AI Tools for Jakarta EE

Empowering Developers with Next-Gen AI Capabilities

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Apache Committer, NetBeans Dream Team Member,
Jeddict Creator https://jeddict.github.io/

SFSCON 2024

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Agenda

Creating SFSCON Conference App Using AI Tools

Disclaimer

*The application generated in this demonstration utilizes **AI-powered tools** and serves as a foundational prototype. AI-generated code may contain compilation errors, inconsistencies, and is inherently variable with each generation attempt. This code is not production-ready and should be treated as a preliminary draft. Comprehensive review, refinement, and testing by experienced developers are essential to ensure functionality, performance, security, and adherence to production standards.*

Traditional Development

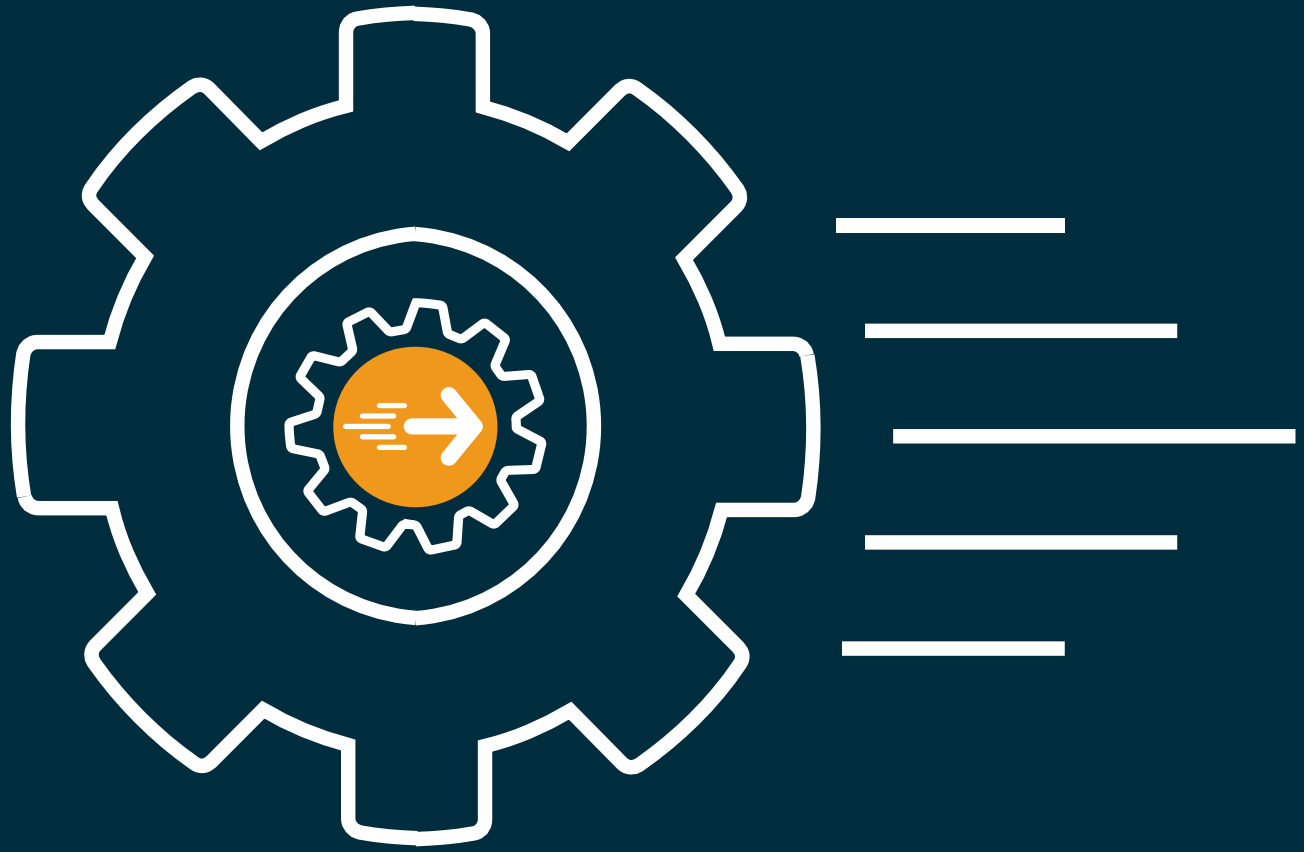
Project Generators

