

# HedgeWise: Revolutionizing Risk Management

Discover how HedgeWise utilizes AI technology to empower treasurers with real-time insights for managing foreign exchange, commodities, and geopolitical risks effectively.

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Al Hedging

## **HedgeWise - AI Hedging Platform**

Discover how HedgeWise transforms the landscape of risk management for treasurers, leveraging cutting-edge Al solutions to enhance financial stability and decision-making.



### **Introduction to HedgeWise**

Understanding the Role of HedgeWise in Risk Management

### Overview of HedgeWise **Tailored Solutions** An Al-driven platform that aids treasurers in managing FX and geopolitical risks effectively.

Utilizes real-time data analysis and machine learning to provide customized risk management solutions.

### **Target Audience**

Specifically designed for treasurers at large corporations like Shell to optimize their hedging strategies.



### Core Features of Our Al Hedging Platform

Explore the essential features designed for treasurers

### **Real-time FX Rates**



Displays the latest exchange rates for various currency pairs to facilitate informed trading.

### **Flashing Price Indicators**



Dynamic indicators that help visualize market changes, allowing traders to react promptly.

#### **Interactive Data Table**



Shows real-time data including open, high, low, close prices, and volume for comprehensive analysis.

### **Personalized Risk Insights**



Provides detailed risk assessments tailored to individual user exposure for better decisionmaking.

### **AI-Powered Recommendations**



Machine learning models suggest the best hedging strategies to optimize trading outcomes.

### **Latest Data Integration**



Ensures the platform always displays the most recent and relevant information for traders.

### **Commodity Risk Management**

Focus on strategies to manage exposure to fluctuating commodity prices, ensuring stability in operations.



## Comprehensive Strategies for Hedging Risks

Effective Approaches to Navigate Market Volatility

### **FX Risk Mitigation**

Implement techniques to mitigate risks arising from foreign exchange rate fluctuations, protecting profit margins.



### **Geopolitical Risk Hedging**

Develop hedging strategies to counteract potential impacts of political instability and global events on business.



## Machine Learning Integration Techniques

Leveraging AI for Enhanced Financial Strategies



Real-Time Market Data Processing

Daily Prediction
Updates

Machine learning models, like Random Forest, predict risk exposures and market volatility effectively. Continuous analysis of market data ensures that recommendations are timely and relevant to current conditions. Daily data updates refine AI predictions, enhancing the accuracy of hedge recommendations.

## **Key Advantages of AI in Treasury Management**

Exploring the transformative benefits of Al solutions

### **AI-Driven Insights**

Utilize machine learning for effective hedging strategies, enhancing decision-making processes.

### **Real-Time Data**

Stay updated with immediate market fluctuations, enabling proactive risk management.

### Seamless User Experience

Enjoy a user-friendly interface that provides interactive data and risk insights for users.

### Scalable & Robust

Leverage modern technologies designed for scalability, supporting growth and performance.

### **User Journey**

Detailed steps for effective user interaction



### Step 1: Login and Authentication

Users securely log in using Firebase for authentication, ensuring data safety.



### Step 2: Data Upload for Al Analysis

Companies upload vital data for real-time Al-driven market analysis integration.



### **Step 3: Review Insights**

Users access comprehensive risk profiles and market insights generated by Al.

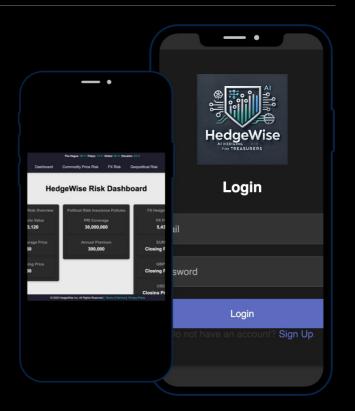


### **Step 4: Implement Hedging Strategies**

Optimal hedging strategies are executed to effectively mitigate financial risks.

## HedgeWise Platform

Explore the Key Features of Our Application



### **Tech Stack Diagram Overview**

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#### Frontend

Utilizes React.js, Redux, Axios, and Styled Components for building user interfaces and managing state.



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### **Backend**

Incorporates Django, FastAPI, and Django Rest Framework (DRF) for robust serverside development.

### **Database**

Employs PostgreSQL for relational data storage alongside Firebase for real-time data handling.





### **Market Data APIs**

Integrates external APIs to access market data, enhancing application functionality.

01

### Frontend Technologies

Utilizes modern frameworks and libraries for dynamic user experiences. 02

### React.js

Dynamic, responsive user interface design for enhanced user engagement. 03

### **Redux Toolkit**

Provides efficient state management, ensuring smooth interactions within the app. 04

#### **Axios**

Library utilized for retrieving realtime market data seamlessly. 05

## Styled Components

Enables modular CSS, ensuring a consistent and maintainable UI design.

06

### Firebase

Offers NoSQL database solutions, along with authentication and storage services. 07

### Backend Technologies

Robust frameworks for secure and scalable backend operations. 08

### Diango

A powerful Python web framework that facilitates backend operations. 08

### Django REST Framework

(DRF)

Simplifies the creation of secure and scalable RESTful APIs efficiently.

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### **FastAPI**

Highperformance API framework that provides AI capabilities.

### **Tech Stack Overview**

A detailed look at our frontend and backend technologies

### **Deployment & Hosting Overview**

**Exploring Technologies for Effective Deployment** 

01

### **Frontend Hosting**

Hosted on Netlify, allowing for continuous deployment and scalable solutions for the user interface.

03

### **Database Management**

Utilizes Firebase for real-time database capabilities and robust user authentication management.

02

### **Backend Deployment**

Deployed on Render, leveraging Django and FastAPI for efficient API handling and performance.

04

### **Real-Time Data Integration**

Incorporates free APIs to ensure market data remains current and readily available to users.



## **Next Steps in Financial App Development**

Strategic actions for successful rollout



### **Finalize Development**

Complete app integration and finalize Al-powered recommendations for users.



### **User Testing**

Conduct beta testing with company treasurers to validate the app in real-world scenarios.



### **Market Expansion**

Rollout the app for broader adoption within financial institutions and companies.

