# Surakhsha Kavach : ML based Cross Platform Application for Covid-19 Vulnerability Detection

## Group No. 23

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# Introduction

- On December 31, 2019, a novel pathogenic Coronavirus (2019- nCoV) epidemic was first discovered in Wuhan, Hubei Province, South China.

- On March 11th, 2020, the World Health Organization declared it a Pandemic. COVID-19 is the official name for the Coronavirus illness. COVID-19 is an infectious disease caused by the Coronavirus 2 (SARSCoV2) that causes severe acute respiratory syndrome.

- World Health Organization (WHO) declared the outbreak a Public Health Emergency of International Concern. As this covid is becoming a concern for all of us and its spreading very fast.Its neccessary for us to take precautions as early as possible.

# Objectives

1. To Analyze the Data and describe the data/statistics of globe for predicting the current trend of COVID-19 infections in world using various machine learning algorithms.

2. To predict the percentage chances of having Covid-19 so we will use algorithms such as Decision tree, Random Forest and Support Vector Machine.

3. The idea of ML based app is to make people aware regarding their vulnerablities of covid attack which will help people to take precautions at an early stage to avoid further serious consequences and protect themselves and their family. Overall this app will be easily available on any platform which will help people to easily access and take the benefit of it. We have arrived at a conclusion that ML based Suraksha Kavach App is a much viable solution for the people to take precautionary measures at an early stage.

4. To build user Friendly Mobile Application.

# Problem Definition

- The overall global economy has been affected by this pandemic along with the health, safety and hygiene of individuals all over the world.

- People should know the overall rate of rising,death,vaccinations,recovery,etc all over the world.

- People should know how much age-wise vulnerable they can be affected by covid-19 to take precautionary measures as early as possible.

- In the existing system architecture, nowadays people are not much aware of the disease they are suffering from and with the flow they come up with a major disease like Covid.
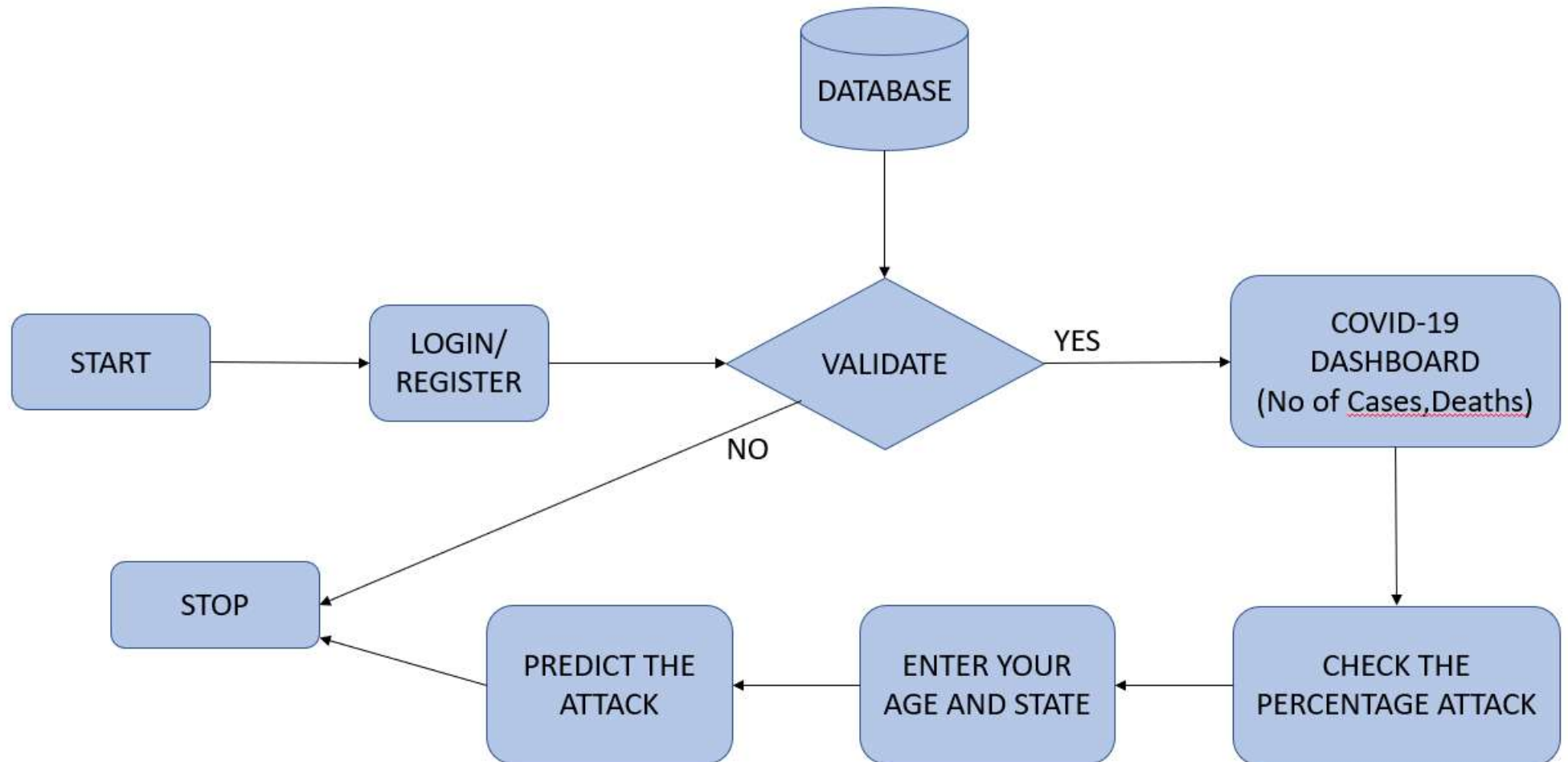
# Technological Stack

