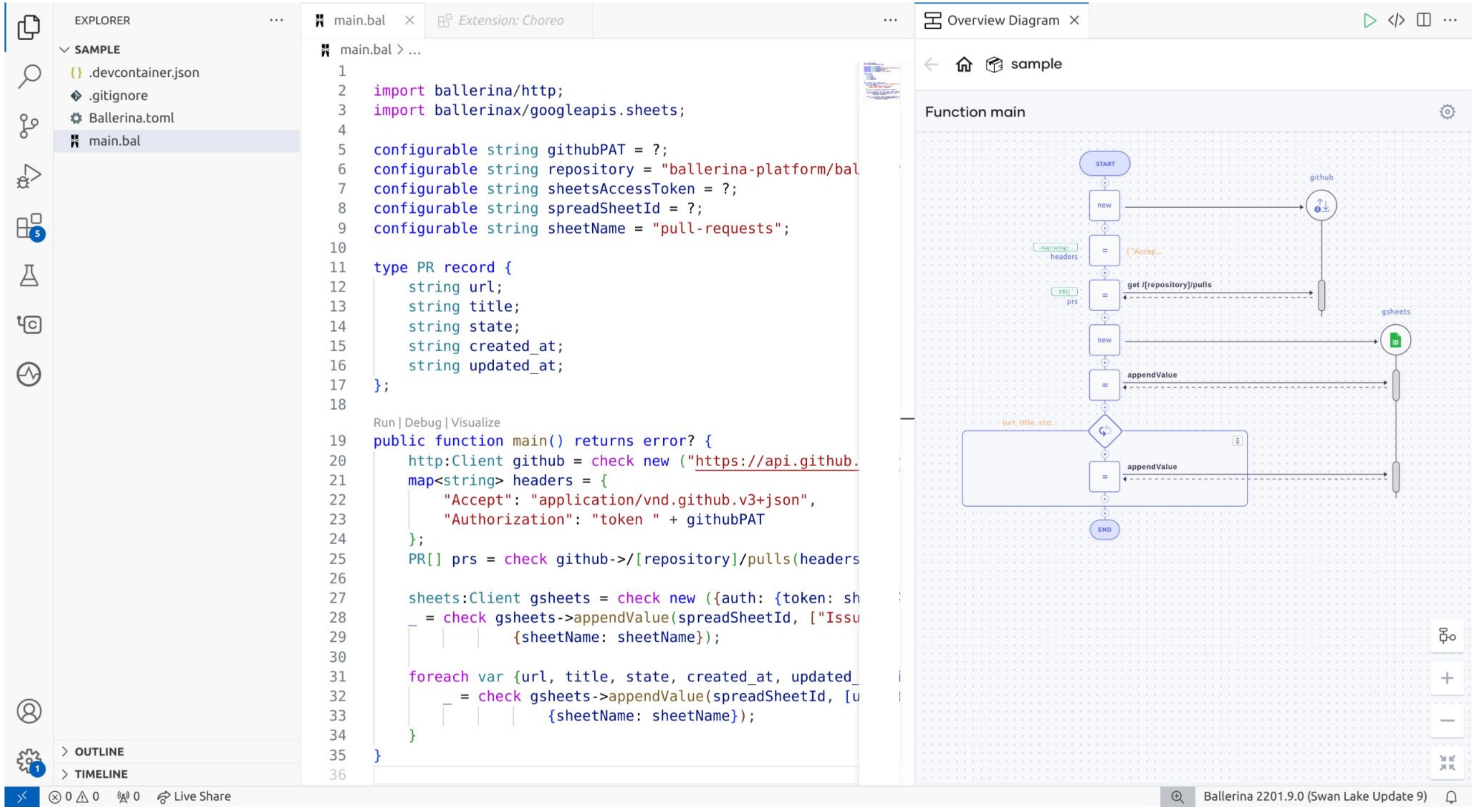
WSO2CON2024

Low-Code Integration Tooling

Joseph Fonseka
Senior Director - Head of Developer Tooling
WSO2

Background

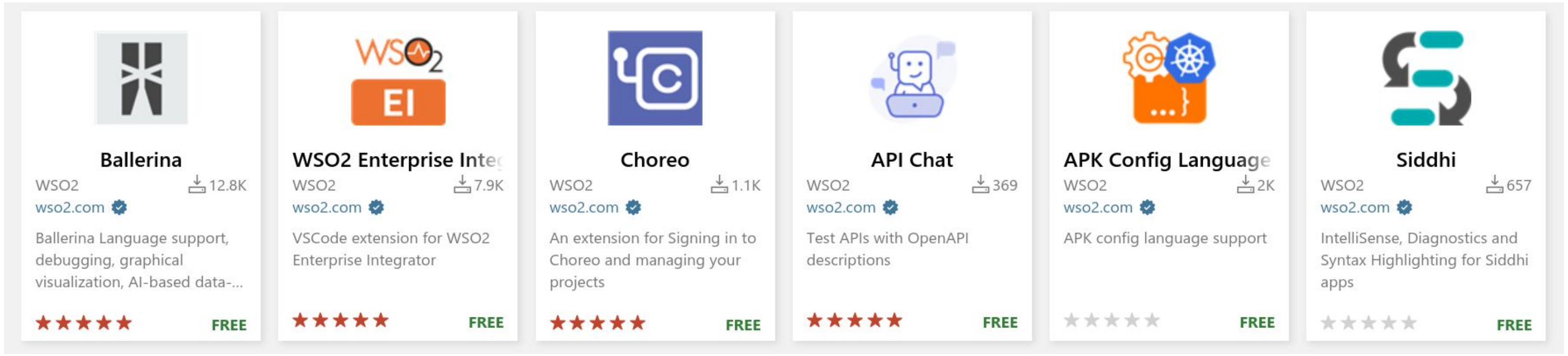
Ballerina for VS Code



```

import ballerina/http;
import ballerinax/googleapis.sheets;

configurable string githubPAT = ?;
configurable string repository = "ballerina-platform/bal
configurable string sheetsAccessToken = ?;
configurable string spreadSheetId = ?;
configurable string sheetName = "pull-requests";

type PR record {
    string url;
    string title;
    string state;
    string created_at;
    string updated_at;
};

Run | Debug | Visualize
public function main() returns error? {
    http:Client github = check new ("https://api.github.
    map<string> headers = {
        "Accept": "application/vnd.github.v3+json",
        "Authorization": "token " + githubPAT
    };
    PR[] prs = check github->/[repository]/pulls(headers

    sheets:Client gsheets = check new ({auth: {token: sh
    _ = check gsheets->appendValue(spreadSheetId, ["Issu