Visual Designers

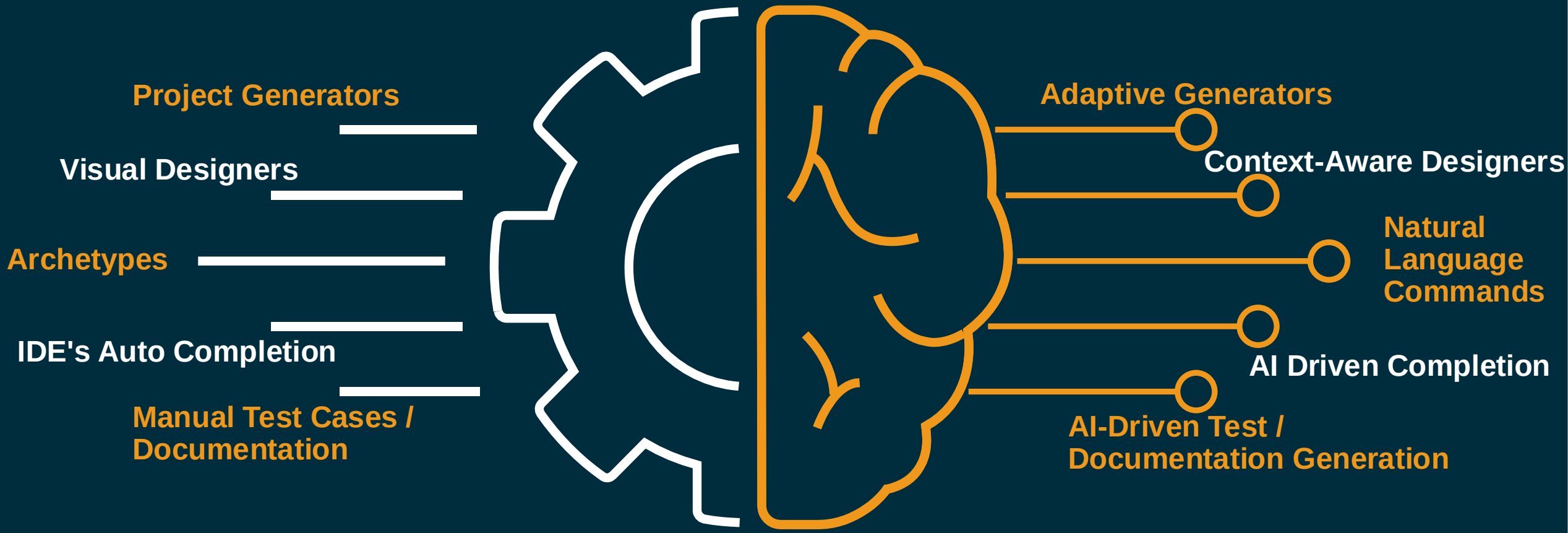
Archetypes

IDE's Auto Completion

Manual Test Cases / Documentation



AI-Powered Development

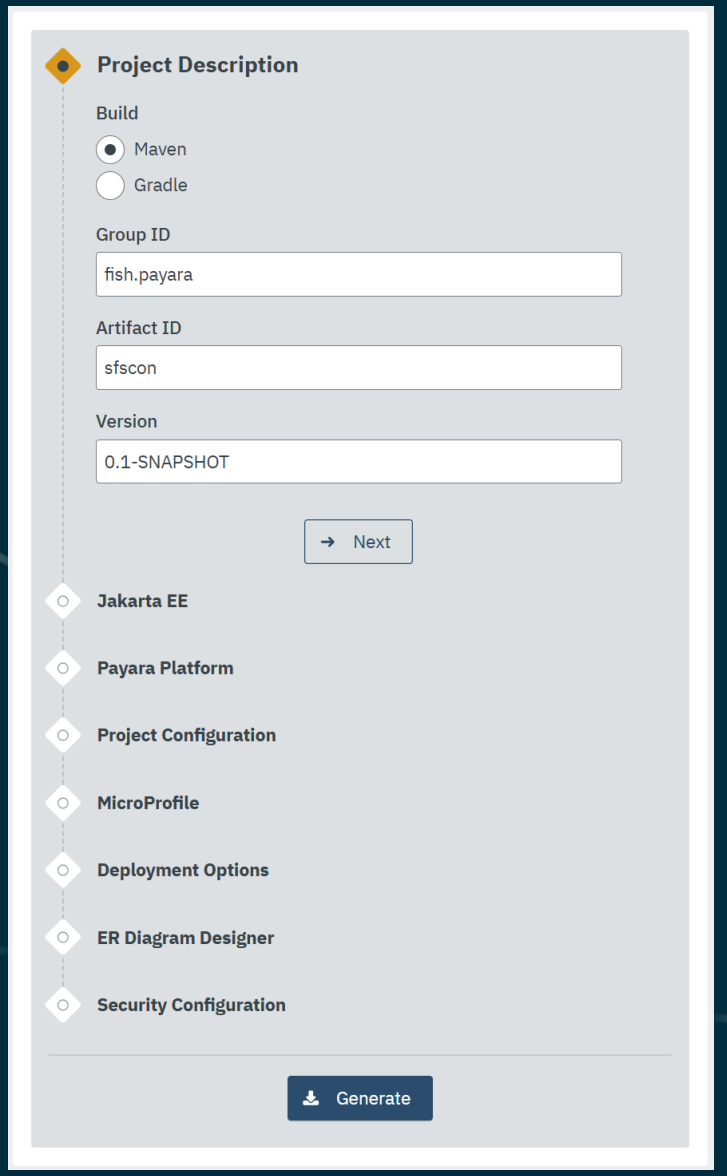


Power Up Your Jakarta EE

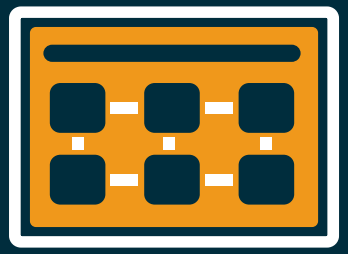
Introducing Payara Starter

https://start.payara.fish/

Jakarta EE



MicroProfile



ER Diagram Designer

Secured

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ER Diagram Designer

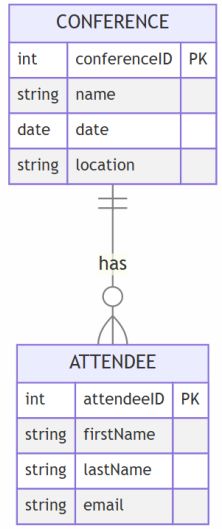
Zero Domain Knowledge

Source SFSCON

```
erDiagram
    CONFERENCE ||--o{ ATTENDEE : has
    CONFERENCE {
        int conferenceID PK
        string name
        date date
        string location
    }
    ATTENDEE {
        int attendeeID PK
        string firstName
        string lastName
        string email
    }
```

Create new Diagram

Live Preview



Tell us how you want to change the diagram (e.g., 'Add customer address') and press Enter

