IDEATHON '22

TEAM'S NAME: Forged Titans

TEAM MEMBERS:

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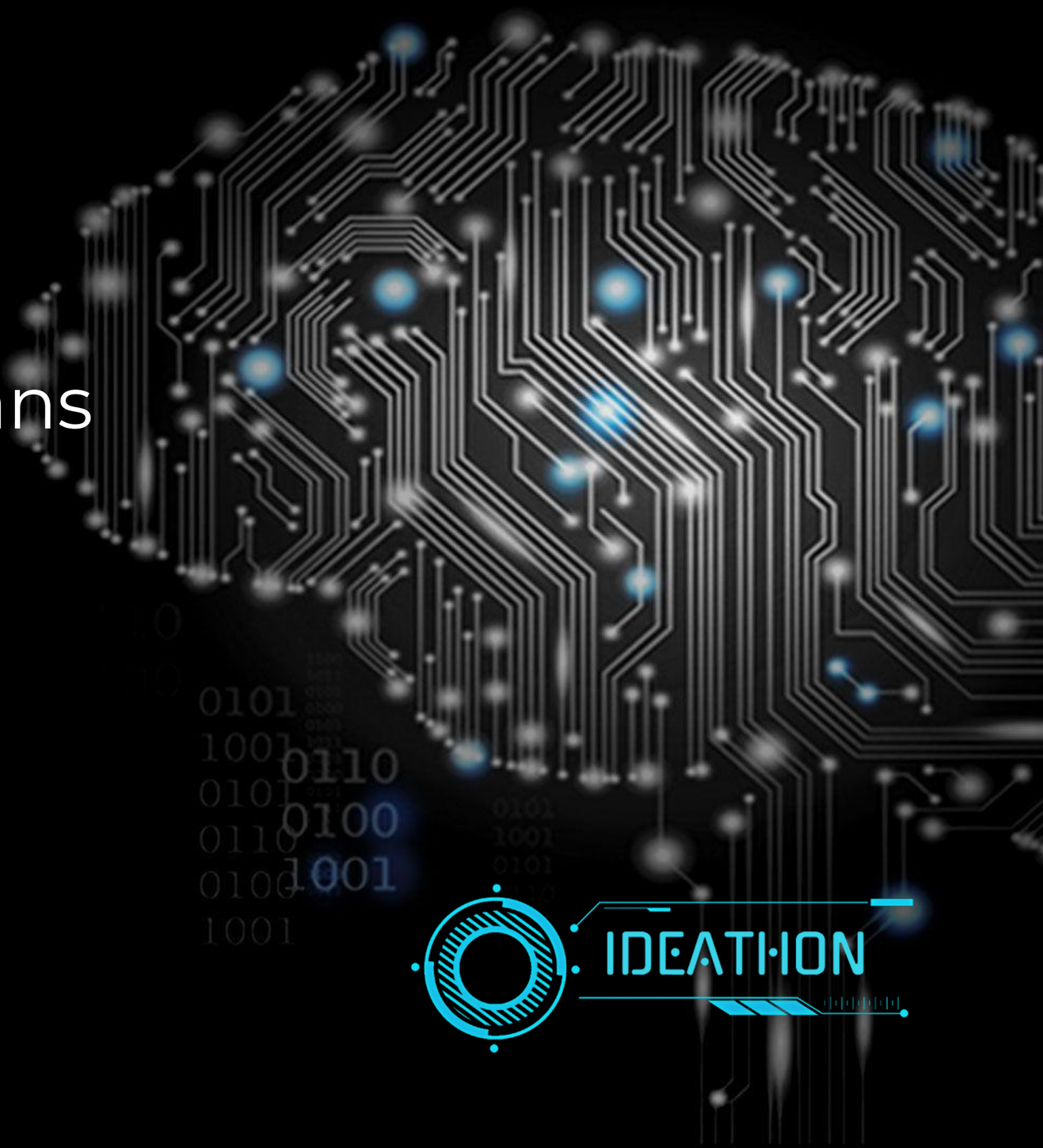

A.I. CLUB

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THE IDEA

IDEA - Developing artificial intelligence (AI)-based software that can address supply-demand issues in supply chains and slow logistics.

Why we have chosen to work upon this idea???

- In this period of globalization, there is a lot of trade between nations, supported by extensive supply chains and logistics.
- Inefficiency, a lack of coordination, and loose tracking are just a few of the dynamic issues plaguing this enormous network of supply chains and logistics. These issues cause delays and cost the shipping industry billions of dollars annually.

