ABB HackFest 2022

Your way to a world class data science team

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Global Head, Advanced Analytics & Artificial Intelligence

Well positioned across global markets

ABB is a leading global technology company that energizes the transformation of society and industry to achieve a more productive, sustainable future.

By connecting software to its **electrification, motion, process automation and robotics & discrete automation** portfolio, ABB pushes the boundaries of technology to drive performance to new levels.

ABB India: 100+ years presence with unique confluence of business, GBS & AIC

Established platform in India to drive next level growth for ABB Group


Maneja,
Vadodara


Nashik


Faridabad

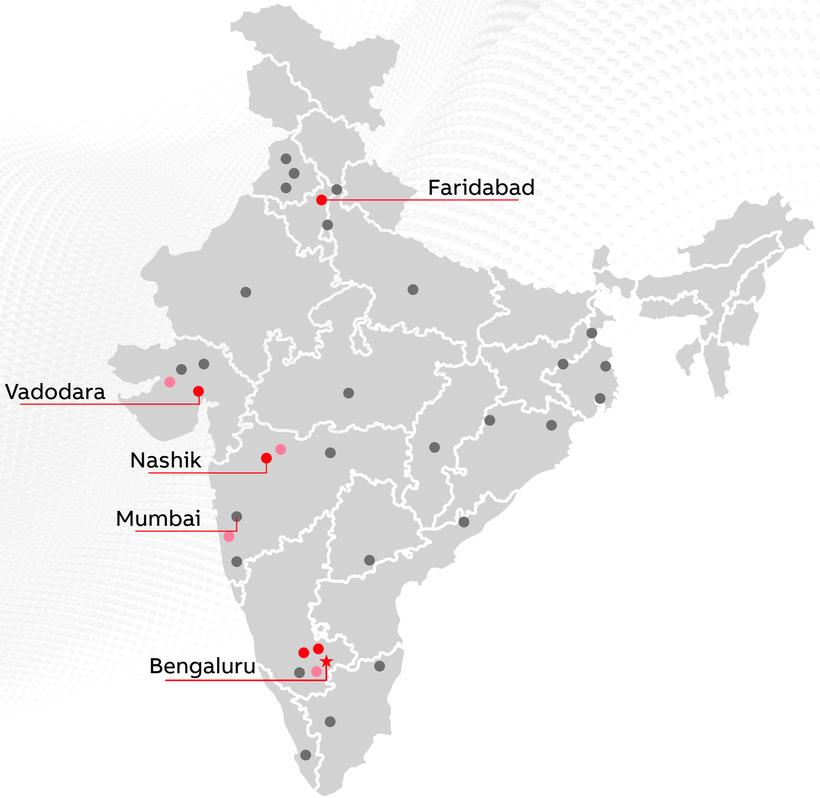

Peenya,
Bengaluru


Nelamangala,
Bengaluru

Head office,
Bengaluru


AIC
Whitefield,
Bengaluru


GBS
Hebbal,
Bengaluru



5 Manufacturing locations
25 Manufacturing plants
21 Divisions

5 Sales offices

7500+ Colleagues

★ Head office, Bengaluru

● Key manufacturing locations

● Sales and branch offices

● R&D center

Learn about the Advanced Analytics and Artificial Intelligence (AA&AI) team:

- The Bengaluru-based AA&AI team is led by Rupesh Khare as a part of the Financial Planning and Analysis CoE function at ABB
- The team supports ABB businesses across the globe with the data science skills, methods, framework and products required to mine valuable insights that transform their business operations and assist with strategic decision making
- AA&AI is driven by the ABB values of Courage, Care, Curiosity and Collaboration in everything they do

Team of professionals:
- Data Scientists
- Pricing Analysts
- BI analysts
- Domain Experts

Diverse background:
- Statistics
- Mathematics
- Finance
- Engineering
- Economics
- Management

Tools and technologies:
- Python
- R
- Azure Cloud Services
- Alteryx, Snowflake
- Visualization
  - PowerBI
  - Dash, Streamlit
- PowerAutomate

Project Portfolio:
- Machine learning
- Deep learning
- Artificial Intelligence
- Visualization
- Automation

Experience
7+ years of average analytics experience

Services:
- Analytics services and products
- Manufacturing
- Supply chain and operations
- Product and pricing
- Marketing and sales
- Finance
- Digital academy

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ABB is organizing a data science Hackathon across prestigious colleges to attract talent for internship.

