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Request for Proposal

RFP: Transportation Management System & Demand Forecasting System	Proposal Due By: [5/17/24]	Northwind Traders
<p>Project Overview:</p> <p>Northwind Traders is an international reseller and distributor based in the United States that specializes in selling high-end food and beverages to grocery stores across the Americas and Europe. We are currently searching for a company that has expertise in machine learning, predictive analytics, generative AI, and transportation systems to develop a transportation management system and demand forecasting system for our company. The goal of this partnership is to significantly decrease costs and enhance efficiency within our organization.</p>		
<p>Project Goals:</p> <ul style="list-style-type: none">• Goal 1: Effective And Scalable System Implementation The highly complex systems of Transportation Management System and Demand Forecasting System should be implemented on a strong budget and within five month's time frame. Scale up for every system so that it can still accommodate future growth and adapt to existing technologies and infrastructure available at Northwind		

Traders Company.

- **Goal 2: Improved Decision-Making and Operational Efficiency**

Enabling Northwind Traders to improve their work efficiency and the required decision-making skills through the integration of novel sciences in new systems. It is for TMS to set up the transport logistics right and reduce costs, while DMS helps better forecast demand and so less inventory gets spoiled or expires.

- **Goal 3: Robust collaboration and knowledge exchange**

Set up collaborative partnership with selected vendors that is focused not only on delivery of the systems instead transferring of knowledge to Northwind Traders' internal teams. This collaboration must include training sessions, detailed documentation, and post-implementation support so that Northwind can use and maintain the systems without depending excessively on the vendor.

Scope of Work:

Transportation Management System:

The main necessities for this transportation management system include capabilities such as freight data analysis, freight shipment summary, volume analysis, performance analysis, and financial analysis. The time, cost, and quality needed for this system are essential to build up this project so we have set standards and instructions. To maximize efficiency and set deadlines, we expect to implement our team with the external team. We will use an agile-waterfall hybrid methodology. The initial stage of researching and planning within the company will be done through waterfall methodology to ensure the most efficient use of time and resources. This includes who will participate in the project and what initial resources and documentation are needed. The implementation and development of the transportation management system will be done by the external vendor. First, we expect a roadmap from the external vendor that includes estimates of the time and cost for the implementation. These steps should include the development of the software, the demoing for our platform, and the integration into our platform and data. Though the outside vendors work mostly without interference from the company team, the company team makes sure the vendors work efficiently and produce within deadlines. Our company team will plan steps such as research and provide resources while the outside vendors develop, implement, and maintain. The expected implementation of the TMS is within five months.

Demand Forecasting System:

The main necessities for the demand forecasting system include consumer expectation analysis, data selection, data cleansing, and forecasting through AI and data. We expect from the external vendor a set plan for implementation and development. The standards of quality and needs include ease of use, automation features, and a clean user interface. In this scenario, an agile-waterfall hybrid methodology would work. Our internal team will be able to set deadlines and provide info on how to plan according to our company and standards. The external vendor will develop the software and make it compatible with our data and system. The UI should be clean, easy, and simple to use. The testing and integration into our system should be smooth with bugs and issues being found and fixed. The maintenance of this system, if anything goes wrong, should also be prioritized. The expected implementation

of DFS is within five months.

Current Roadblocks and Barriers to Success

- Short Implementation Timeframe
 - Considering how difficult it will be to integrate powerful machine learning and predictive analytics capabilities, the five-month timetable for implementing the TMS and DMS is extremely arbitrary. Within such a short timeline, developing and testing these systems to make sure they fulfill all requirements.
- Dependency on External Vendors
 - Both systems rely significantly on the knowledge and prompt delivery provided by outside vendors. If the vendors encounter their own difficulties, such as shortages of resources, technological problems, or mismatches in project goals, this dependence raises the possibility of delays and complexities.
- Integration and Compatibility with Existing Systems
 - According to the scope of work, both systems need to be modified to fit into Northwind Traders' current infrastructure and technological capabilities. The difficulty is going to be in combining the new TMS and DMS with the existing systems, which may not be up to date or compatible with the newest offerings from the vendors.

Evaluation Metrics and Criteria

- Criteria #1: Experience and Expertise:
 - Demonstrated experience in developing and implementing transportation management systems for companies in the food and beverage industry.
 - Proven track record of successfully integrating TMS solutions that optimize transport logistics, reduce costs, and improve operational efficiency.
 - Familiarity with international transportation regulations and best practices in cross-border logistics.
- Criteria #2: AI and Predictive Analytics Expertise:
 - Specialization in developing demand forecasting systems powered by artificial intelligence and predictive analytics algorithms.
 - Experience in analyzing historical sales data, market trends, and external factors to generate accurate demand forecasts for perishable goods.
 - Knowledge of machine learning techniques and statistical models for demand forecasting, with a focus on reducing inventory spoilage and optimizing inventory management.
- Criteria #3: Collaboration and Communication:
 - Ability to work collaboratively with internal teams and stakeholders to understand business requirements, gather feedback, and address concerns throughout the implementation process.
 - Transparent communication channels and regular progress updates to ensure alignment with project timelines and objectives.

<ul style="list-style-type: none"> - Responsive customer support and post-implementation assistance to resolve issues and provide ongoing maintenance and support. 		
<p>Submission Requirements</p> <ul style="list-style-type: none"> • Requirement 1: Technical Approach and Methodology <ul style="list-style-type: none"> - The proposal needs to outline the proposed technical approach for the transaction systems. This includes an overview of the design and implementation, and how the transactional and analytical system will be configured. Benefits of the systems should also be conveyed. • Requirement 2: Post-Implementation Support <ul style="list-style-type: none"> - Continued support and maintenance services after the implementation of the project are crucial and will need to be established. These services will include a help desk, software updates, bug patches, and system enhancements. These will help to maintain the longevity of these systems. • Requirement 3: Risk Management <ul style="list-style-type: none"> - Roadblocks and other factors that can interfere with the success of the project need to be addressed. Methods to mitigate these risks also need to be discussed. Factoring these in will help increase the success of the project, despite unforeseen challenges that may occur. Without preparing for risk the systems have a higher chance of failing. 		
Project Due By: [10/18/2024]		Budget: [\$1,000,000]
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Vendors to whom the RFP will be sent:

1. Oracle
2. Guac
3. Deposco