            {sheetName: sheetName});

    foreach var {url, title, state, created_at, updated_
        _ = check gsheets->appendValue(spreadSheetId, [u
                {sheetName: sheetName});
    }
}

```

Developer tooling

Currently, we maintain a bunch of VS Code extensions and various CLI tools for WSO2 products.



Ballerina
WSO2 12.8K
wso2.com
Ballerina Language support, debugging, graphical visualization, AI-based data-...
★★★★★ FREE

WSO2 Enterprise Inte
WSO2 7.9K
wso2.com
VSCode extension for WSO2 Enterprise Integrator
★★★★★ FREE

Choreo
WSO2 1.1K
wso2.com
An extension for Signing in to Choreo and managing your projects
★★★★★ FREE

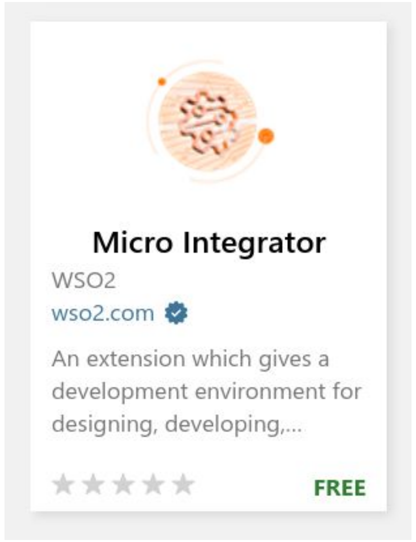
API Chat
WSO2 369
wso2.com
Test APIs with OpenAPI descriptions
★★★★★ FREE

APK Config Language
WSO2 2K
wso2.com
APK config language support
☆☆☆☆☆ FREE

Siddhi
WSO2 657
wso2.com
IntelliSense, Diagnostics and Syntax Highlighting for Siddhi apps
☆☆☆☆☆ FREE

Introducing Micro Integrator for VS Code

Designed to give a better low-code development experience for WSO2 Micro Integrator



