WSO2CON 2024

From Blueprint to Brilliance

WSO2's Guide to API-First Engineering Excellence



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What is API-First Engineering?

Definition

Strategic approach that centers on the API,

treating APIs as **first-class products** which are

designed, implemented, distributed, and maintained

by developers for developers

such a way so that API customers (developers) can build software applications, services and wider IT systems by “calling” those APIs

- Bernadette Nixon, Forbes Council, CEO @ Algolia -

- Tanya Vlahovic, ex-eBay, Head of Engineering @ Intuit -

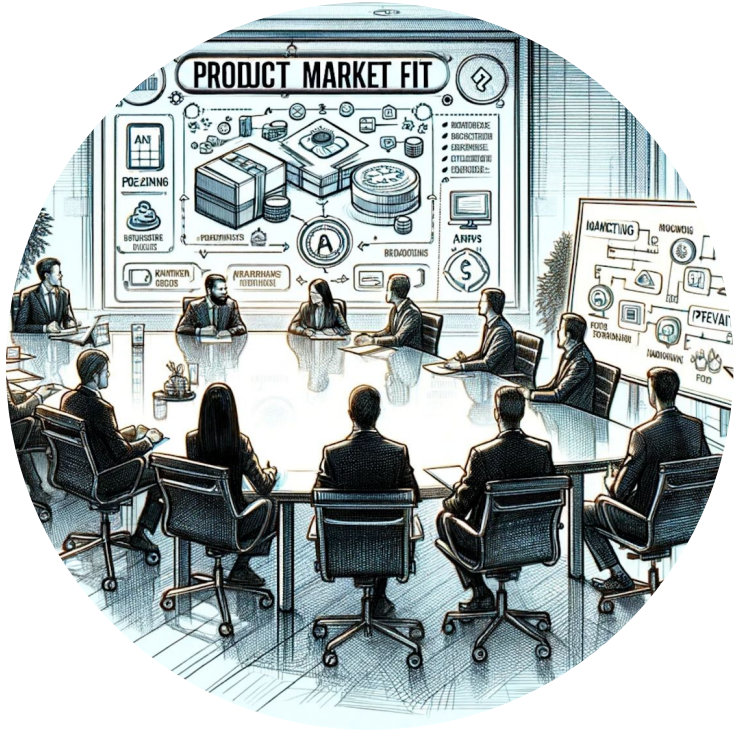
How !(to do) API-First Engineering?


API Specicfation

How to do API-First Engineering?

Design API as a Product

- Improve product market fit
- Treat as primary user interface
- Maintainability
- Debuggability



Adhere to Foundational Design

- Implementation independent
- Holistic API-centric architecture
  - Domain Driven Design
  - Cell based architecture
- Reusability



Maintain Consistency

- Standards and patterns
  - Industry standards
  - Domain standards
- Same taxonomy and vocabulary



Compose Descriptive and Reliable Documentation

- Descriptive API specification
- Standards and patterns
- Purpose driven docs
  - Guides
  - Demos & examples
  - Solutions



Improve Discoverability

- Marketplace
  - Searchability
  - Metadata and tags
- Ease of use



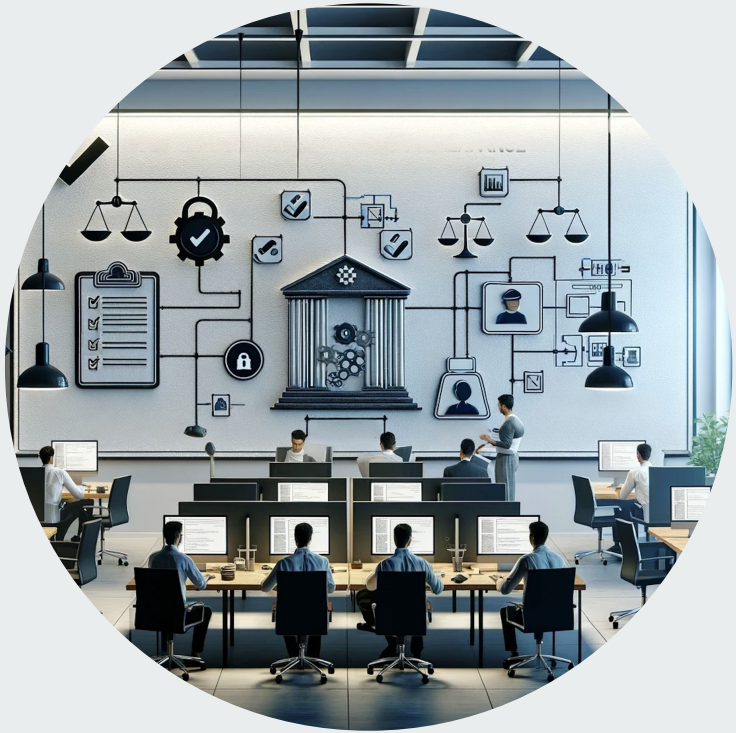
Why API-First Engineering?



