

User Stories for IoT Data Management Platform

1. Exploring the Homepage

As a new user,

I want to explore the Homepage to learn about the platform's features, select data and graph types, analyze sensor data, and view visualizations,
so that I can understand the platform's capabilities and start working with my IoT data effectively.

Acceptance Criteria:

- Welcome message, key features (e.g., Advanced Data Analytics, Customizable Dashboards), and "Get Started" button displayed.
- Dropdowns for data type (e.g., temperature) and graph type (e.g., graph1) with visualization (e.g., histogram) on submission.
- "Analyze Sensor Correlation" section allows selecting up to three sensors, setting time range, and toggling Live Stream for real-time data.
- Responsive layout for desktop and mobile.
- "Switch to Dark Mode" button in header.

2. Logging into the Platform

As a registered user,

I want to log into the platform with my credentials,
so that I can access my personalized data and dashboard features.

Acceptance Criteria:

- Login page with email and password fields.
- Successful login redirects to Homepage or Dashboard.
- "Forgot Password?" and "No account? Register here" links provided.
- Responsive design with footer links (e.g., Contact Us, Privacy Policy).

3. Registering a New Account

As a new user,

I want to sign up for an account with my details,
so that I can access the platform's features and manage my IoT data.

Acceptance Criteria:

- Sign-Up page with fields for full name, email, password, and confirm password.
- Successful sign-up creates account and redirects to Login page.
- "Already have an account? Login" link provided.
- Responsive design with footer links.

4. Resetting My Password

As a registered user,

I want to reset my password if I forget it,

so that I can regain access to my account.

Acceptance Criteria:

- Forgot Password page with email input field.
- "Send Reset Link" sends reset link to email with confirmation.
- "Back to Login" link provided.
- Responsive design with footer links.

5. Analyzing Sensor Correlations

As a data analyst,

I want to analyze sensor correlations on a dedicated page,

so that I can identify patterns and relationships in my IoT data.

Acceptance Criteria:

- Analyze page with checkboxes for up to three sensors, time range inputs, and expected correlation value (e.g., 0.10).
- "Analyze" processes data; "Filter Data" adjusts results.
- Live Stream toggle updates real-time line chart.
- Includes "Switch to Dark Mode" button and footer with copyright.

6. Customizing My Dashboard

As a data analyst,

I want to customize my dashboard with widgets,

so that I can create a personalized workspace to monitor my IoT data effectively.

Acceptance Criteria:

- Dashboard page with "Add Widget," "Remove," "Resize," and "Save Layout" buttons.
- Supports drag-and-drop widget arrangement in a grid layout.
- Displays widgets (e.g., Line Chart, Data Table) responsively.
- Includes footer with links.