← → + - ⛶

ER Diagram Designer
Natural Language Command

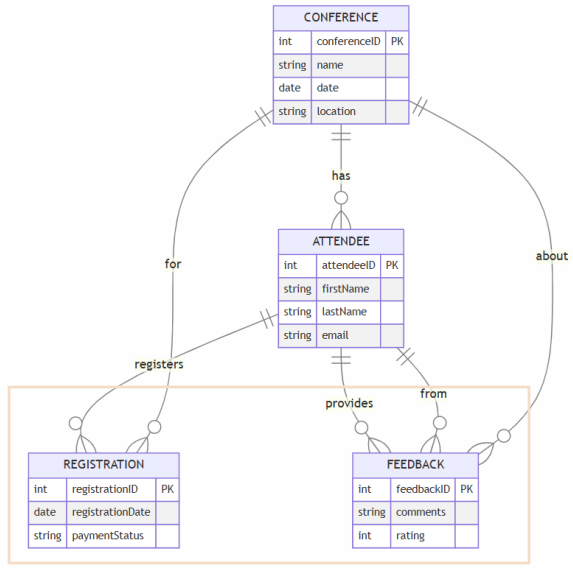
Source SFSCON

```
erDiagram
    CONFERENCE ||--o{ ATTENDEE : has
    CONFERENCE {
        int conferenceID PK
        string name
        date date
        string location
    }
    ATTENDEE {
        int attendeeID PK
        string firstName
        string lastName
        string email
    }
    ATTENDEE ||--o{ REGISTRATION : registers
    REGISTRATION {
        int registrationID PK
        date registrationDate
        string paymentStatus
    }
    REGISTRATION }o--|| CONFERENCE : for
    ATTENDEE ||--o{ FEEDBACK : provides
    FEEDBACK {
        int feedbackID PK
```

Natural Language Command

Tell us how you want to change the diagram (e.g., 'Add customer address') and press Enter

Live Preview



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ER Diagram Designer
Context Awareness

Source SFSCON

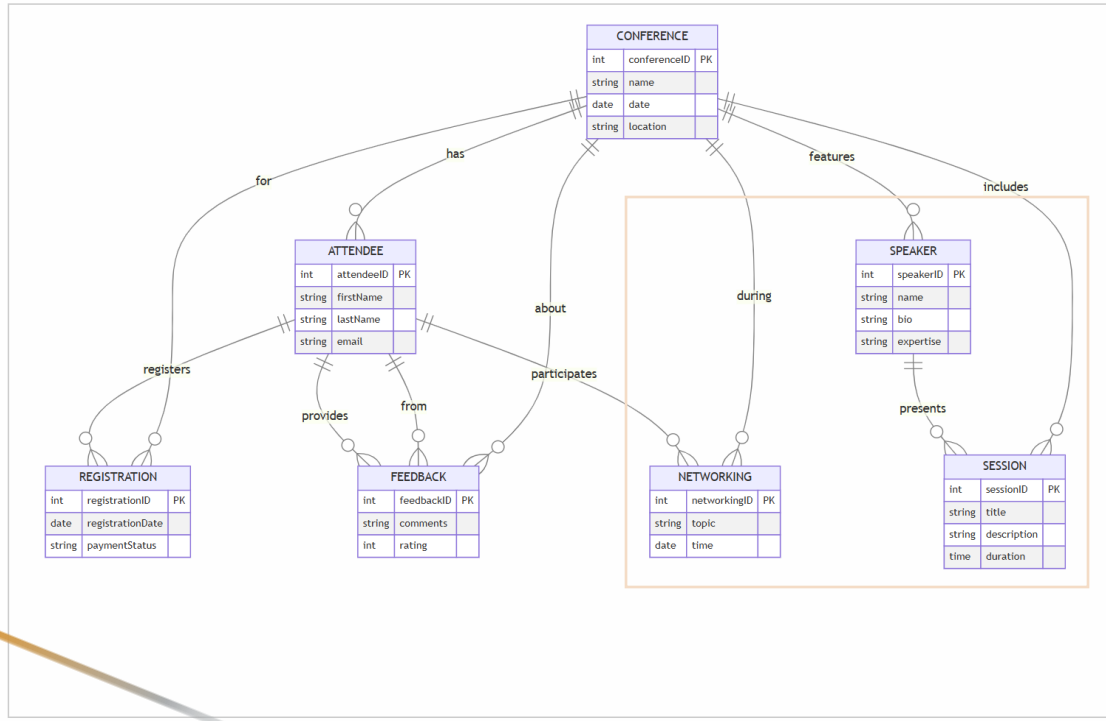
```
erDiagram
    CONFERENCE ||--o{ ATTENDEE : has
    CONFERENCE {
        int conferenceID PK
        string name
        date date
        string location
    }
    ATTENDEE {
        int attendeeID PK
        string firstName
        string lastName
        string email
    }
    ATTENDEE ||--o{ REGISTRATION : registers
    REGISTRATION {
        int registrationID PK
        date registrationDate
        string paymentStatus
    }
    REGISTRATION }o--|| CONFERENCE : for
    ATTENDEE ||--o{ FEEDBACK : provides
    FEEDBACK {
        int feedbackID PK
```

Mermaid Diagram

Enlarge Diagram

Tell us how you want to change the diagram (e.g., 'Add customer address') and press Enter