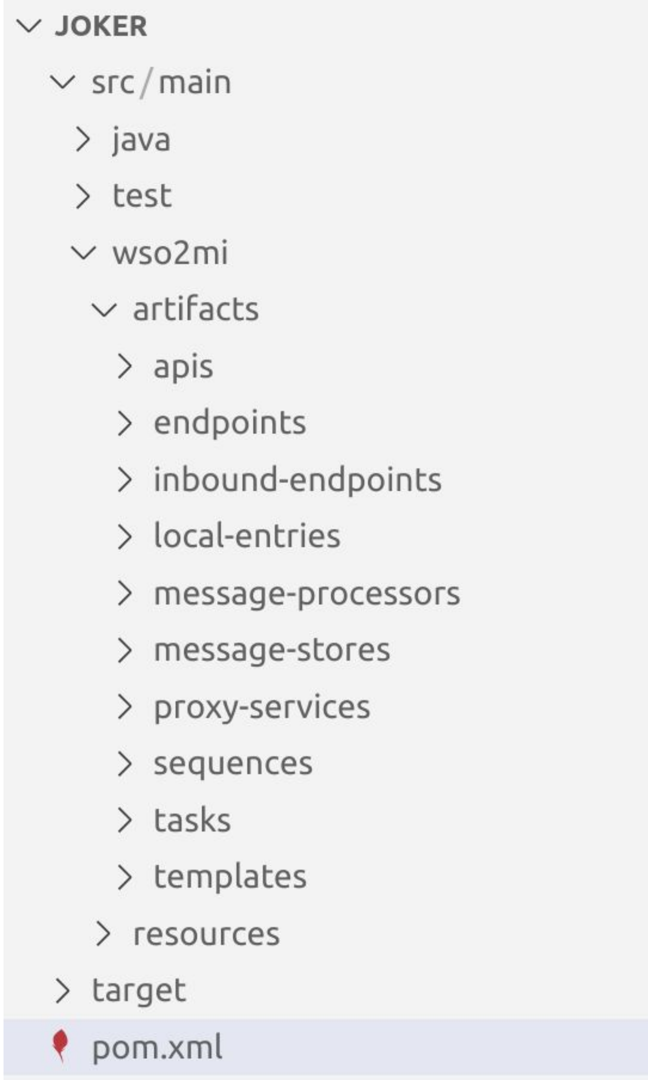
Micro Integrator
WSO2
wso2.com
An extension which gives a development environment for designing, developing,...
FREE

Demo

Key Improvements

Simple Project Structure

- Simplified directory structure
- Self contained project
- Creates a single deployable artifact
- Can contain class mediators

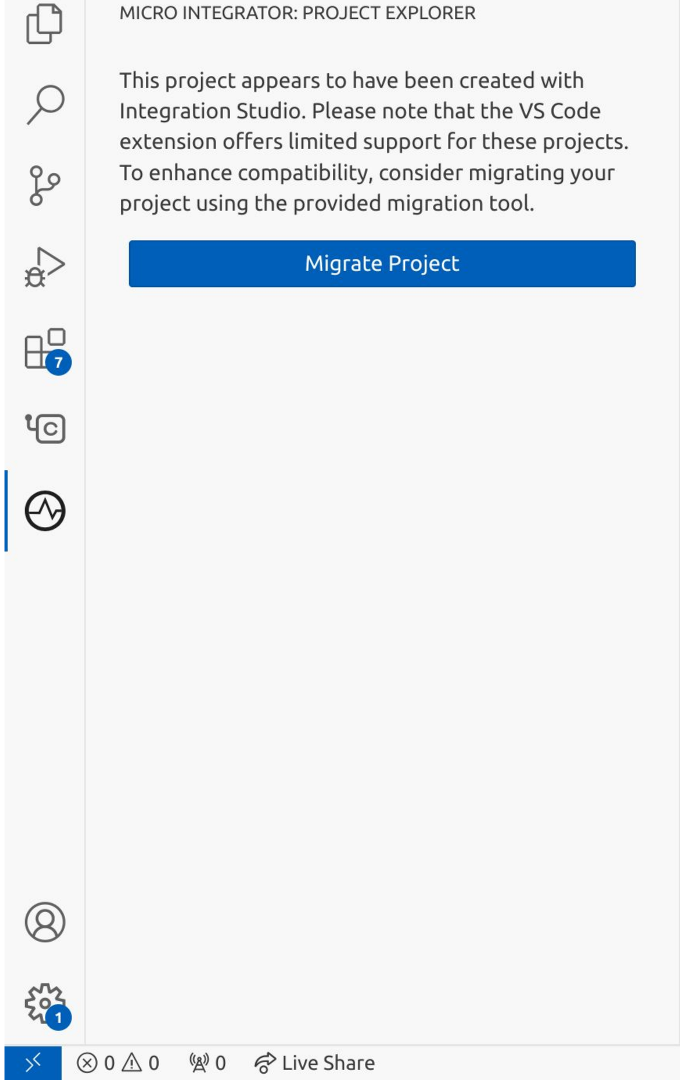


```
JOKER
  src / main
    java
    test
    wso2mi
      artifacts
        apis
        endpoints
        inbound-endpoints
        local-entries
        message-processors
        message-stores
        proxy-services
        sequences
        tasks
        templates
      resources
  target
  pom.xml
```