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- To address these issues with supply chain and logistics, we are developing software that will accurately forecast where a certain product will have the greatest demand and communicate that information to the appropriate producer in a different area of the world.

- Peak Season and Blank Sailing issues are acknowledged and addressed concurrently in logistics.

PRE EXISTING SIMILARITIES

- ***Youhualin***

Chinese firm Youhualin makes data-driven logistics efficiency possible. Its demand forecasting and replenishment solution creates predictive models for the sales and logistics teams using AI and big data. For accurate error prediction and a model with less error, the approach includes prediction bias correction and model tweaking. This enables businesses to estimate demand accurately and schedule replenishments as necessary.

- **SCOPT**

An Indian startup company called SCOPT Analytics is focused on using data analytics to maximise supply chain efficiency. The demand forecasting software developed by the firm assesses internal business procedures and critical performance factors (KPIs). To obtain precise projections of the demand for logistics, the data is then combined using the company's own machine learning-based demand forecasting platform. Additionally, the business regularly improves the demand forecast models for its customers.

- ***OMNICS***

Using historical data, US-based firm Omnics creates a digital supply chain planning and execution software platform. For effective demand planning and forecasting, the startup also enables businesses to tailor Omnics' platform in accordance with their internal business procedures. This helps businesses raise sales, save expenses, and reduce risks.

- ***usizy***

A machine learning-based platform for stock optimization, improving price intelligence, and logistics planning is offered by the Spanish firm uSizy. With the help of its smart logistics platform, firms can properly arrange their transportation and stock levels in order to increase profitability. The programme also forecasts the products and sizes that have a higher likelihood of being returned.

- ***Owl Solutions***

Demand planning is made easier by a supply chain analytics library provided by Canadian firm Owl Solutions. The platform forecasts consumer demand using supply chain key performance indicators (KPIs), such as forecast accuracy, forecast bias, and changes. Additionally, by lowering operational risks and enhancing customer service with demand projections, the technology helps organisations to save money.

TARGET AUDIENCE

- Retailers/Wholesalers.
- Logistics Service Providers,
- Charities
- Software Houses
- Manufacturers

IDEATION

DESIGN, IMPLEMENTATION AND ANALYSIS

- We are going to use a classification model to predict the future demand of several places while also using clustering to make the transportation of goods as efficient as possible and all of these models would be further trained on the feedback loop.

- All of this is going to be integrated in our phone app and website which would have a freemium model of payment.