Live Preview



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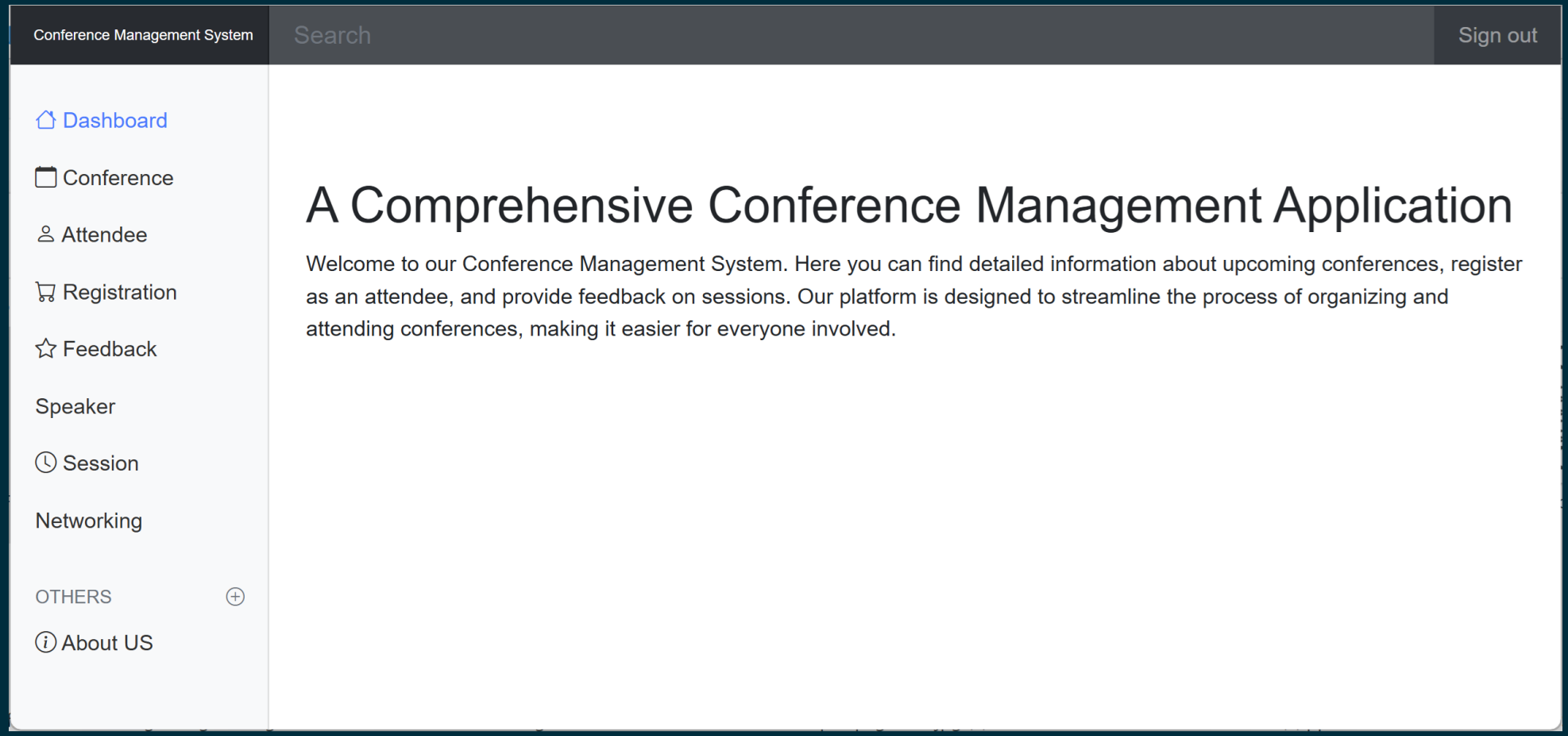
Adaptive Generator
for Jakarta EE



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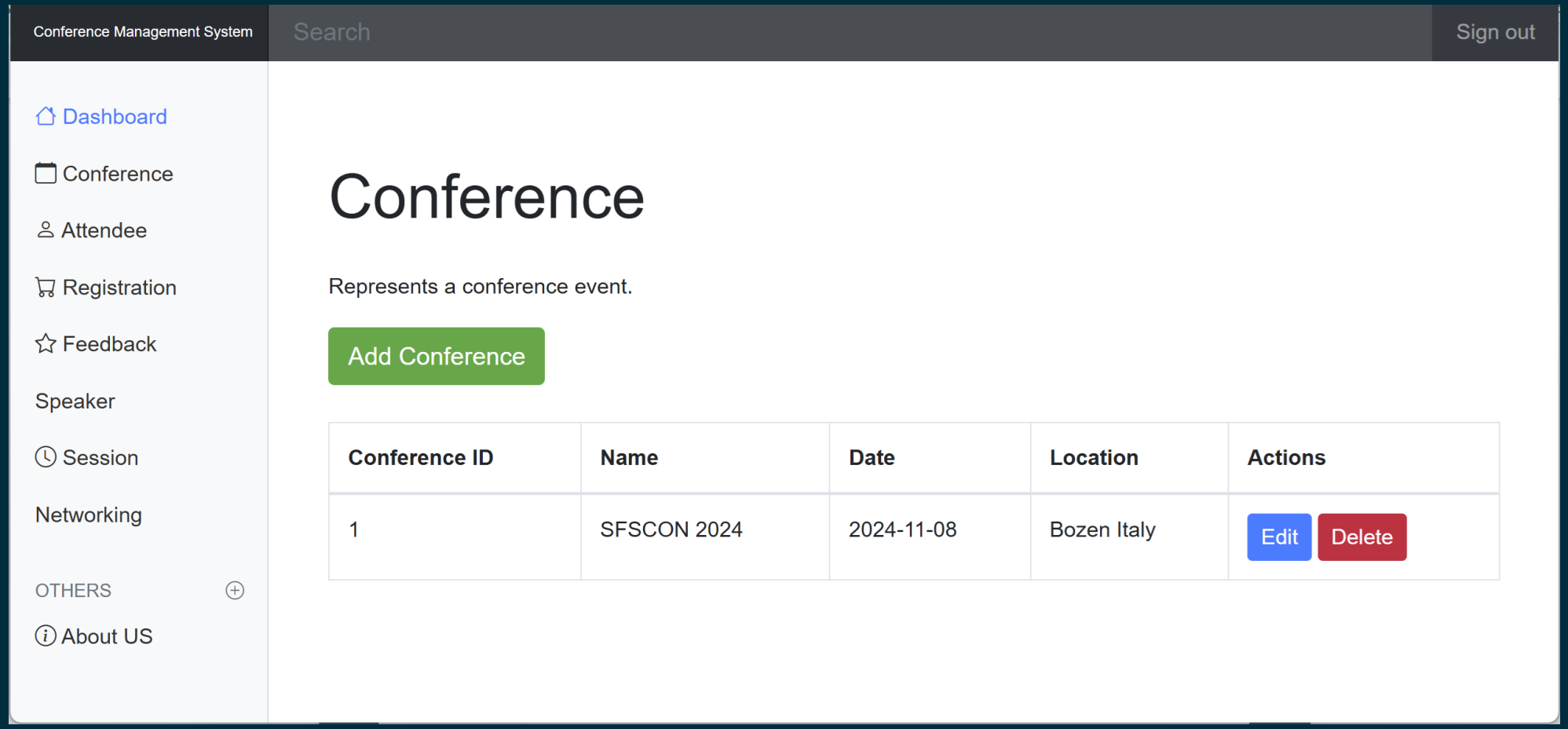
Generated Application
with Payara Starter



