Service SOAP In Pega

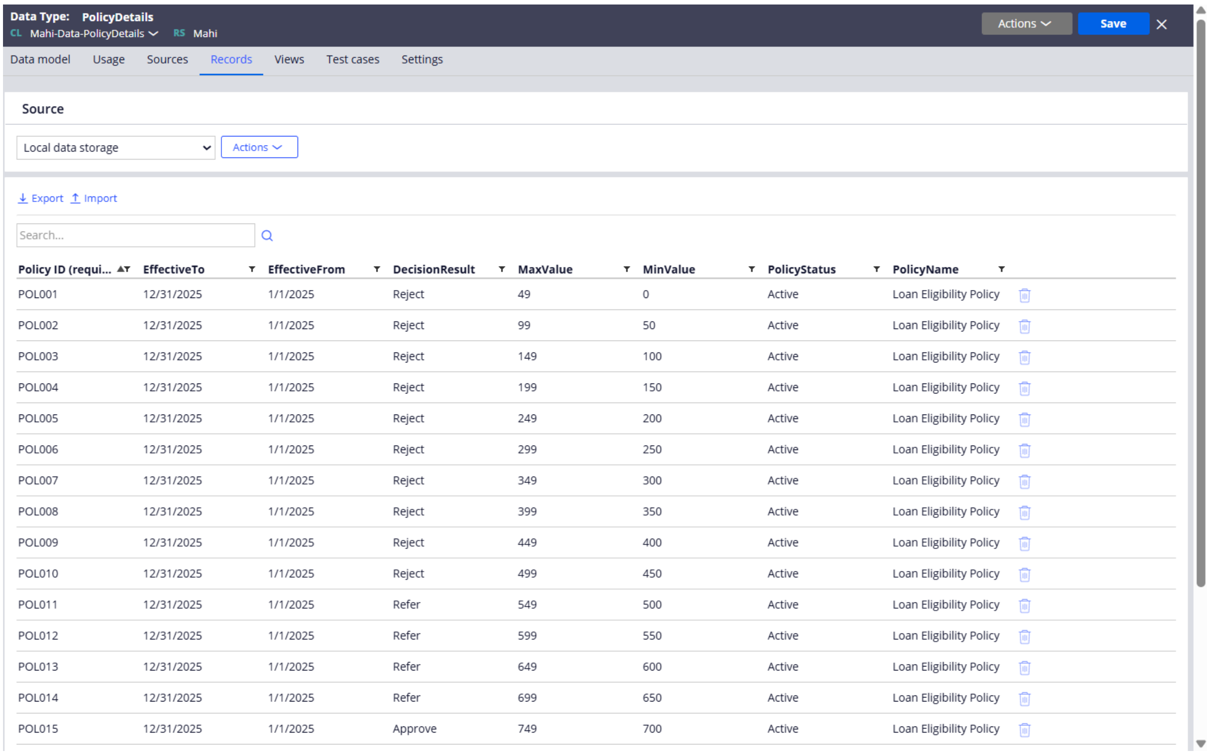
An Article By Amardeep

Hello All ,In todays Article We are going to see how we can create SOAP Service In Pega So lets Get Started!!

Let's Explore this document With step by step approach by end of this article one should be able to create SOAP Service In Pega By their Own.

What are we going to achieve?

- There is one table with key as Policy ID. When user gives request to PEGA and provide the Policy Id ,system will respond all the details such as Policy Name status etc.
- Here is the snapshot of Table created.