Improved Developer Experience and Productivity



Enhanced API Security



Better Compliance and Governance

What Choreo Brings to the Table?

Organization
WSO2



Explore Choreo in our Demo Organization

Join the Demo Organization and explore Choreo's features and capabilities with a predefined project and components.

Join Now

All Projects

Create Project

Customer Success Web
27 minutes ago

HRIS
19 hours ago

Update2
20 hours ago

Sales
21 hours ago

Sales Web
21 hours ago

HRIS Web
21 hours ago

Marketing Web
22 hours ago

Finance Web
22 hours ago

Finance
22 hours ago

Updates Delivery
23 hours ago

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Items per page 10

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Marketplace

Services | Databases | Mediation Policies

Search Services

Name

Type

- [ ] Internal
- [ ] Third Party

Network Visibility

- [x] Project
- [x] Organization
- [x] Public

Categories

V

Visitor Registration Backend - Endpoint 9090
HRIS Web
REST
Version: v1
Backend service for visitor registration app
Public · 13 hours ago

F

Finance Entity Service - Endpoint 8090
Finance
REST
Version: v1
View and manage finance domain related business objects such as engagements, allocations, travels, claims, credit car...
Public · 1 day ago

P

PAR App Test - Endpoint 9090
Update2
REST
Version: v1
PAR App Test
Public · 7 days ago