- Jupyter Notebook - Analysis of ML algorithm.

- Android Studio - For creating flutter based UI.
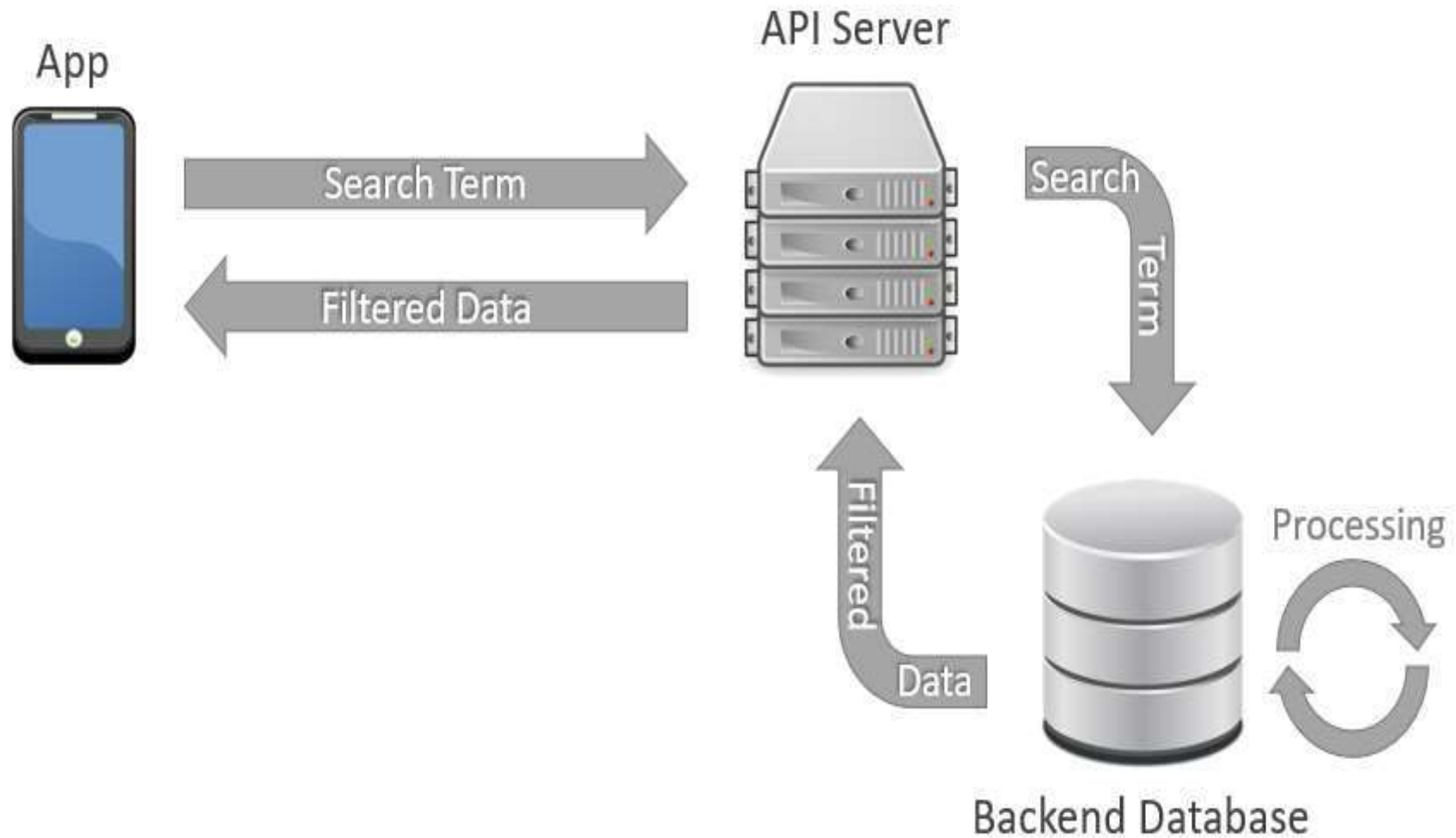
- Spyder - For backend.