Using with existing projects

1. Migrate the old project to new project structure.
   a. Preserves git history

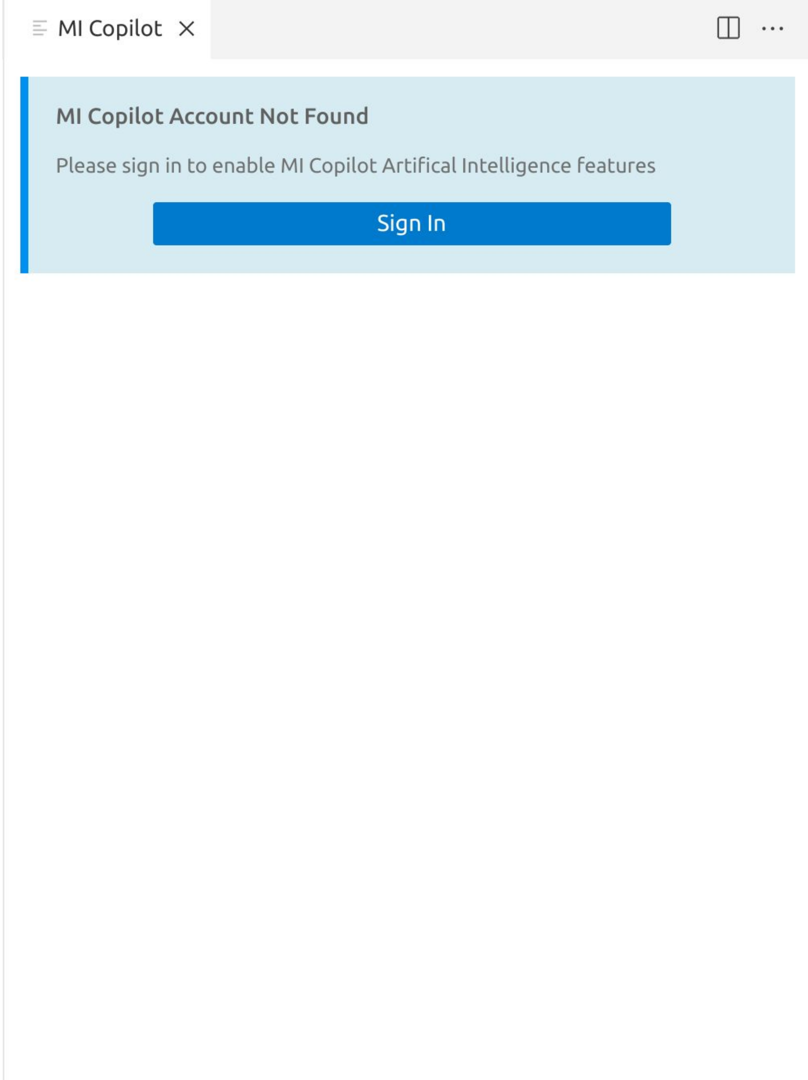
2. Continue to use it to edit artifacts with limited support
   a. No project related features


MICRO INTEGRATOR: PROJECT EXPLORER

This project appears to have been created with Integration Studio. Please note that the VS Code extension offers limited support for these projects. To enhance compatibility, consider migrating your project using the provided migration tool.

AI Assistant

- You can try it out with free credits after sign in with the service
- The GA release will enable the addition of your own OpenAI key.

