#COVID-19 - Pandemic in India!

##About COVID-19

The **coronavirus (COVID-19)** pandemic is the greatest global humanitarian challenge the world has faced since World War II. The pandemic virus has spread widely, and the number of cases is rising daily. The government is working to slow down its spread.

Till date it has spread across 215 countries infecting 5,491,194 people and killing 346,331 so far. In India, as many as 138,536 COVID-19 cases have been reported so far. Of these, 57,692 have recovered and 4,024 have died. COVID19

**Corona Virus Explained in Simple Terms:**

* Let's say Raghav got infected yesterday, but he won't know it untill next 14 days
* Raghav thinks he is healthy but he is infecting 10 persons per day
* Now these 10 persons think they are completely healthy, they travel, go out and infect 100 others
* These 100 persons think they are healthy but they have already infected 1000 persons
* No one knows who is healthy or who can infect you
* All you can do is be responsible, stay in quarentine

Problem Statement:

India has responded quickly, implementing a proactive, nationwide, lockdown, to flatten the curve and use the time to plan and resource responses adequately. As of 23rd May 2020, India has witnessed 3720 deaths from 32 States and Union Territories, with a total of 123202 confirmed cases due to COVID-19. Globally the Data Scientists are using AI and machine learning to analyze, predict, and take safety measures against COVID-19 in India.

**Goal:**

We need a explore the COVID situation in India and the world, and strong model that predicts how the virus could spread across India in the next 15 days.

###Tasks to be performed:

* Analyze the present condition in India
* Scrape out the COVID-19 from websites
* Figure out the death rate and cure rate per 100 across the affected states
* Create different charts to visualize the following:
  + Age group distribution of affected patients
  + Total sample test done till date
  + Growth rate of COVID in top 15 states
  + Top 10 States in each health facility
  + State wise testing insight
* ICMR testing centres in each state
* Use Prophet to predict the confirmed cases in India
* Use ARIMA to predict the confirmed cases in India
* Compare the Indian COVID cases globally