Jeddict AI Assistant
for Apache NetBeans IDE

- Completely Free AI Assistant
- Project / Package context-aware Chat
- AI-Driven inline Code Completion
- SQL inline completion
- Context-aware database interactions
- Create REST Endpoints
- Support for multiple LLM Provider

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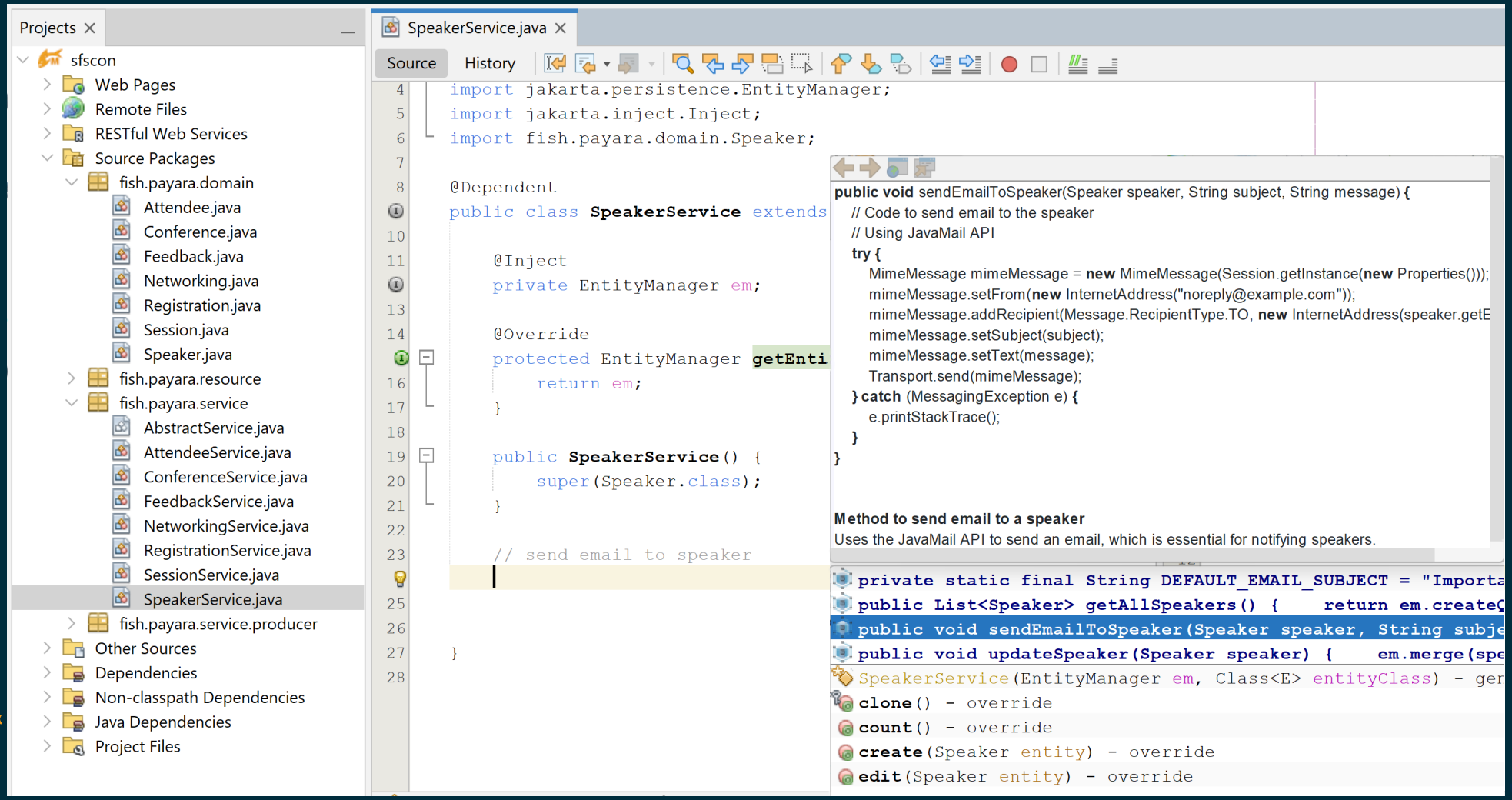
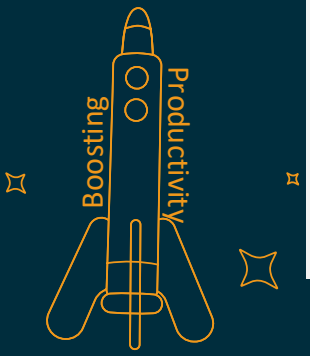
Jeddict AI Assistant