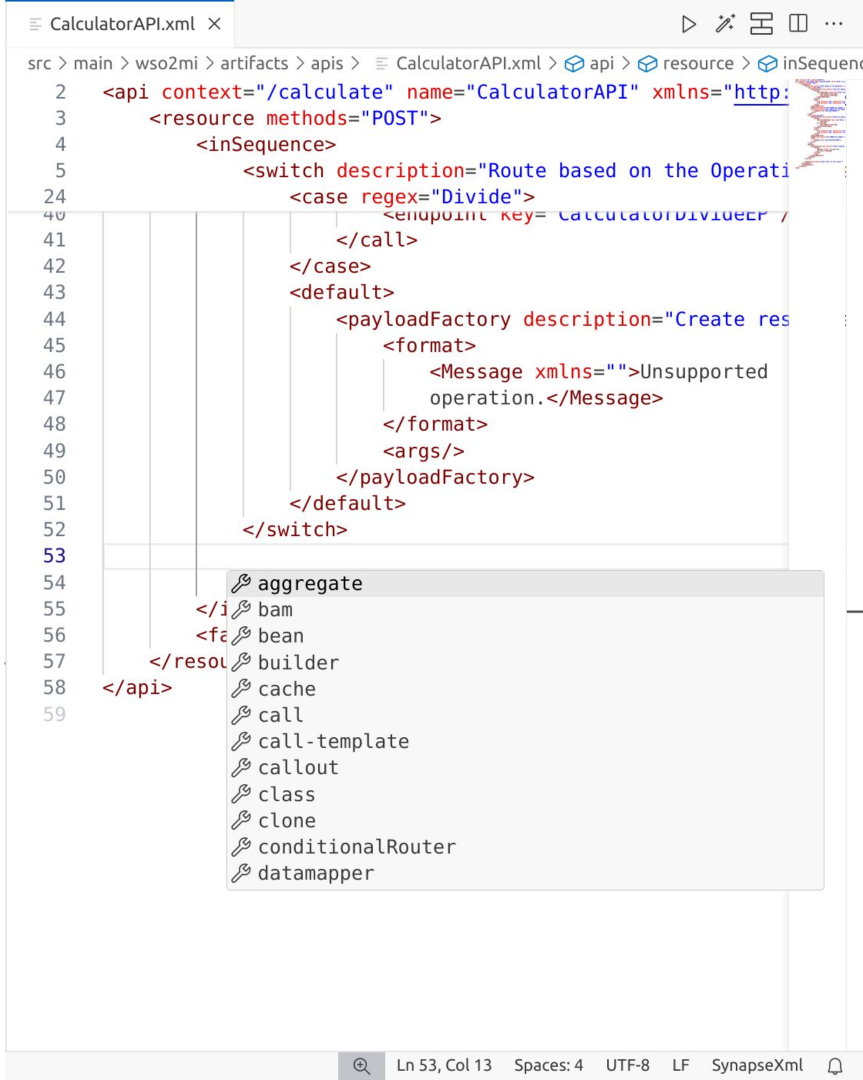


MI Copilot Account Not Found

Please sign in to enable MI Copilot Artifical Intelligence features

Synapse language Server

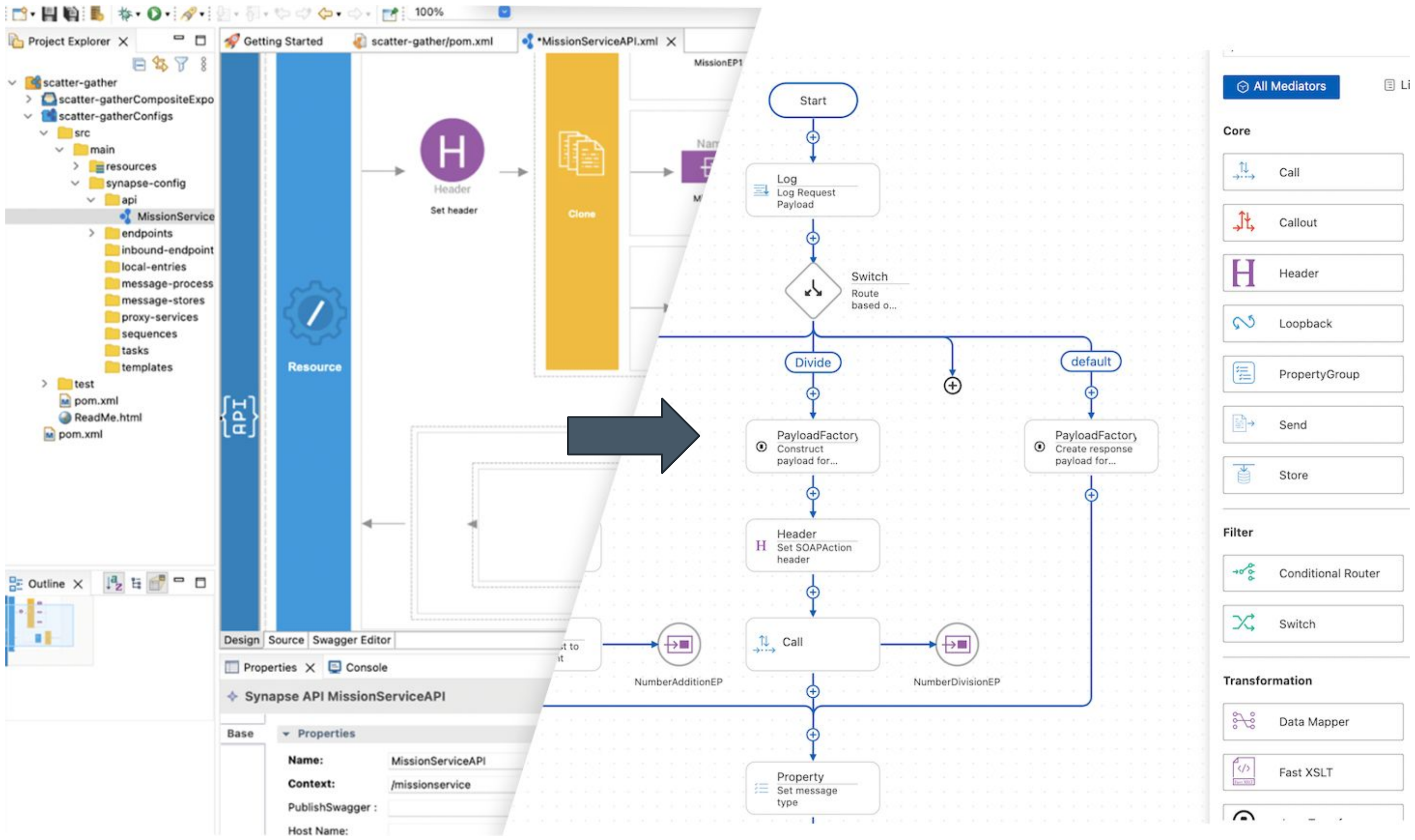
- Completions
- Diagnostics
- Go To definition
- Refactoring


