BENNETT UNIVERSITY

DESIGN THINKING & INNOVATION PROJECT

M-GAP

MAINTAIN GAP

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INTRODUCTION

2020 has been a testing year for all of us. It has changed our lives drastically. We have build a web application that is directly focused on providing a solution that enables us to continue operations safely in public premises.

M-gap is a complex ecosystem that carries out facial recognition and face mask detection to ensure you're safe to enter!This system can be connected across multiple stores and showrooms in order to make your journey hassle free.

By developing an economical and automatic system that is capable to measure body temperature of a person and face-mask detection combined with Facial Recognition, a company will be efficient in carrying out an additional screening before the employee with initial/potential symptoms could enter the location.

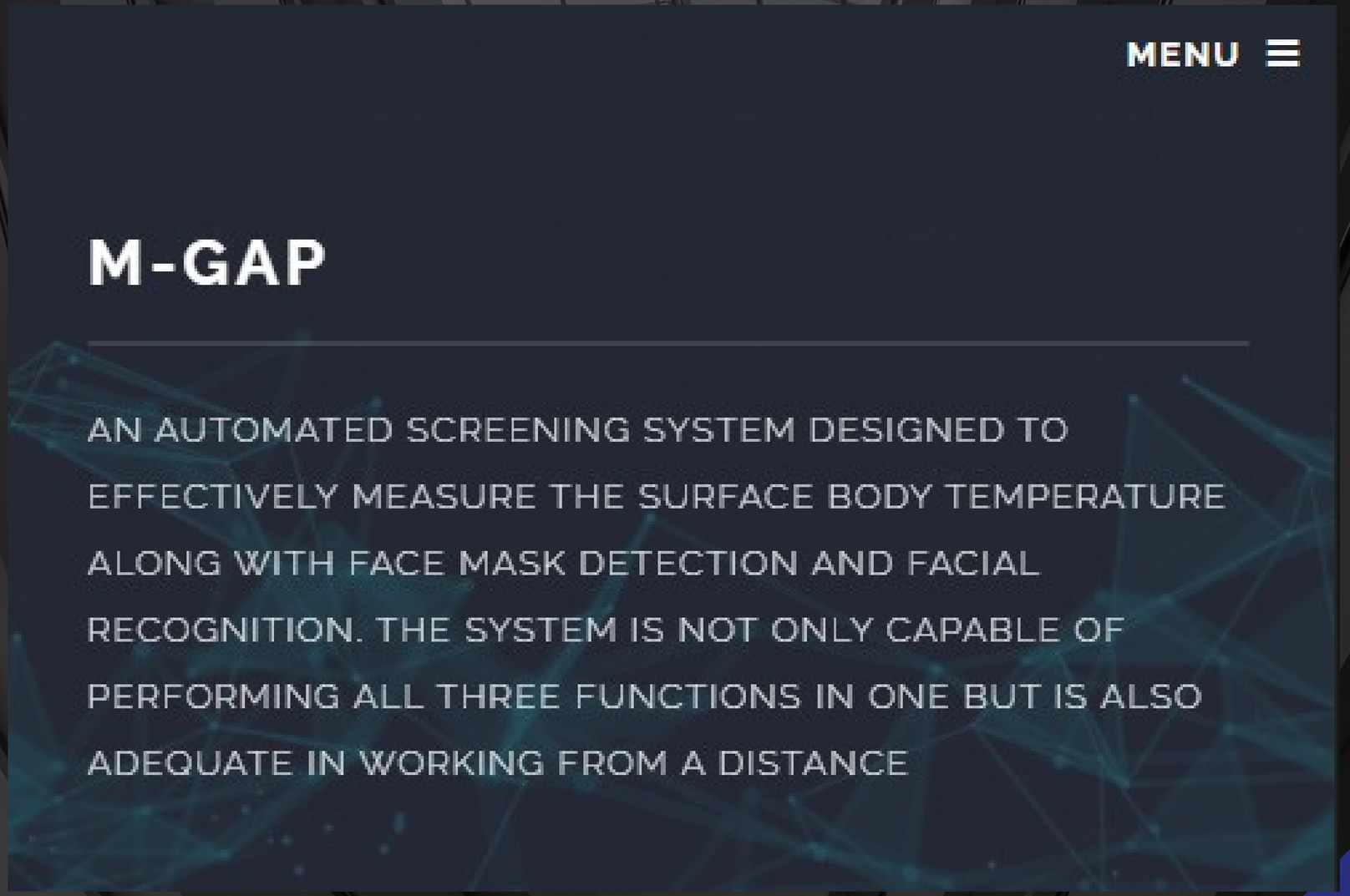
M-GAP (MAINTAIN GAP)

