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# Product Service Microservice

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## Overview

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The Product Service is a cloud-native microservice built as part of an event-driven e-commerce platform. This microservice follows the twelve-factor app methodology and is designed to manage product-related operations within the e-commerce ecosystem.

## Key Features

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- RESTful API for product management (CRUD operations)
- Event-driven architecture using Kafka for real-time event publishing
- PostgreSQL database for product data persistence
- Circuit breaker patterns for resilience
- Containerized deployment with Docker and Docker Compose
- Environment-specific configuration profiles

## Technology Stack

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- **Java 17** - Core programming language
- **Spring Boot** - Application framework
- **Spring Data JPA** - Data access layer
- **PostgreSQL** - Relational database
- **Apache Kafka** - Event streaming platform
- **Docker & Docker Compose** - Containerization and orchestration

- **Maven** - Build and dependency management

# Documentation Index

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- [Architecture Overview](#) - Detailed architecture diagrams and design patterns
- [Configuration Guide](#) - Application configuration details
- [Development Environment](#) - Setting up your development environment
- [Deployment Guide](#) - Deployment instructions and considerations
- [API Documentation](#) - API endpoints and usage
- [Event Schema](#) - Kafka event schemas and examples

# Getting Started

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See the [Development Environment](#) guide for instructions on setting up your development environment and the [Deployment Guide](#) for deployment options.

# License

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This project is proprietary and confidential.