CalculatorAPI.xml
src > main > wso2mi > artifacts > apis > CalculatorAPI.xml > api > resource > inSequenc
Ln 53, Col 13 Spaces: 4 UTF-8 LF SynapseXml

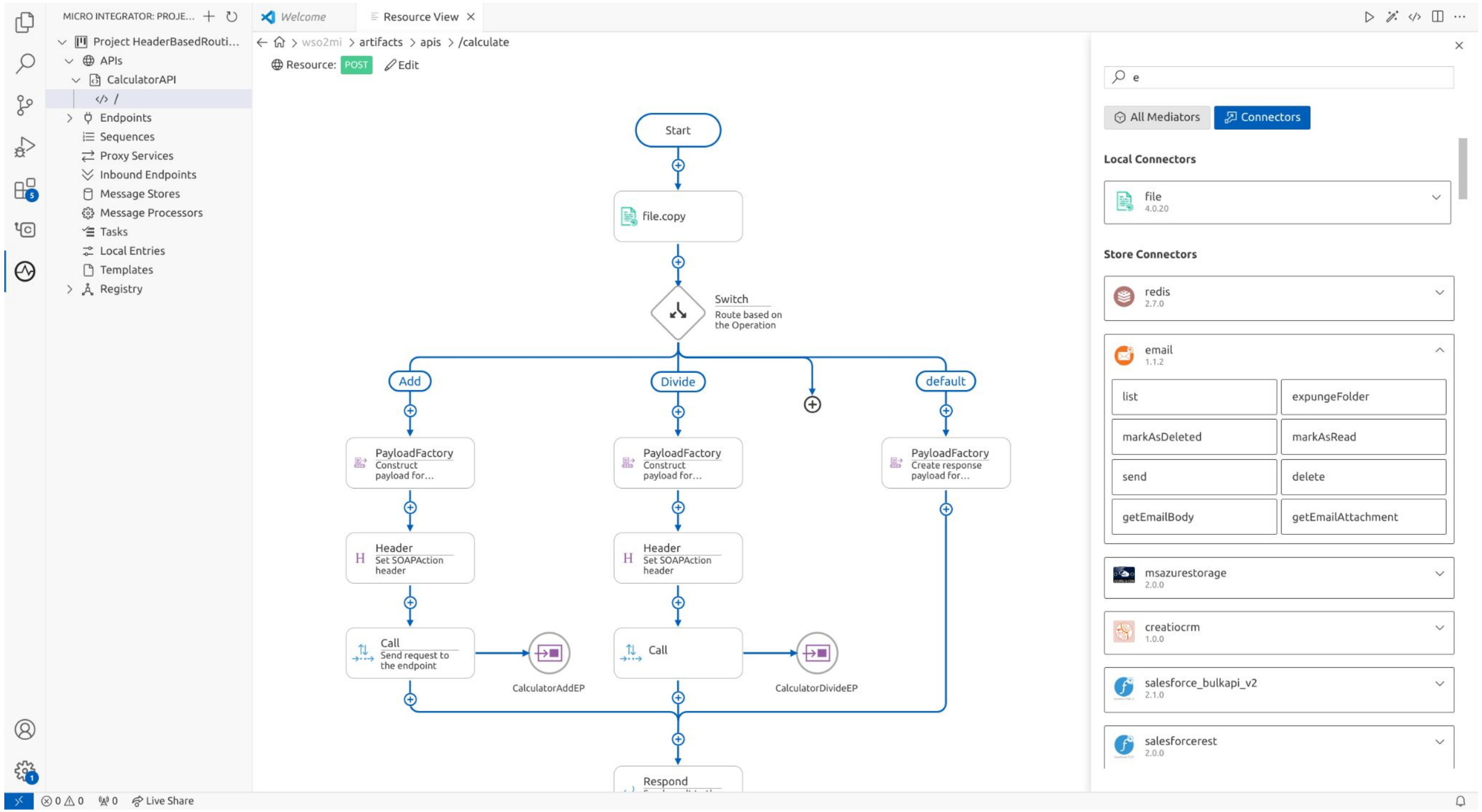
```
<api context="/calculate" name="CalculatorAPI" xmlns="http:
    <resource methods="POST">
        <inSequence>
            <switch description="Route based on the Operati
                <case regex="Divide">
                        <endpoint key="CalculatorDivideEP"/
                    </call>
                </case>
                <default>
                    <payloadFactory description="Create res
                        <format>
                            <Message xmlns="">Unsupported
                            operation.</Message>
                        </format>
                        <args/>
                    </payloadFactory>
                </default>
            </switch>

        </i
        <fa
    </resou
</api>
```

```
aggregate
bam
bean
builder
cache
call
call-template
callout
class
clone
conditionalRouter
datamapper
```