PROBLEM STATEMENT

Going outside your home now means securing your mask, frequently reminding yourself of the term “social distancing” and getting your temperature checked when you enter any public premise. For creating a safe environment we need to keep a check on initial symptoms of COVID such as body temperature. Temperature detection and wearing of face-mask has currently become very crucial in our lives. This would be unsafe in the current circumstances.

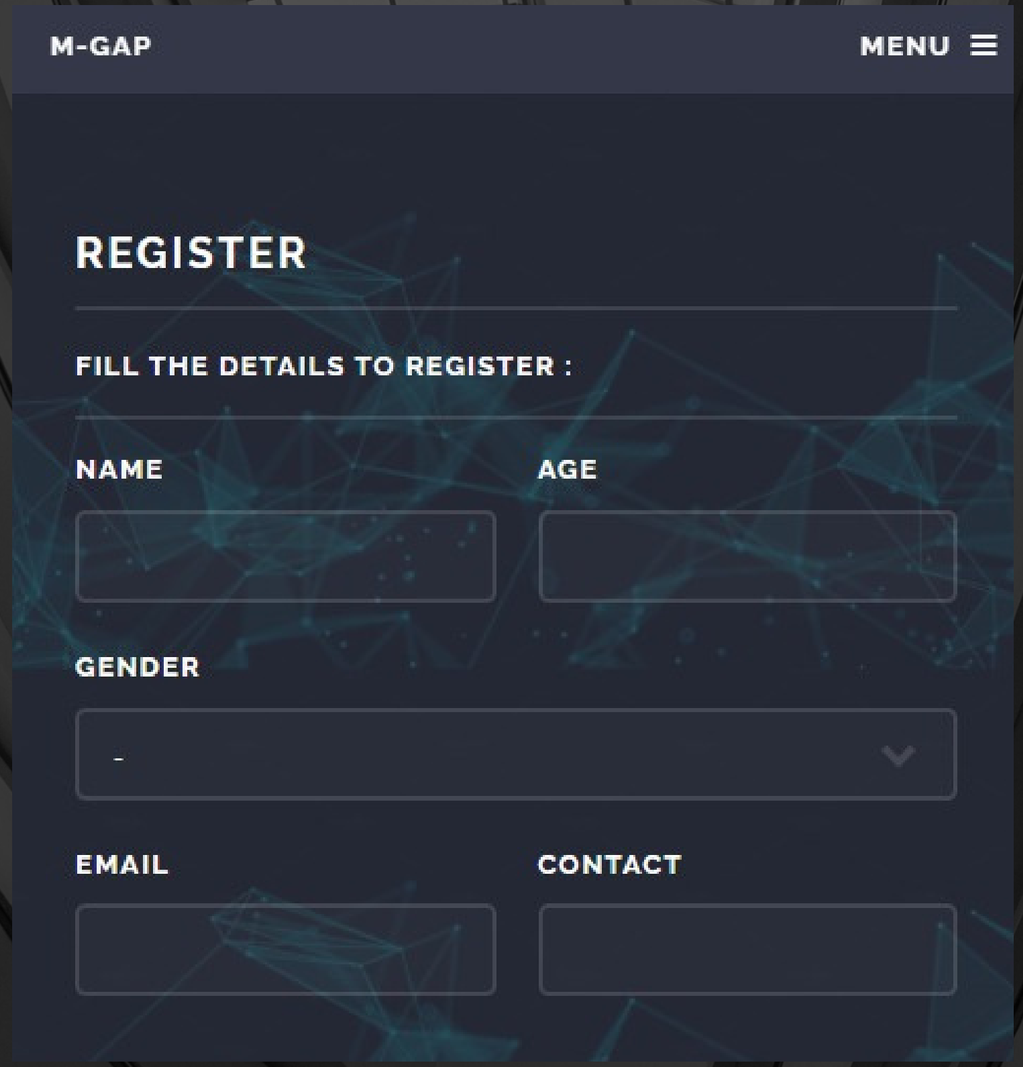
M-GAP WEB APPLICATION

HOMEPAGE SNAPSHOT



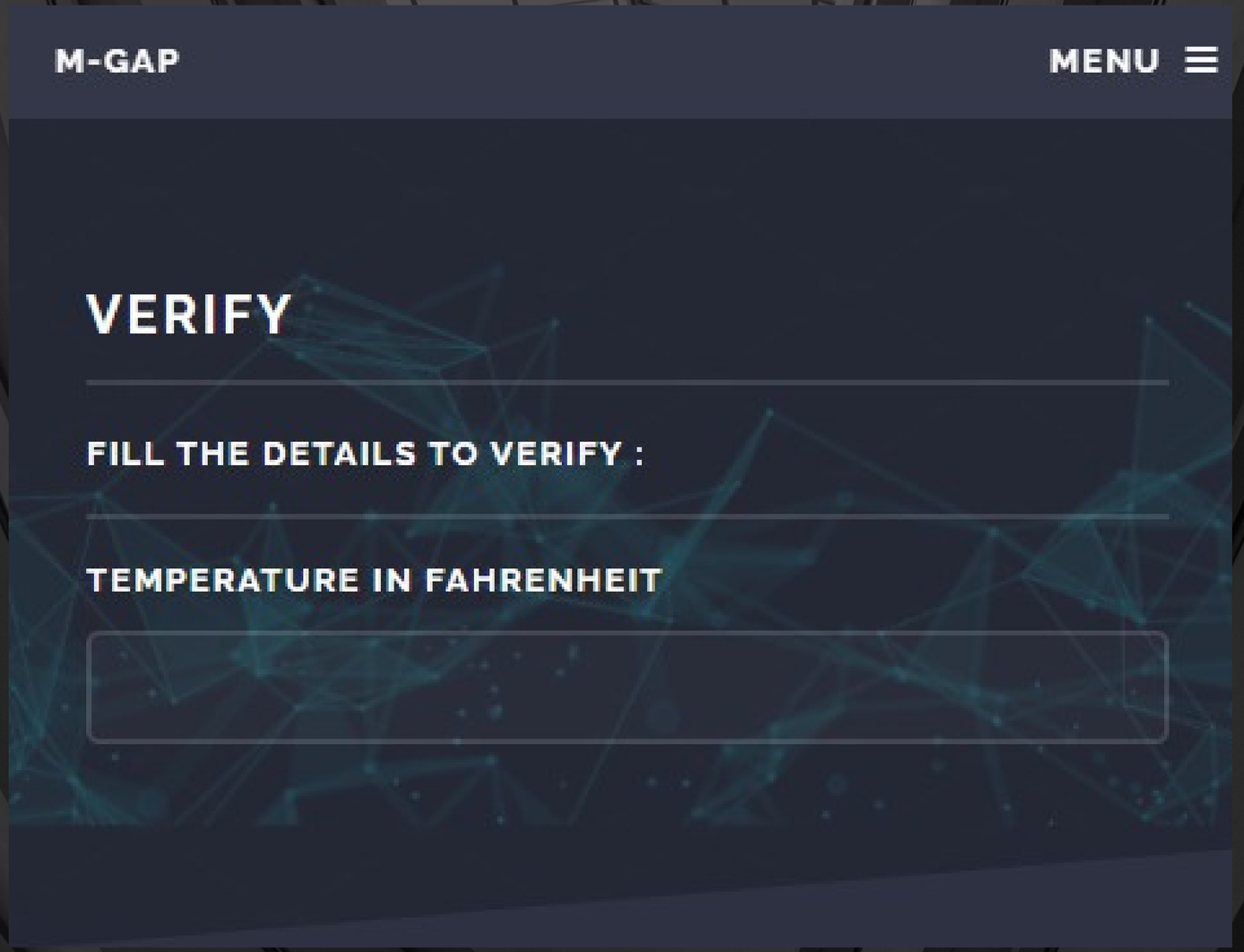
REGISTRATION PAGE

SNAPSHOT