Intelligent Code Completion





Jeddict AI Assistant

Context Aware Variable / Method Naming

FOOBAR

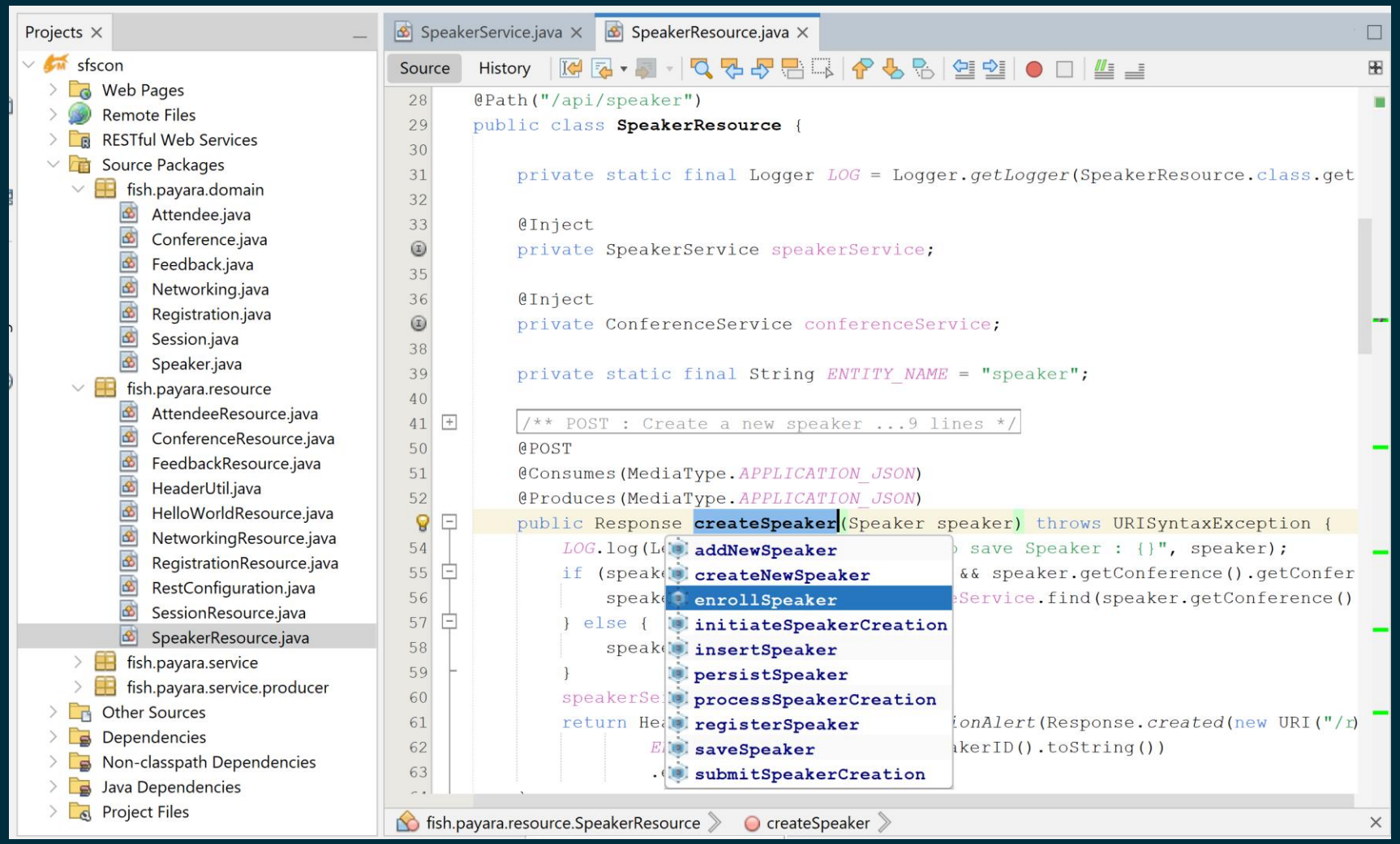
data(x2

data(X

foobar''

foo 22'

temp123'



data | 22

data | x?

