**MOSCOW ANALYSIS FOR AEROSENSE SMART INDOOR AIR QUALITY HUB**

**Must Have:**

Indoor Air Quality Monitoring: Real-time tracking with integrated PMS7003 and BME680 sensors for particulate matter and VOCs.

Alert System: Immediate alerts via the hub and app for deteriorating air quality levels.

App Connectivity: Seamless data transmission to the Aerosense mobile application.

Mobile Notifications: Push notifications for air quality alerts and actionable recommendations.

Data Logging: Storage of air quality data and history for at least 7 days within the app.

Device Management: Features to check the hub's connectivity and battery status within the app.

Portability: The hub must be easy to transport and set up in various indoor environments.

Response Time: Data relay from the hub to the app must occur within 10 seconds.

Community Data Sharing: Anonymized data sharing to contribute to community health insights.

**Should Have:**

Extended Data Insights: Capability to provide insights beyond readings, like trends over time.

User Profiles: Custom user profiles within the app to tailor alerts and recommendations.

Aesthetic Design: The hub should have a user-friendly and aesthetically pleasing design.

Health API Integration: Incorporating external health data, such as pollen counts, for comprehensive monitoring.

Low Battery Notification: The app should notify users when the hub's battery is low.

User Interface: Intuitive and accessible design for the app interface.

**Could Have:**

Educational Interface: The app should educate users about air quality and asthma management.

Inhaler Usage Alerts: Notifications for medication based on air quality triggers.

Air Quality Reports: Monthly summaries and reports on air quality and usage patterns.

User Customization: Personalization features within the app for alerts and data display.

**Would Like to Have:**

Advanced Analytics: More detailed analysis features for users who wish to know more about their air quality data.

Future Expandability: Ensuring the system is designed for easy updates and the addition of new sensors or features without a complete redesign.