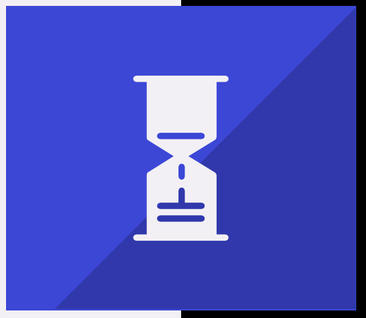


VERIFICATION PAGE

SNAPSHOT



OBJECTIVES



Design a working model of a temperature detector and face mask detection.

Create a user friendly web application.

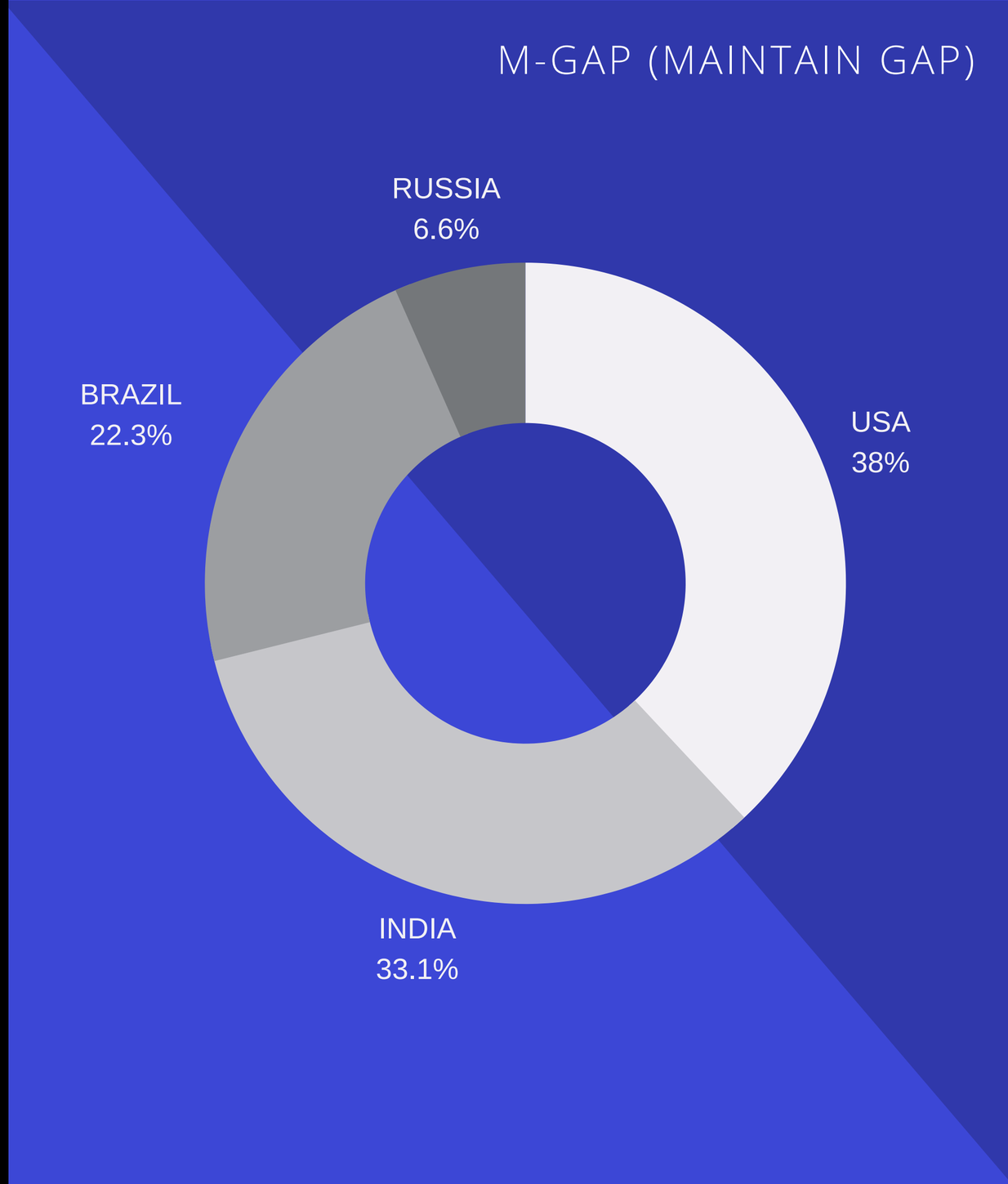
Learn how to create an application using Python Programming Language, Tensor flow, Open CV.