- Database - MYSQL

# Review Suggestions (Given in Last meeting)

1. To Build an Mobile Application instead of web Application.

2. To have different languages in Application for Eg- Hindi,Marathi,etc.

3. To study the Algorithms precisely.

# Proposed System Architecture/Working

# Prototype Design Demonstration

# Implementation Status

## Screen 1

**2:16**  75%

# Suraksha kavach

Total | Today | Yesterday

**Total Cases**
**1.81 M**

**Deaths**
**105 K**

**Recovered**
**391 K**

**Active**
**1.31 M**

**Critical**
**N/A**

### Daily New Cases

25K
20K
15K
10K
5K
0

May 24 | May 25 | May 26 | May 27 | May 28 | May 29 | May 30

**Check my percentage attack**

## Screen 2

**2:16**  75%

# Suraksha kavach

## Covid-19 Statistics

Enter age

Select state

**Predict**

**Screen 1 (Login):**

आपल्या खात्यात
लॉग इन करा

Username

Password

☐ माझी आठवण ठेवा

लॉगिन करा

किंवा

खाते नाही? नोंदणी करा

**Screen 2 (Dashboard):**

सुरक्षा कवच

संपूर्ण          जाण          सारे

एकूण प्रकरणे
१.८१ लाख

मृतांची संख्या
१०५ हजार

वसूल केले
३९१ हजार

सक्रिय
१.३१ लाख

गंभीर
नाही

दररोज नवीन प्रकरणे

25K
20K
15K
10K
5K
0
May 24    May 25    May 26    May 27    May 28    May 29    May 30

माझा टक्केवारीचा हल्ला तपासा

**Screen 3 (Result):**

सुरक्षा कवच

कोविड-19
आकडेवारी

12

**Result**

High Vulnerable

OK

# Status of Paper Draft & Targeted Conference

**<u>Paper of our project has been done.</u>**

**Targeted Conferences**

- ICTIS 2022  6th International Conference on ICT for Intelligent Systems.

- ACIA-2022  International Conference on Applied Computational Intelligence and Analytics (ACIA-2022).

- ADSC-2022  International Conference on Advances in Data Science and Computing Technologies (ADSC-2022)

# Thank You...!!