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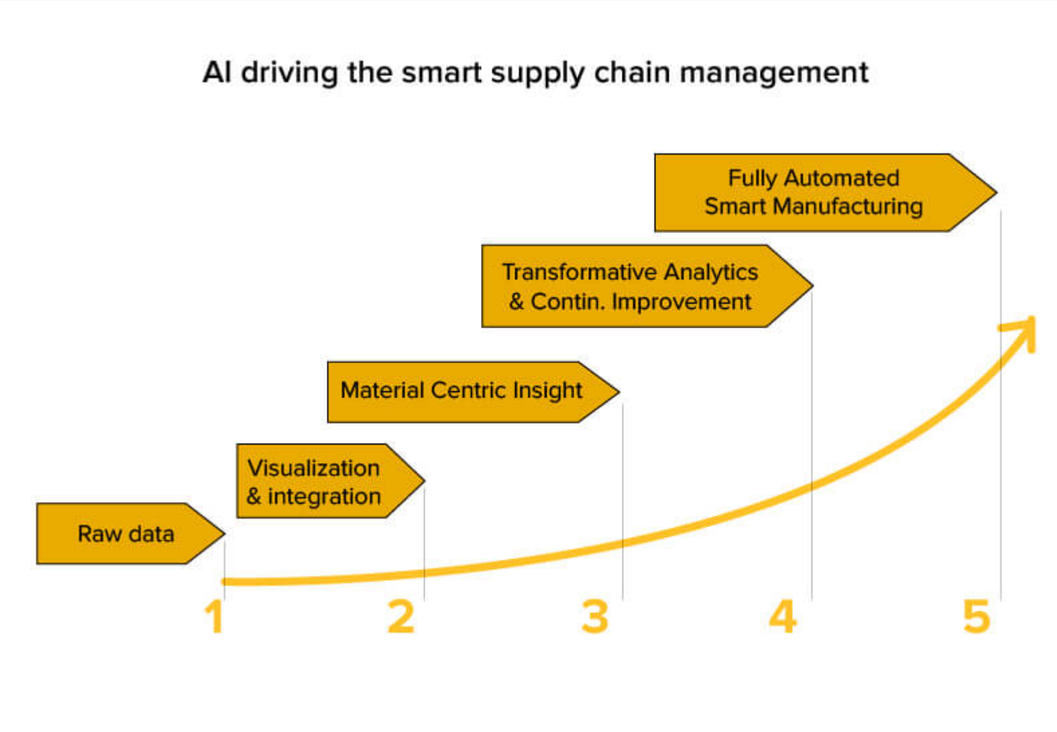
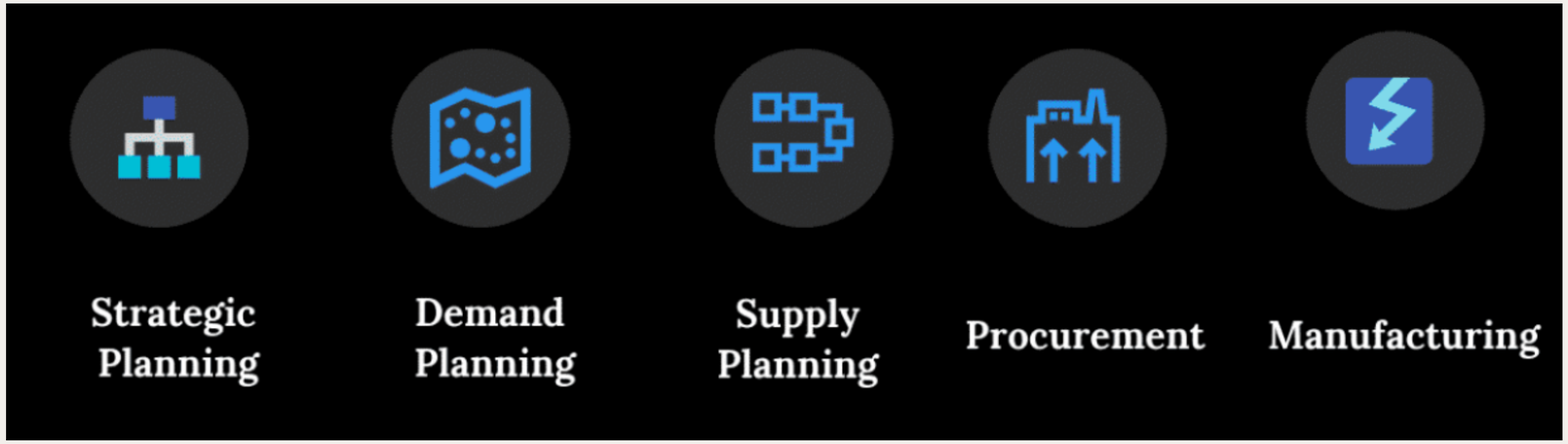
- We would also use proprietary technology to store and handle all of our data to make sure that our future dependancy on external sources is as low as possible to ensure consistency and stability.

- Since our business is mainly going to be harnessing the power of cloud and would run on proprietary technology it would also be very scalable.





- Our AI model will offer the most accurate insight or forecast for a certain product's demand in a particular region and will give suppliers the finest insight into where to deliver their goods to maximize profits.

- Then, as cargo ships arrive at their destination with the requested product from the supplier, they will be able to drop the containers immediately and without delay. Our AI model will then optimize it so that the cargo ship drops the containers at the appropriate time to prevent delays that result in huge losses.

KEY DIFFERENTIATORS AND ADOPTION PLAN

- **How our solution is better than alternatives ???**

- Our software will examine a wide range of KPIs, from demand at a specific location to the optimization of business practices to lower shipping costs.

- Our AI software will offer such an optimised solution that vessels arrive at the port at such a time that they may drop at their cargo instantaneously and can proceed for next contract. Due to the heavier-than-usual flow of products, ports take longer to handle vessels, which results in delay for days. Due to these delays heavy loss of capital happens.

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- The issue of blank sailings arises when a ship's cargo load is insufficient compared to its carrying capacity. Because our AI software can provide such a detailed understanding of regional demand, a ship employing our services won't ever experience this issue.

- We'll make sure the vessel employing our services receives new cargo as soon as possible in that same port for a new destination when the vessel drops off its container at a certain port.


Thank
you!