IMPORTANCE & NEED

- **CREATES A SAFE & HEALTHY ENVIRONMENT**
- **LESS CONTACT IS EQUAL TO MORE SAFETY**
- **CAN BE USED IN VARIOUS STORES, MALLS, AT THE ENTRANCE OF BUILDINGS ETC.**
- **CONFIDENCE FOR PEOPLE TO LEAVE THEIR HOMES**

COUNTRIES RANKED WITH HIGHEST NUMBER OF COVID CASES

Globally, India being ranked at the second position with the highest number of active cases will enable M-GAP to be used at its full efficiency. Hence, making it an essential system in maintaining the required security and safety measures..



M-GAP (MAINTAIN GAP)

PROPOSED METHODOLOGY

- Research about the hardware
- Explore using online resources on how to store images into the database.
- Research on how to create an application
- Code (together as a team) using Python to create a working temperature checker.
- Code to check whether a person is wearing a mask or not.

FEATURES

TEMPERATURE DETECTION

The application gives an indication that something is wrong when the temperature reading is higher than normal

FACE-MASK DETECTION

Tells whether a person is wearing a mask or not.

FACIAL RECOGNITION

Recognize s a person to store details.

DATABASE MANAGEMENT

Register's and stores temperature data of the user.

WORKING OF M-GAP

STEP 1

Register on the site by entering required details.

STEP 2

Get verified by entering your temperature and taking a snapshot.

STEP 3

The system check whether you fulfil all the conditions and generates an output accordingly.

A SAFE & HEALTHY ENVIRONMENT IS CREATED BY ALLOWING PEOPLE WHO SATISFY ALL THE CONDITION.

TOOLS & TECHNOLOGY

- OpenCV and Tensor Flow
- Dlib
- PostgreSQL
- Flask
- Heroku

M-GAP (MAINTAIN GAP)

Making things happen

INSPIRATION

Due to current pandemic situation it has become important to take precautionary measures which inspired us to create M-GAP.

INNOVATION

The innovation that our project proposes is not its technology or framework but the solution it provides to an existing problem that is worth solving.,

IMPLEMENTATION

M-GAP is a successful implementation of our idea. It is a user-friendly web application that ensures safety of each individual.

FUTURE PROSPECTS

MOBILE APPLICATION FOR ANDROID

NON-CONTACT HARDWARE DEVICE

MORE FEATURES

M-GAP (MAINTAIN GAP)

CONCLUSION

M-GAP is a complex ecosystem which can be efficiently connected across multiple stores and showrooms to make your journey hassle-free. Overall, the product is built atop user-friendly technology making it economically beneficial.

ROLE OF EACH MEMBER

GAZAL GUPTA

- DESIGNED FRONT-END & BACK-END OF WEB APPLICATION
- PRESENTATION
- BLOG

MITALI TAYAL

- FACIAL RECOGNITION
- TWITTER POST
- POSTER
- PRESENTATION

ARNAV SHARMA

- FACE-MASK DETECTION
- REPORT
- VIDEO EDITING

PRANJAL SINGH

- iOS MOBILE APPLICATION DEVELOPMENT
- REPORT
- VIDEO EDITING

VISIBILITY ON SOCIAL MEDIA

THANK YOU!