W

WSO2Con Registrant App Backend - Endpoint 9...
Marketing Web
REST

C

Customer Specific Test Proxy-CST REST Endpoi...
Customer Success
REST

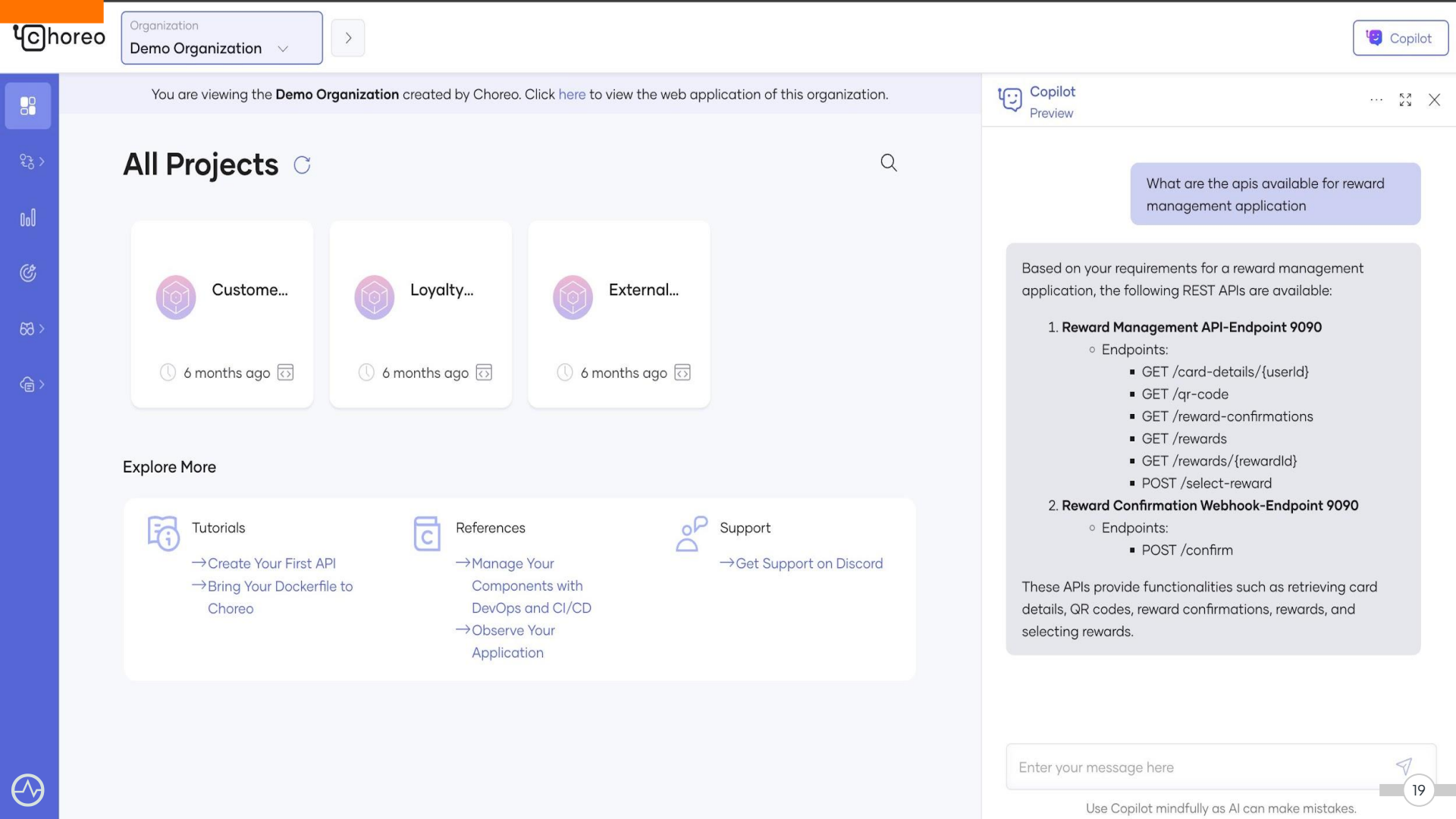
S

SMS Service-Endpoint 9090
Infrastructure
REST

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Organization
Demo Organization
Copilot
You are viewing the Demo Organization created by Choreo. Click here to view the web application of this organization.
All Projects
Custome...
6 months ago
Loyalty...
6 months ago
External...
6 months ago
Explore More
Tutorials
→Create Your First API
→Bring Your Dockerfile to Choreo
References
→Manage Your Components with DevOps and CI/CD
→Observe Your Application
Support
→Get Support on Discord
Copilot
Preview
What are the apis available for reward management application
Based on your requirements for a reward management application, the following REST APIs are available:
1. Reward Management API-Endpoint 9090
- Endpoints:
  - GET /card-details/{userId}
  - GET /qr-code
  - GET /reward-confirmations
  - GET /rewards
  - GET /rewards/{rewardId}
  - POST /select-reward
2. Reward Confirmation Webhook-Endpoint 9090
- Endpoints:
  - POST /confirm
These APIs provide functionalities such as retrieving card details, QR codes, reward confirmations, rewards, and selecting rewards.
Enter your message here
Use Copilot mindfully as AI can make mistakes.

R Reading List Service-Books REST Endpoint

Overview | API Definition | How to Use | Related Documents

Download

GET /books List all books

POST /books Insert a new book

GET /books/{uuid} Get book by UUID

DELETE /books/{uuid} Delete book by UUID

PUT /books/{uuid} Update book status by UUID

GET /healthz Healthcheck

Schemas

Key >

Status >

KeyValue >

StringArray >

Terms of Use Privacy Policy Support

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← Back to Connections

new connection

Connecting to reading list 42-Books REST Endpoint

Connection Schema Default OAuth Connection - Public

Service URL /choreo-apis/testing42/reading-list-42/books-rest-end

Development ⚠ Production

Config key	Config Value
ServiceURL	/choreo-apis/testing42/reading-list-42/books-rest-endpoint-d70/v1.0

Create Programmatic Connections

Introduction

> Create programmatic connections to other services from your component (See more)

Managed Authentication | Custom Authentication | No Authentication

Choreo managed authentication allows you to seamlessly handle your web application authentication. You can configure your web application to work with the Choreo built-in identity provider or any external identity provider which supports OIDC/OAuth2.0.

Add Connection Configuration

> Add connection configurations to the application (See more)

```
window.configs = {
    apiUrl: '/choreo-apis/testing42/reading-list-42/books-rest-endpoint-d70/v1.0',
};
```

Read Configurations

The exact steps of that will depend on the language you are using. For your ease we have included a sample snippet.

```
const apiUrl = window?.configs?.apiUrl ? window.configs.apiUrl : "/";
```

In your index.html file inside the public directory, add a script tag as follows

Any fool can write code that a computer can understand. Good programmers write code that humans can understand

– Martin Fowler –



Question Time!



Thank You!