show" data-target="#navbar-search-main">
       <i class="ni ni-zoom-split-in"></i>
      </a>
     <a class="nav-link pr-0" href="#" role="button" data-toggle="dropdown" aria-
haspopup="true" aria-expanded="false">
       <div class="media align-items-center">
        <span class="avatar avatar-sm rounded-circle">
         <img alt="Image placeholder" src="static/images/icon.jpg">
        </span>
        <div class="media-body ml-2 d-none d-lg-block">
         <span class="mb-0 text-sm font-weight-bold">{{user}}</span>
        </div>
       </div>
      </a>
      <div class="dropdown-menu dropdown-menu-right">
       <div class="dropdown-header noti-title">
```

```
<h6 class="text-overflow m-0">Welcome!</h6>
      </div>
      <a href="#!" class="dropdown-item">
       <i class="ni ni-single-02"></i>
       <span>My profile</span>
      </a>
      <a href="#!" class="dropdown-item">
       <i class="ni ni-settings-gear-65"></i>
       <span>Settings</span>
      </a>
      <div class="dropdown-divider"></div>
      <a href="/logout" class="dropdown-item">
       <i class="ni ni-user-run"></i>
       <span>Logout</span>
      </a>
     </div>
    </div>
 </div>
</nav>
<!-- Header -->
<!-- Header -->
<div class="header bg-primary pb-6">
 <div class="container-fluid">
  <div class="header-body">
   <div class="row align-items-center py-4">
    <div class="col-lg-6 col-7">
     <h6 class="h2 text-white d-inline-block mb-0">Default</h6>
     <nav aria-label="breadcrumb" class="d-none d-md-inline-block ml-md-4">

    class="breadcrumb breadcrumb-links breadcrumb-dark">
```

```
class="breadcrumb-item"><a href="#"><i class="fas fa-home"></i></a>
   class="breadcrumb-item"><a href="#">Dashboards</a>
   Default
  </nav>
</div>
<div class="col-lg-6 col-5 text-right">
 <a href="/dashboard" class="btn btn-sm btn-neutral">Refresh</a>
</div>
</div>
<!-- Card stats -->
<div class="row">
<div class="col-xl-3 col-md-6">
 <div class="card card-stats">
  <!-- Card body -->
  <div class="card-body">
   <div class="row">
    <div class="col">
     <h5 class="card-title text-uppercase text-muted mb-0">Active cases</h5>
     <span class="h2 font-weight-bold mb-0">{{activecases}}</span>
    </div>
    <div class="col-auto">
     <div class="icon icon-shape bg-gradient-red text-white rounded-circle shadow">
      <i class="ni ni-active-40"></i>
     </div>
    </div>
   </div>
   <span class="text-nowrap">Total cases across our nation </span>
   </div>
```

```
</div>
</div>
<div class="col-xl-3 col-md-6">
 <div class="card card-stats">
  <!-- Card body -->
  <div class="card-body">
   <div class="row">
    <div class="col">
     <h5 class="card-title text-uppercase text-muted mb-0">New Cases</h5>
     <span class="h2 font-weight-bold mb-0">{{newcases}}</span>
    </div>
    <div class="col-auto">
     <div class="icon icon-shape bg-gradient-orange text-white rounded-circle shadow">
      <i class="ni ni-chart-pie-35"></i>
     </div>
    </div>
   </div>
   <span class="text-success mr-2"><i class="fa fa-arrow-up"></i> </span>
    <span class="text-nowrap">Since 24 hrs</span>
   </div>
 </div>
</div>
<div class="col-xl-3 col-md-6">
 <div class="card card-stats">
  <!-- Card body -->
  <div class="card-body">
   <div class="row">
    <div class="col">
     <h5 class="card-title text-uppercase text-muted mb-0">Deaths</h5>
```

```
<span class="h2 font-weight-bold mb-0">{{deaths}}</span>
   </div>
    <div class="col-auto">
     <div class="icon icon-shape bg-gradient-green text-white rounded-circle shadow">
      <i class="ni ni-money-coins"></i>
     </div>
   </div>
   </div>
   <span class="text-nowrap">Since 24 hrs </span>
   </div>
 </div>
</div>
<div class="col-xl-3 col-md-6">
 <div class="card card-stats">
 <!-- Card body -->
 <div class="card-body">
   <div class="row">
   <div class="col">
     <h5 class="card-title text-uppercase text-muted mb-0">Recovered </h5>
     <span class="h2 font-weight-bold mb-0">{{recovered}}</span>
   </div>
   <div class="col-auto">
     <div class="icon icon-shape bg-gradient-info text-white rounded-circle shadow">
      <i class="ni ni-chart-bar-32"></i>
     </div>
   </div>
   </div>
   <span class="text-success mr-2"><i class="fa fa-arrow-up"></i> </span>
```