foobar x2

temp|22

temp122

temp123

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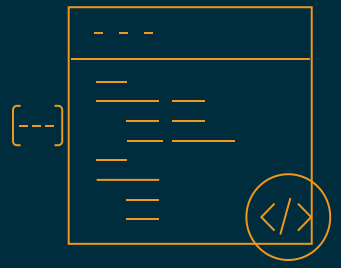
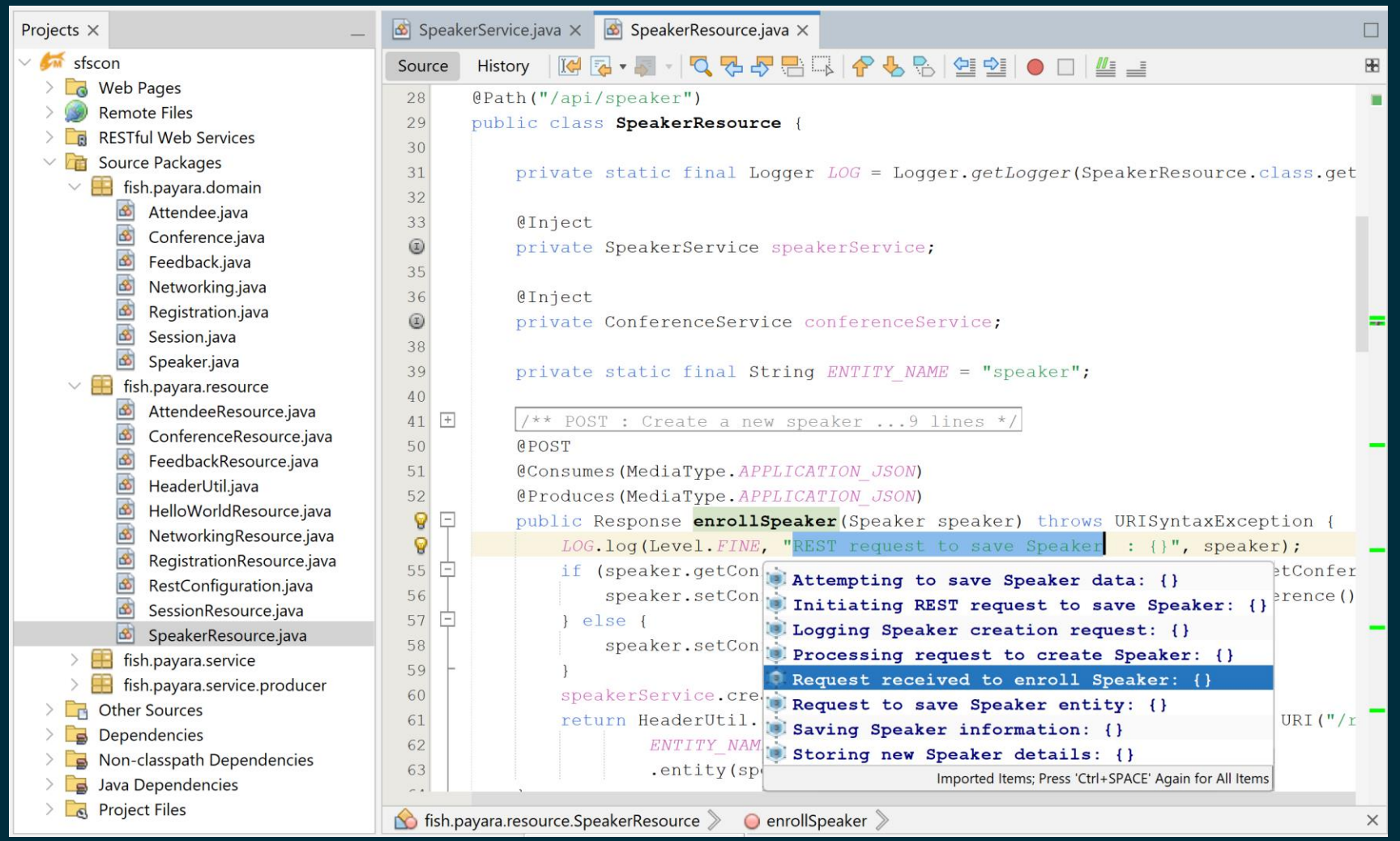
Jeddict AI Assistant

