

Presentación del Proyecto DAW

Información del Repositorio

Repositorio GitHub: <https://github.com/juandiegombr/daw.pi.java>

URL aplicación: <https://d12lcsdgk45eqvv.cloudfront.net/>

Resumen del Proyecto

Aplicación Web Full-Stack desarrollada como parte del curso DAW (Desarrollo de Aplicaciones Web).

¿Qué es este proyecto?

Una aplicación web completa que demuestra prácticas profesionales de desarrollo, incluyendo:

- Arquitectura frontend-backend
 - API RESTfull
 - Containerización con Docker
 - Despliegue en la nube (AWS)
 - Pipeline CI/CD automatizado
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Capturas de Pantalla

Listado de Sensores

The screenshot shows the 'Industrial Monitor' application interface. At the top, there's a header with the title 'Industrial Monitor' and a subtitle 'Monitor de señales de sensores de máquinas industriales en tiempo real'. Below the header, a section titled 'Sensores Activos (10 sensores)' is displayed. This section contains a grid of ten sensor cards, each with a title, type of data, sensor ID, creation date, and a 'Ver Datos' button.

Sensor	Tipo de dato	Sensor ID	Creado	Opción
Motor 1 Temperature Sensor	float	6921753326f1e2f96bcd9ca1	22/11/2025, 9:32:51	Ver Datos
Hydraulic Pressure Sensor	int	6921753326f1e2f96bcd9ca2	22/11/2025, 9:32:51	Ver Datos
Main Valve Status	boolean	6921753326f1e2f96bcd9ca3	22/11/2025, 9:32:51	Ver Datos
Shaft A Vibration Sensor	float	6921753326f1e2f96bcd9ca4	22/11/2025, 9:32:51	Ver Datos
Cycle Counter	int	6921753326f1e2f96bcd9ca5	22/11/2025, 9:32:51	Ver Datos
Oil Level Sensor	float	6921753326f1e2f96bcd9ca6	22/11/2025, 9:32:51	Ver Datos
Safety Status	boolean	6921753326f1e2f96bcd9ca7	22/11/2025, 9:32:51	Ver Datos
Current Error Code	string	6921753326f1e2f96bcd9ca8	22/11/2025, 9:32:51	Ver Datos
Motor 2 RPM Sensor	int	6921753326f1e2f96bcd9ca9	22/11/2025, 9:32:51	Ver Datos

Listado de Sensores

Detalle de Sensor

The screenshot shows a detailed view of the 'Motor 1 Temperature Sensor' from the previous list. The page has a header 'Industrial Monitor' and a subtitle 'Monitor de señales de sensores de máquinas industriales en tiempo real'. Below the header, there's a backlink 'Volver a Sensores' and a section titled 'Motor 1 Temperature Sensor' with details like 'Tipo: float' and 'ID: 6921753326f1e2f96bcd9ca1'. The main content area is titled 'Datos del Sensor' and shows a graph of temperature data over time. The graph has a y-axis ranging from 0 to 100 and an x-axis showing dates from 2025-11-21 to 2025-11-22. The data shows a fluctuating pattern around a mean value of approximately 75.

Detalle de Sensor

Crear Sensor

The screenshot shows the Industrial Monitor web interface. In the center, a modal dialog titled "Nuevo Sensor" is open. It contains fields for "Nombre del Sensor" (Sensor Name) with the value "Ej: Sensor de Temperatura" and "Tipo de Dato" (Data Type) set to "Integer (Entero)". Below these are "Cancelar" and "Crear Sensor" buttons. The background shows a grid of sensor cards: "Motor 1 Temperature Sensor", "Shaft A Vibration Sensor", "Safety Status", "Current Error Code", "Main Valve Status", "Oil Level Sensor", and "Motor 2 RPM Sensor". Each card displays its type (e.g., float, boolean, string, int), ID, and creation date.

Crear Sensor

Editar Sensor

The screenshot shows the Industrial Monitor web interface. A modal dialog titled "Editar Sensor" is open, showing the edited details for the "Hydraulic Pressure Sensor". The "Nombre del Sensor" field now contains "Hydraulic Pressure Sensor". The "Tipo de Dato" field remains set to "Integer (Entero)". Below these are "Cancelar" and "Guardar" buttons. The background shows the same grid of sensor cards as the previous screenshot, with the "Motor 1 Temperature Sensor" card also visible.

Editar Sensor

Stack Tecnológico

Backend

- **Node.js + Express.js** - API REST
- **MongoDB + Mongoose** - Base de datos NoSQL
- **CORS** - Gestión de peticiones cross-origin

Frontend

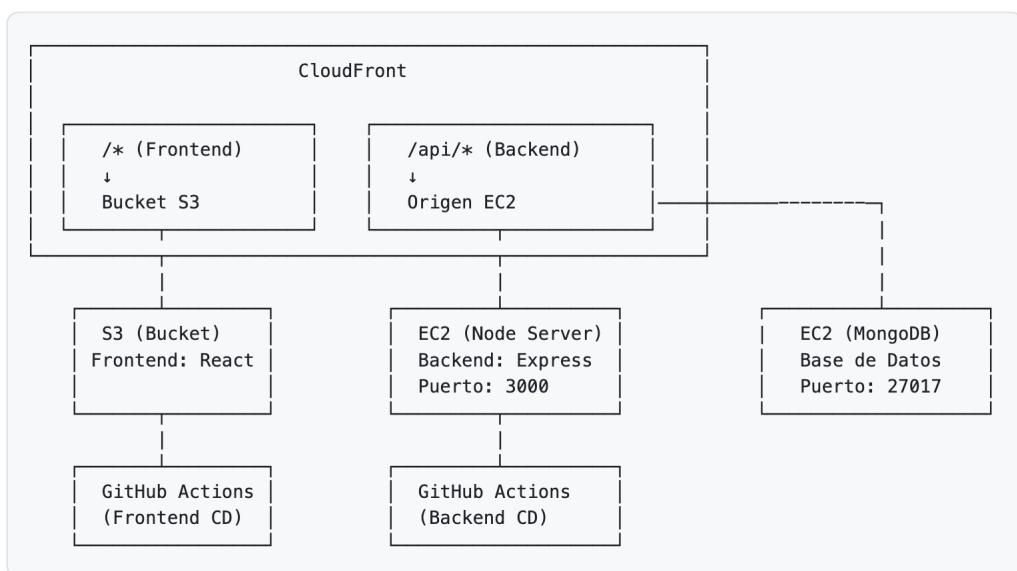
- **React** - Biblioteca de interfaz de usuario
- **Vite** - Herramienta de desarrollo rápido con HMR

DevOps

- **Docker + Docker Compose** - Containerización
- **GitHub Actions** - CI/CD automatizado
- **AWS** - Infraestructura en la nube
 - S3 para frontend estático
 - EC2 para API backend
 - CloudFront como CDN

Arquitectura

La aplicación está desplegada en AWS utilizando la siguiente arquitectura:



Arquitectura AWS