# CrowdStrike Hackathon
# Every Second Counts

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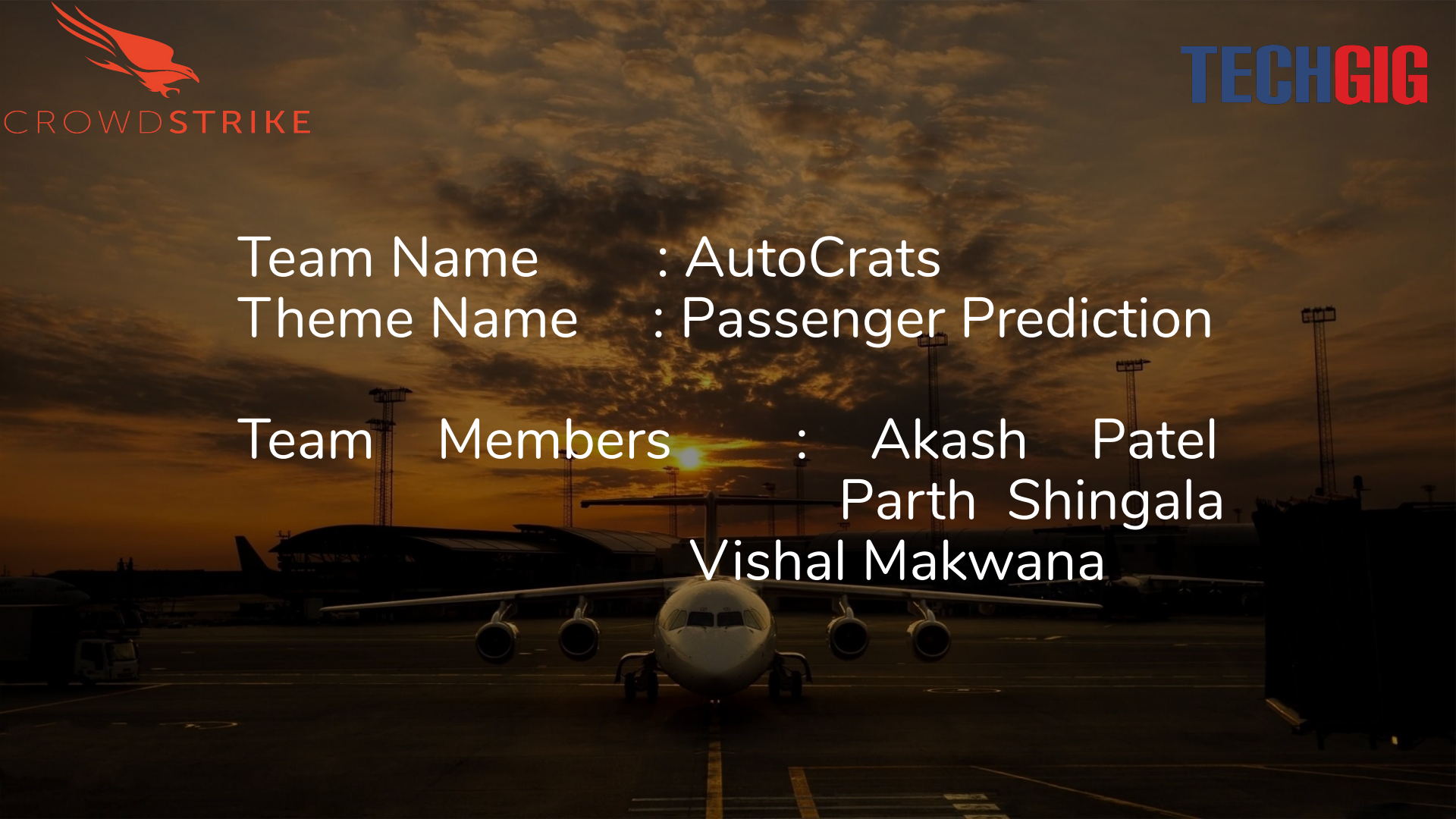
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Team Name : AutoCrats
Theme Name : Passenger Prediction
Team Members : Akash Patel
Parth Shingala
Vishal Makwana

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## **Background**: Passenger Prediction

- Thousands of people travel every month from India to another countries and thousands come to India from another countries.
- If we predict how many people travel abroad in a month, it would be easier for airplane companies to schedule their flights.
- Predicting number of passengers leads to an efficient utilization of the company's resources which increases the company's profit.

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# Definition:

- Each year a large number of flights land in India carrying thousands and lakhs of people form different parts of the world..
- Predicting the crowd for the upcoming year can help in making the arrangements and facilities better.
- The prediction can be useful for a large number of business domains

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# Solution:

- The details about the flights and their passenger capacity is provided for different years and quarters and we have to predict the passenger coming to India for the first quarter of the next year.
- So first data was pre-processed and all the missing data was filled using the passengers from India column
- Next the data was pivoted and country names were sat as columns with Passengers to India as values.
- After the data was created, we applied time series for series prediction for the next quarter.

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# Deliver:

- The data we obtained is converted into country name as columns
- One column at a time is sent into the model for prediction.

| COUNTRY_NAME | Date | AFGHANISTAN | AUSTRALIA | AUSTRIA | BAHRAIN | BANGLADESH | BELGIUM | BHUTAN | BURMA | CANADA | ... | TAIWAN | TAJIKISTAN |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 0 | 2015-01-01 | 37194 | 16676 | 13318 | 114087 | 76357 | 21266 | 6251 | 9540 | 13272 | ... | 2595 | 554 |
| 1 | 2015-04-01 | 26708 | 13117 | 10481 | 131510 | 66500 | 18593 | 12345 | 3688 | 9404 | ... | 1288 | 2600 |
| 2 | 2015-07-01 | 27081 | 15141 | 14994 | 118138 | 73625 | 22725 | 6868 | 2339 | 11480 | ... | 1472 | 541 |
| 3 | 2015-10-01 | 24290 | 18058 | 15418 | 134988 | 82047 | 24329 | 11121 | 7124 | 22728 | ... | 4858 | 558 |
| 4 | 2016-01-01 | 39719 | 16981 | 10892 | 131984 | 83989 | 18265 | 9083 | 9006 | 28745 | ... | 4218 | 848 |
| 5 | 2016-04-01 | 22483 | 15797 | 6363 | 141578 | 82053 | 0 | 15185 | 3203 | 21579 | ... | 2057 | 1149 |
| 6 | 2016-07-01 | 28759 | 16293 | 7938 | 138471 | 83101 | 0 | 10566 | 2372 | 25816 | ... | 3614 | 1050 |
| 7 | 2016-10-01 | 37827 | 19627 | 7903 | 135094 | 86076 | 0 | 13170 | 13609 | 40920 | ... | 6727 | 944 |

8 rows × 52 columns

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Trend patterns of passengers to Bangladesh

```
sns.lineplot(x='Date',y='BANGLADESH',data=train2)
```

```
<matplotlib.axes._subplots.AxesSubplot at 0x156943caec8>
```