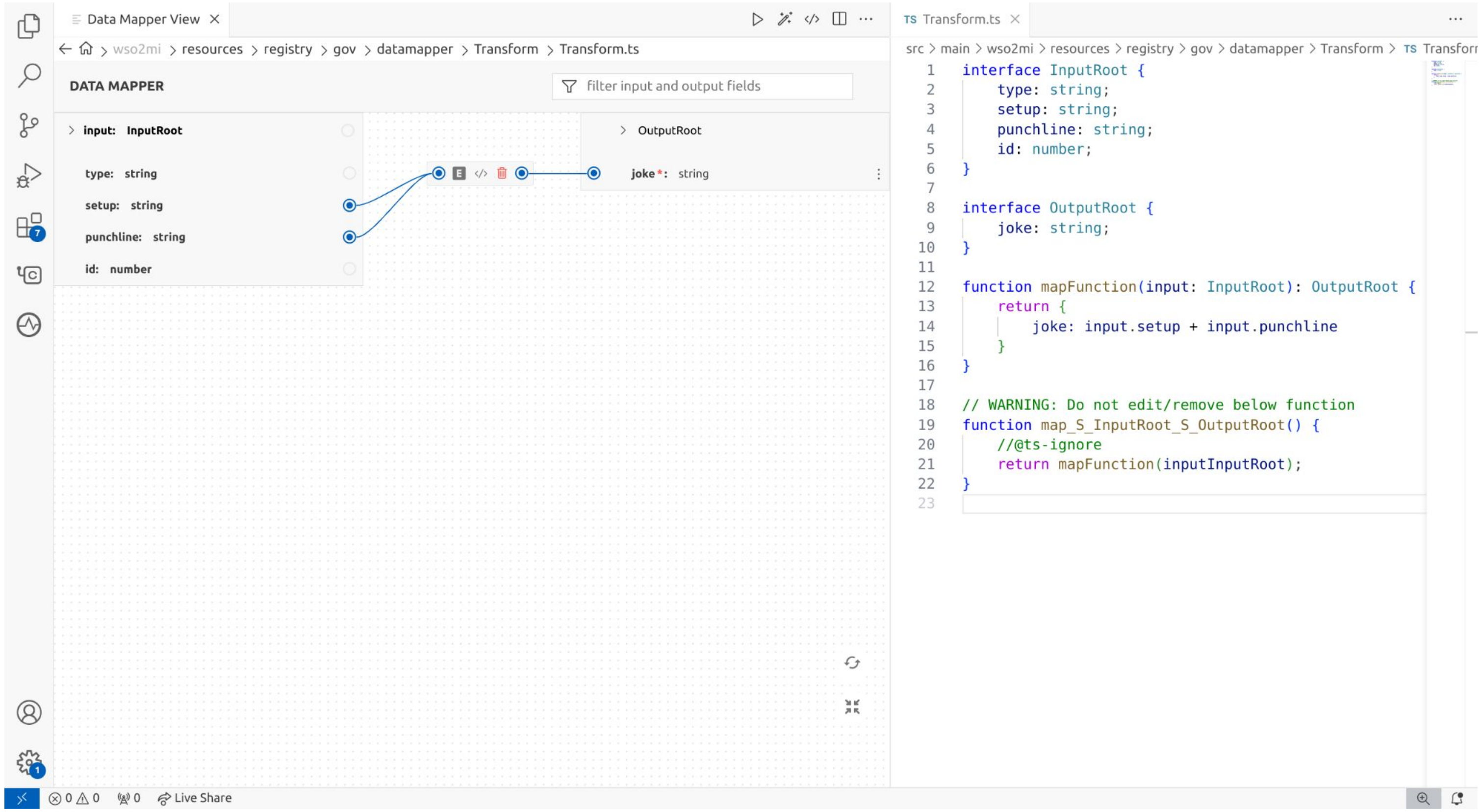
Visualize as a Flowchart



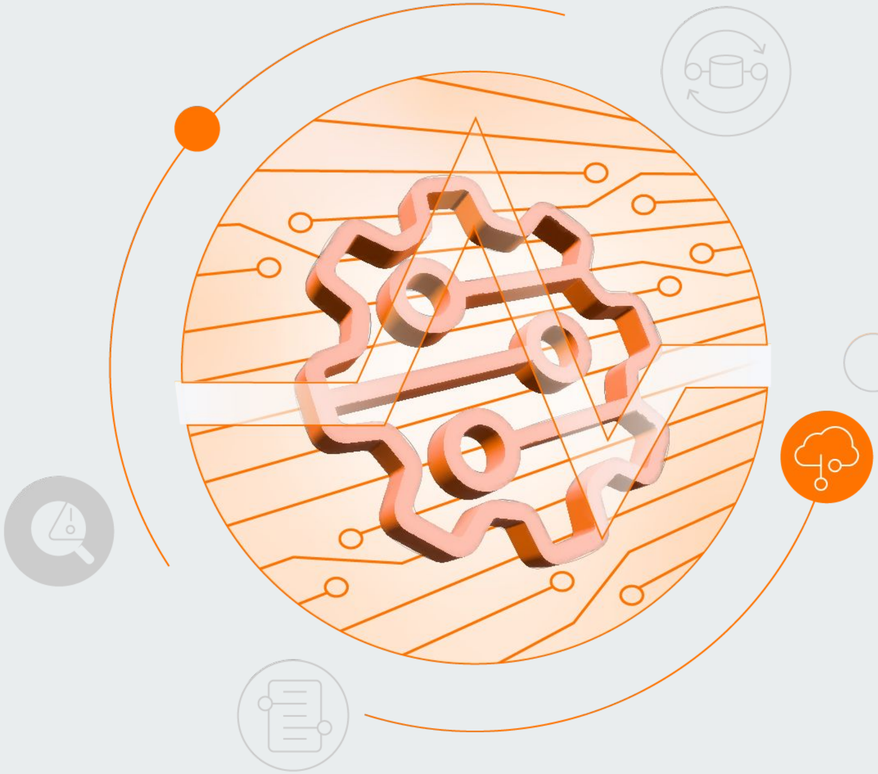
Integrated Connector store



New Datamapper


Data Mapper View
wso2mi > resources > registry > gov > datamapper > Transform > Transform.ts
DATA MAPPER
filter input and output fields
input: InputRoot
type: string
setup: string
punchline: string
id: number
OutputRoot
joke*: string
Transform.ts
src > main > wso2mi > resources > registry > gov > datamapper > Transform > Transfor
Live Share

```typescript
interface InputRoot {
    type: string;
    setup: string;
    punchline: string;
    id: number;
}

interface OutputRoot {
    joke: string;
}

function mapFunction(input: InputRoot): OutputRoot {
    return {
        joke: input.setup + input.punchline
    }
}

// WARNING: Do not edit/remove below function
function map_S_InputRoot_S_OutputRoot() {
    //@ts-ignore
    return mapFunction(inputInputRoot);
}
```



Try it out

Developer preview in VS Code Marketplace

GA release by end of Q2 - 2024

Question Time!

Thank You!