```
<span class="text-nowrap">Total recovered cases</span>
        </div>
      </div>
     </div>
    </div>
   </div>
  </div>
 </div>
 <!-- Page content -->
     <div class="card-body">
      <!-- Chart -->
      <div class="chart">
       <!-- Chart wrapper -->
      <!-- Projects table -->
  <!-- Footer -->
  <footer class="footer pt-0">
   <div class="row align-items-center justify-content-lg-between">
    <div class="col-lg-6">
     <div class="copyright text-center text-lg-left text-muted">
      © 2021 <a href="https://www.instagram.com/asuvath.in/" class="font-weight-bold ml-
1" target="_blank">@asuvath.in</a>
     </div>
    </div>
    <div class="col-lg-6">
     class="nav-item">
```

```
<a href="/" class="nav-link" target="_blank">About Us</a>
       </div>
    </div>
   </footer>
  </div>
 </div>
 <!-- Argon Scripts -->
 <!-- Core -->
 <script src="static/vendor/jquery/dist/jquery.min.js"></script>
 <script src="static/vendor/bootstrap/dist/js/bootstrap.bundle.min.js"></script>
 <script src="static/vendor/js-cookie/js.cookie.js"></script>
 <script src="static/vendor/jquery.scrollbar/jquery.scrollbar.min.js"></script>
 <script src="static/vendor/jquery-scroll-lock/dist/jquery-scrollLock.min.js"></script>
 <!-- Optional JS -->
 <script src="static/vendor/chart.js/dist/Chart.min.js"></script>
 <script src="static/vendor/chart.js/dist/Chart.extension.js"></script>
 <!-- Argon JS -->
 <script src="static/js/argon.js?v=1.2.0"></script>
</div>
</body>
</html>
```

```
UPDATE AREAS
<!DOCTYPE html>
<html>
<head>
 <meta charset="utf-8">
<meta name="viewport" content="width=device-width, initial-scale=1, shrink-to-fit=no">
 <meta name="description" content="Start your development with a Dashboard for Bootstrap 4.">
 <meta name="author" content="Creative Tim">
 <title>BESAFE | ZONEUPDATE</title>
 <!-- Favicon -->
 <link rel="icon" href="static/img/brand/favicon.png" type="image/png">
 <!-- Fonts -->
<link rel="stylesheet"</pre>
href="https://fonts.googleapis.com/css?family=Open+Sans:300,400,600,700">
<!-- Icons -->
<link rel="stylesheet" href="static/vendor/nucleo/css/nucleo.css" type="text/css">
 <link rel="stylesheet" href="static/vendor/@fortawesome/fontawesome-free/css/all.min.css"</pre>
type="text/css">
<!-- Page plugins -->
<!-- Argon CSS -->
k rel="stylesheet" href="static/css/argon.css?v=1.2.0" type="text/css">
</head>
<body>
<!-- Sidenay -->
<nav class="sidenav navbar navbar-vertical fixed-left navbar-expand-xs navbar-light bg-white"</pre>
id="sidenav-main">
  <div class="scrollbar-inner">
   <!-- Brand -->
```

<div class="sidenav-header align-items-center">

```
<a class="navbar-brand" href="javascript:void(0)">
 <img src="static/images/Besafelogo.png" class="navbar-brand-img" alt="...">
</a>
</div>
<div class="navbar-inner">
<!-- Collapse -->
<div class="collapse navbar-collapse" id="sidenav-collapse-main">
 <!-- Nav items -->
  ul class="navbar-nav">
   class="nav-item">
    <a class="nav-link active" href="/admin">
     <i class="ni ni-tv-2 text-primary"></i>
     <span class="nav-link-text">Dashboard</span>
    </a>
   class="nav-item">
    <a class="nav-link" href="/countupdate">
     <i class="ni ni-pin-3 text-primary"></i>
     <span class="nav-link-text">COUNT UPDATE</span>
    </a>
   class="nav-item">
    <a class="nav-link" href="">
     <i class="ni ni-bullet-list-67 text-default"></i>
     <span class="nav-link-text">ZONE UPDATE</span>
    </a>
   class="nav-item">
    <a class="nav-link" href="/zonedeletion">
     <i class="ni ni-fat-remove text-default"></i>
     <span class="nav-link-text">ZONE DELETION</span>
```