- The hackathon will take place over **2 weeks**
- The top shortlisted candidates will be offered a paid six-month internship at ABB starting from **January 2023**
- The chosen candidates will receive a **monthly stipend of INR 25,000/-** for the duration of their internship

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Eligibility criteria:

- Candidates in their final year of college and available for a six-month internship between **January – June 2023**
- Individuals with a **keen interest in data science**
- Individuals open to **operating from Bengaluru during their internship;** Hybrid mode of work with two days a week in the office

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Application process:

- To register, click on the following link and submit our details: https://forms.abb.com/form-57278/form
- Address the problem statement with the mentioned timeline and send your solution to: in-abbhackfest@abb.com

Selection criteria:

- Your solution will be evaluated based on model robustness, accuracy, novelty and approach to the solution
- The top finalists will be invited to present their solutions at our ABB office in Bengaluru

Awards:

- The top shortlisted candidates at the end of ABB HackFest will be offered a paid internship opportunity with the Advanced Analytics and Artificial Intelligence team at ABB

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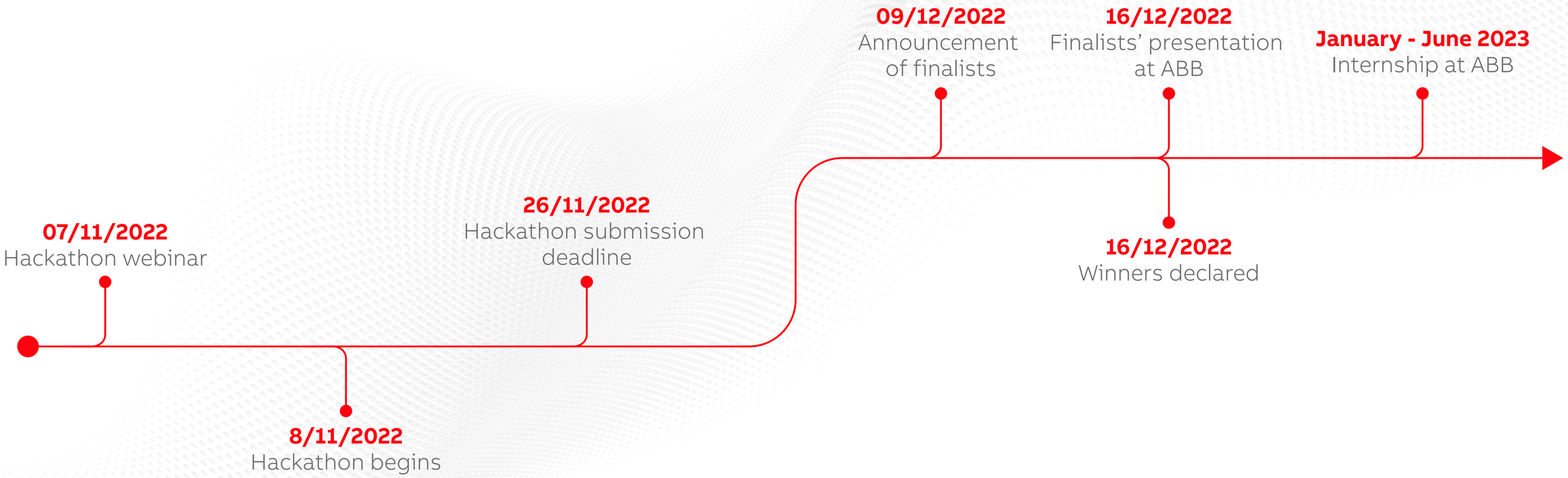
Timeline:



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Business problem:

Anamika Sharma, Global CFO of Unknow Inc, a USD 45 billion manufacturing company is reviewing fifteen months' (2022 May to 2023 July) Total Order Forecasts for five major countries (Canada, China, Germany, Italy and USA) submitted by her Financial Planning team. She is not quite convinced about the business outlook the team has projected for her.
The team has simply captured the total order trends of the last few months and predicted the order inflow. Anamika knows that given Unknown Inc's majority of the business comes from the units producing Earth Moving equipment, the total orders inflow is highly dependent on micro and macro-economic indicators and also does not follow a clear trend and seasonality. Another aspect of the complexity is the inflow of very large orders which disturbs the trend of base orders (Total Order = Base Orders + Large Orders). She invites you to assist her and has shared 40 months of Total Orders data for the five countries.

Submission of solution

- Zipped document containing:
  - Jupyter Notebook (.html format)
  - .py file
- Submission file containing forecast values for all the countries in the following format - Date, Canada, China, Germany, Italy, USA. The final submission file should be in .csv format with 6 columns ordered as mentioned

Assessment criteria

- Accuracy of the forecast
- Descriptive analysis
- Modelling approach
- Structure of python code