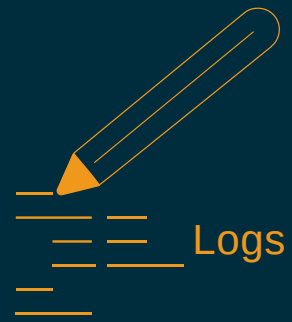
Log Message / JavaDocs

Java Docs



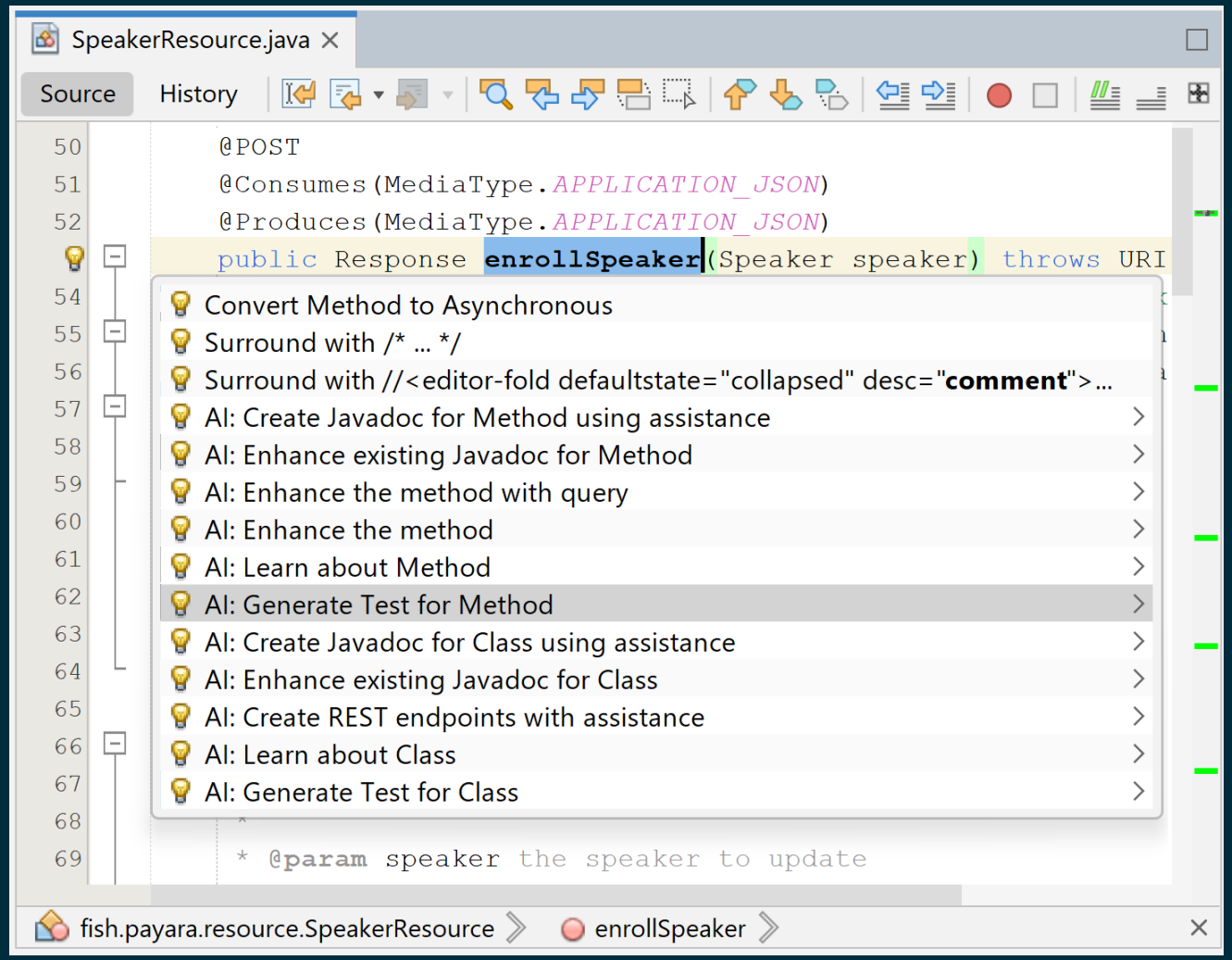


Logs



Jeddict AI Assistant

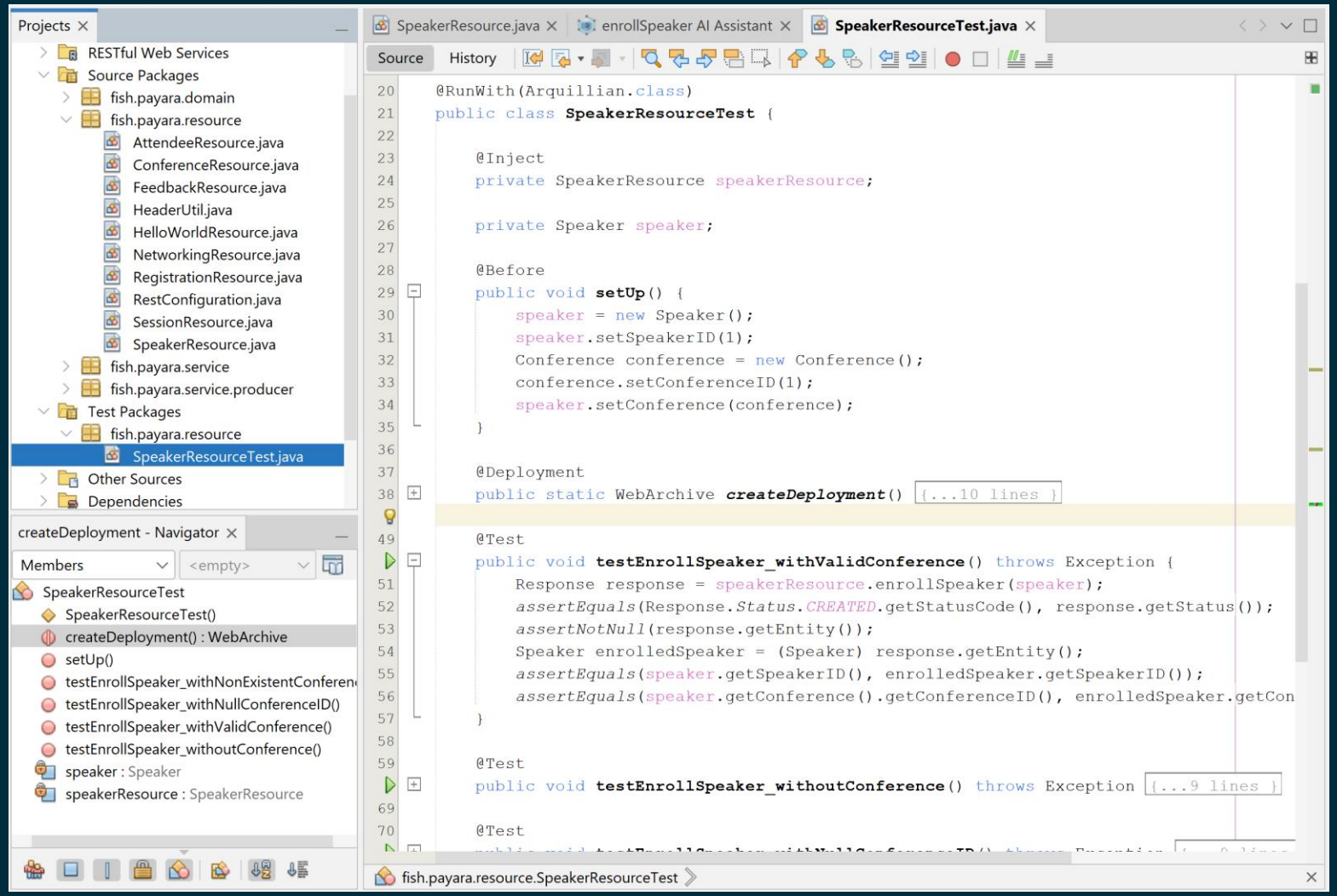
Test case generation



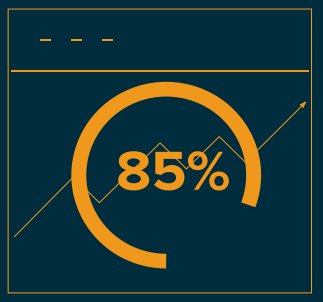
AutoTest

Jeddict AI Assistant

Test case generation



Code Coverage



Thank You

https://start.payara.fish

https://jeddict.github.io

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