```
</a>
      <!-- Divider -->
     <hr class="my-3">
     <!-- Navigation -->
     </div>
   </div>
  </div>
 </nav>
 <!-- Main content -->
 <div class="main-content" id="panel">
  <!-- Topnav -->
  <nav class="navbar navbar-top navbar-expand navbar-dark bg-primary border-bottom">
   <div class="container-fluid">
    <div class="collapse navbar-collapse" id="navbarSupportedContent">
     <!-- Search form -->
     <form class="navbar-search navbar-search-light form-inline mr-sm-3" id="navbar-search-
main">
      <div class="form-group mb-0">
       <div class="input-group input-group-alternative input-group-merge">
        <div class="input-group-prepend">
         <span class="input-group-text"><i class="fas fa-search"></i></span>
        </div>
        <input class="form-control" placeholder="Search" type="text">
       </div>
      </div>
      <button type="button" class="close" data-action="search-close" data-target="#navbar-
search-main" aria-label="Close">
       <span aria-hidden="true">x</span>
```

```
</button>
    </form>
    <!-- Navbar links -->
    cli class="nav-item d-xl-none">
      <!-- Sidenav toggler -->
      <div class="pr-3 sidenav-toggler sidenav-toggler-dark" data-action="sidenav-pin" data-
target="#sidenav-main">
       <div class="sidenav-toggler-inner">
        <i class="sidenav-toggler-line"></i>
        <i class="sidenav-toggler-line"></i>
        <i class="sidenav-toggler-line"></i>
       </div>
      </div>
     class="nav-item d-sm-none">
      <a class="nav-link" href="#" data-action="search-show" data-target="#navbar-search-main">
       <i class="ni ni-zoom-split-in"></i>
      </a>
     <a class="nav-link pr-0" href="#" role="button" data-toggle="dropdown" aria-
haspopup="true" aria-expanded="false">
       <div class="media align-items-center">
        <span class="avatar avatar-sm rounded-circle">
         <img alt="Image placeholder" src="static/images/icon.jpg">
        </span>
        <div class="media-body ml-2 d-none d-lg-block">
```

```
<span class="mb-0 text-sm font-weight-bold">{{user}}</span>
       </div>
      </div>
     </a>
     <div class="dropdown-menu dropdown-menu-right">
      <div class="dropdown-header noti-title">
       <h6 class="text-overflow m-0">Welcome!</h6>
      </div>
      <a href="#!" class="dropdown-item">
       <i class="ni ni-single-02"></i>
       <span>My profile</span>
      </a>
      <a href="#!" class="dropdown-item">
       <i class="ni ni-settings-gear-65"></i>
       <span>Settings</span>
      </a>
      <div class="dropdown-divider"></div>
      <a href="/logout" class="dropdown-item">
       <i class="ni ni-user-run"></i>
       <span>Logout</span>
      </a>
     </div>
    </div>
 </div>
</nav>
<!-- Header -->
<!-- Header -->
<div class="header bg-primary pb-6">
 <div class="container-fluid">
```

```
<div class="row align-items-center py-4">
     <div class="col-lg-6 col-7">
      <h6 class="h2 text-white d-inline-block mb-0">Default</h6>
      <nav aria-label="breadcrumb" class="d-none d-md-inline-block ml-md-4">
       class="breadcrumb-item"><a href="#"><i class="fas fa-home"></i></a>
        <a href="#">Dashboards</a>
        Default
       </nav>
     </div>
     <div class="col-lg-6 col-5 text-right">
      <a href="#" class="btn btn-sm btn-neutral">Refresh</a>
     </div>
    </div>
    <!-- Card stats -->
    <div class="login text-center mt-5">
   <h1 style="color:white;"> ZONE UPDATE </h1>
   <form action="/zoneupdate" method="post">
   <div class="msg">{{ msg }}</div>
     <br><input type="text" style="text-transform:uppercase" name="state" placeholder="STATE"</pre>
id="state" required><br>
                    <br><input type="text" style="text-transform:uppercase" name="district"</pre>
placeholder="DISTRICT" id="district" required><br>
                    <br><input type="text" style="text-transform:uppercase" name="area"</pre>
placeholder="CITY" id="city" required><br>
   <button type="submit" id="button" class="btn btn-dark"> ADD </button>
   </form>
```

<div class="header-body">

```
</div>
   <!-- Footer -->
   <footer class="footer pt-0">
    <div class="row align-items-center justify-content-lg-between">
     <div class="col-lg-6">
      <div class="copyright text-center text-lg-left text-muted">
       © 2021 <a href="https://www.instagram.com/asuvath.in/" class="font-weight-bold ml-
1" target="_blank">@asuvath.in</a>
      </div>
     </div>
     <div class="col-lg-6">
      cli class="nav-item">
        <a href="/" class="nav-link" target="_blank">About Us.</a>
       </div>
    </div>
   </footer>
  </div>
 </div>
<!-- Argon Scripts -->
<!-- Core -->
 <script src="static/vendor/jquery/dist/jquery.min.js"></script>
 <script src="static/vendor/bootstrap/dist/js/bootstrap.bundle.min.js"></script>
 <script src="static/vendor/js-cookie/js.cookie.js"></script>
 <script src="static/vendor/jquery.scrollbar/jquery.scrollbar.min.js"></script>
 <script src="static/vendor/jquery-scroll-lock/dist/jquery-scrollLock.min.js"></script>
 <!-- Optional JS -->
 <script src="static/vendor/chart.js/dist/Chart.min.js"></script>
```

<	<pre><script src="static/vendor/chart.js/dist/Chart.extension.js"></script></pre>
	Argon JS
	<pre>cscript src="static/js/argon.js?v=1.2.0"></pre>
	/div>
</th <th>'div></th>	'div>
</td <td>/body></td>	/body>
</td <td>/html></td>	/html>

```
VISITED AREAS
<!DOCTYPE html>
<html>
<head>
 <meta charset="utf-8">
<meta name="viewport" content="width=device-width, initial-scale=1, shrink-to-fit=no">
 <meta name="description" content="Start your development with a Dashboard for Bootstrap 4.">
 <meta name="author" content="Creative Tim">
 <title>BESAFE | VISITEDZONES</title>
 <!-- Favicon -->
 <link rel="icon" href="static/img/brand/favicon.png" type="image/png">
 <!-- Fonts -->
<link rel="stylesheet"</pre>
href="https://fonts.googleapis.com/css?family=Open+Sans:300,400,600,700">
<!-- Icons -->
<link rel="stylesheet" href="static/vendor/nucleo/css/nucleo.css" type="text/css">
 k rel="stylesheet" href="static/vendor/@fortawesome/fontawesome-free/css/all.min.css"
type="text/css">
<!-- Page plugins -->
<!-- Argon CSS -->
k rel="stylesheet" href="static/css/argon.css?v=1.2.0" type="text/css">
</head>
<body>
<!-- Sidenay -->
<nav class="sidenav navbar navbar-vertical fixed-left navbar-expand-xs navbar-light bg-white"</pre>
id="sidenav-main">
  <div class="scrollbar-inner">
   <!-- Brand -->
```

<div class="sidenav-header align-items-center">

```
<a class="navbar-brand" href="javascript:void(0)">
 <img src="static/images/Besafelogo.png" class="navbar-brand-img" alt="...">
</a>
</div>
<div class="navbar-inner">
<!-- Collapse -->
<div class="collapse navbar-collapse" id="sidenav-collapse-main">
 <!-- Nav items -->
  ul class="navbar-nav">
   class="nav-item">
    <a class="nav-link active" href="/dashboard">
     <i class="ni ni-tv-2 text-primary"></i>
     <span class="nav-link-text">Dashboard</span>
    </a>
   class="nav-item">
    <a class="nav-link" href="/verify">
     <i class="ni ni-pin-3 text-primary"></i>
     <span class="nav-link-text">Verify your location</span>
    </a>
   class="nav-item">
    <a class="nav-link" href="">
     <i class="ni ni-bullet-list-67 text-default"></i>
     <span class="nav-link-text">Visited zones</span>
    </a>
   <!-- Divider -->
  <hr class="my-3">
  <!-- Navigation -->
```

```
</div>
   </div>
 </div>
 </nav>
 <!-- Main content -->
 <div class="main-content" id="panel">
 <!-- Topnav -->
 <nav class="navbar navbar-top navbar-expand navbar-dark bg-primary border-bottom">
   <div class="container-fluid">
    <div class="collapse navbar-collapse" id="navbarSupportedContent">
     <!-- Search form -->
     <form class="navbar-search navbar-search-light form-inline mr-sm-3" id="navbar-search-
main">
      <div class="form-group mb-0">
       <div class="input-group input-group-alternative input-group-merge">
        <div class="input-group-prepend">
         <span class="input-group-text"><i class="fas fa-search"></i></span>
        </div>
        <input class="form-control" placeholder="Search" type="text">
       </div>
      </div>
      <button type="button" class="close" data-action="search-close" data-target="#navbar-
search-main" aria-label="Close">
       <span aria-hidden="true">x</span>
      </button>
     </form>
     <!-- Navbar links -->
     cli class="nav-item d-xl-none">
       <!-- Sidenav toggler -->
```

```
<div class="pr-3 sidenav-toggler sidenav-toggler-dark" data-action="sidenav-pin" data-
target="#sidenav-main">
       <div class="sidenav-toggler-inner">
        <i class="sidenav-toggler-line"></i>
        <i class="sidenav-toggler-line"></i>
        <i class="sidenav-toggler-line"></i>
       </div>
      </div>
     class="nav-item d-sm-none">
      <a class="nav-link" href="#" data-action="search-show" data-target="#navbar-search-main">
       <i class="ni ni-zoom-split-in"></i>
      </a>
     <a class="nav-link pr-0" href="#" role="button" data-toggle="dropdown" aria-
haspopup="true" aria-expanded="false">
       <div class="media align-items-center">
        <span class="avatar avatar-sm rounded-circle">
         <img alt="Image placeholder" src="static/images/icon.jpg">
        </span>
        <div class="media-body ml-2 d-none d-lg-block">
         <span class="mb-0 text-sm font-weight-bold">{{user}}</span>
        </div>
       </div>
      </a>
      <div class="dropdown-menu dropdown-menu-right">
       <div class="dropdown-header noti-title">
```

```
<h6 class="text-overflow m-0">Welcome!</h6>
      </div>
      <a href="#!" class="dropdown-item">
       <i class="ni ni-single-02"></i>
       <span>My profile</span>
      </a>
      <a href="#!" class="dropdown-item">
       <i class="ni ni-settings-gear-65"></i>
       <span>Settings</span>
      </a>
      <div class="dropdown-divider"></div>
      <a href="/logout" class="dropdown-item">
       <i class="ni ni-user-run"></i>
       <span>Logout</span>
      </a>
     </div>
    </div>
 </div>
</nav>
<!-- Header -->
<!-- Header -->
<div class="header bg-primary pb-6">
 <div class="container-fluid">
  <div class="header-body">
   <div class="row align-items-center py-4">
    <div class="col-lg-6 col-7">
     <h6 class="h2 text-white d-inline-block mb-0">Default</h6>
     <nav aria-label="breadcrumb" class="d-none d-md-inline-block ml-md-4">

    class="breadcrumb breadcrumb-links breadcrumb-dark">
```

```
class="breadcrumb-item"><a href="#"><i class="fas fa-home"></i></a>
        class="breadcrumb-item"><a href="#">Dashboards</a>
        Default
       </nav>
     </div>
    </div>
    <!-- Card stats -->
    <div class="login text-center mt-5">
   <h1 style="color:white;"> VISITED ZONES </h1>
   <div class="msg" style="color:white;">{{ msg }}</div>
     <div class="visitedzones" style="color:yellow;">{{ visitedzones }}</div>
 </div>
  <!-- Footer -->
  <footer class="footer pt-0">
   <div class="row align-items-center justify-content-lg-between">
    <div class="col-lg-6">
     <div class="copyright text-center text-lg-left text-muted">
      © 2021 <a href="https://www.instagram.com/asuvath.in/" class="font-weight-bold ml-
1" target="_blank">@asuvath.in</a>
     </div>
    </div>
    <div class="col-lg-6">
     class="nav-item">
       <a href="/" class="nav-link" target="_blank">About Us.</a>
```

```
</div>
    </div>
   </footer>
  </div>
 </div>
 <!-- Argon Scripts -->
 <!-- Core -->
 <script src="static/vendor/jquery/dist/jquery.min.js"></script>
 <script src="static/vendor/bootstrap/dist/js/bootstrap.bundle.min.js"></script>
 <script src="static/vendor/js-cookie/js.cookie.js"></script>
 <script src="static/vendor/jquery.scrollbar/jquery.scrollbar.min.js"></script>
 <script src="static/vendor/jquery-scroll-lock/dist/jquery-scrollLock.min.js"></script>
 <!-- Optional JS -->
 <script src="static/vendor/chart.js/dist/Chart.min.js"></script>
 <script src="static/vendor/chart.js/dist/Chart.extension.js"></script>
 <!-- Argon JS -->
 <script src="static/js/argon.js?v=1.2.0"></script>
</div>
</div>
</body>
</html>
```

GITHUB LINK: https://github.com/IBM-EPBL/IBM-Project-14663-1659588358