Data Type: PolicyDetails
CL Mahi-Data-PolicyDetails RS Mahi

Source

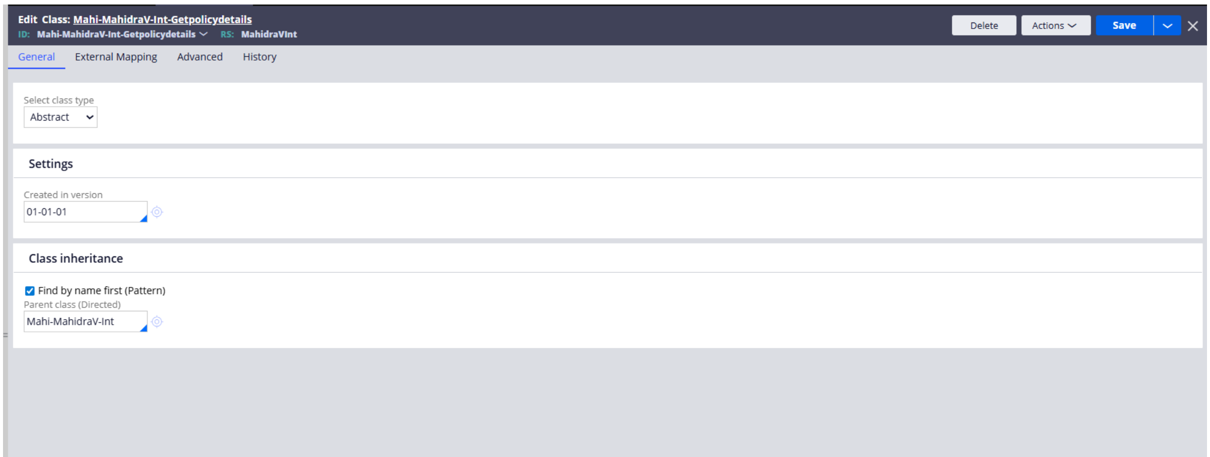
Local data storage

Policy ID (requi...	EffectiveTo	EffectiveFrom	DecisionResult	MaxValue	MinValue	PolicyStatus	PolicyName
POL001	12/31/2025	1/1/2025	Reject	49	0	Active	Loan Eligibility Policy
POL002	12/31/2025	1/1/2025	Reject	99	50	Active	Loan Eligibility Policy
POL003	12/31/2025	1/1/2025	Reject	149	100	Active	Loan Eligibility Policy
POL004	12/31/2025	1/1/2025	Reject	199	150	Active	Loan Eligibility Policy
POL005	12/31/2025	1/1/2025	Reject	249	200	Active	Loan Eligibility Policy
POL006	12/31/2025	1/1/2025	Reject	299	250	Active	Loan Eligibility Policy
POL007	12/31/2025	1/1/2025	Reject	349	300	Active	Loan Eligibility Policy
POL008	12/31/2025	1/1/2025	Reject	399	350	Active	Loan Eligibility Policy
POL009	12/31/2025	1/1/2025	Reject	449	400	Active	Loan Eligibility Policy
POL010	12/31/2025	1/1/2025	Reject	499	450	Active	Loan Eligibility Policy
POL011	12/31/2025	1/1/2025	Refer	549	500	Active	Loan Eligibility Policy
POL012	12/31/2025	1/1/2025	Refer	599	550	Active	Loan Eligibility Policy
POL013	12/31/2025	1/1/2025	Refer	649	600	Active	Loan Eligibility Policy
POL014	12/31/2025	1/1/2025	Refer	699	650	Active	Loan Eligibility Policy
POL015	12/31/2025	1/1/2025	Approve	749	700	Active	Loan Eligibility Policy

Lets Get in into the picture .

Create a Class which is inheriting from Div-Int Class.(Open question for the one who is following document Try to find Why we are following this structure and when you have answer draft the answer in comment box)

Step I. Create a class as is :



Edit Class: Mahi-MahidraV-Int-Getpolicydetails
ID: Mahi-MahidraV-Int-Getpolicydetails RS: MahidraVInt

Select class type
Abstract

Settings

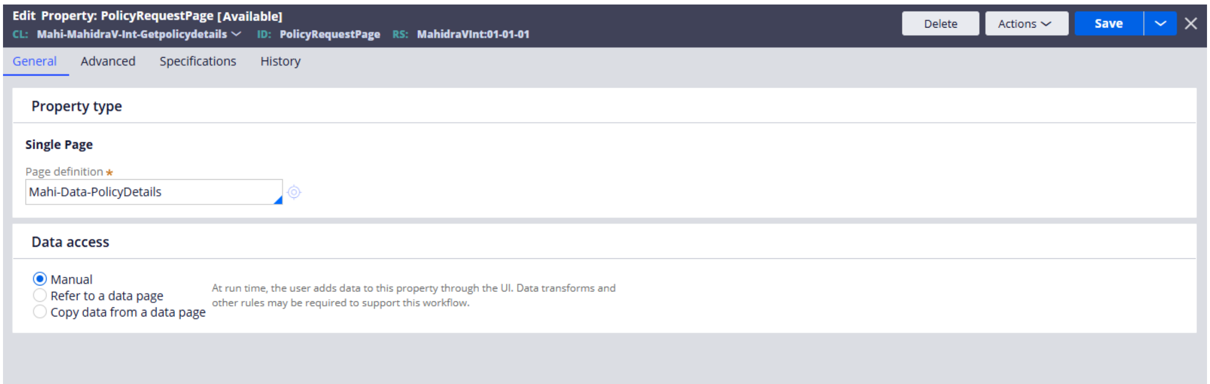
Created in version
01-01-01

Class inheritance

☑ Find by name first (Pattern)

Parent class (Directed)
Mahi-MahidraV-Int

Step II.Create one Request Page and Response Page as a single page type which will refer to Data Class.(Open Question: Why ? Please answer in comment box)



Property type

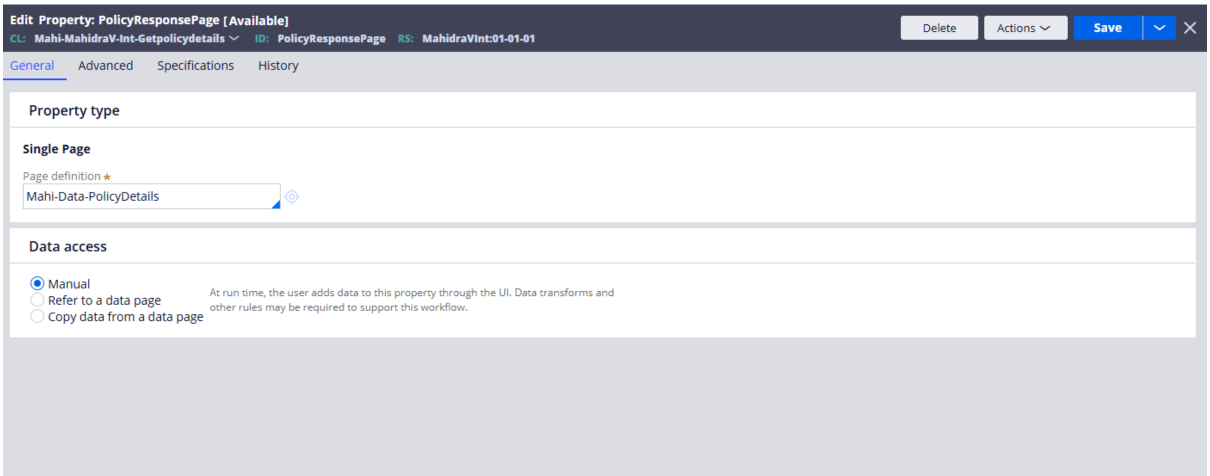
Single Page

Page definition *
Mahi-Data-PolicyDetails

Data access

● Manual
○ Refer to a data page
○ Copy data from a data page

At run time, the user adds data to this property through the UI. Data transforms and other rules may be required to support this workflow.



Property type

Single Page

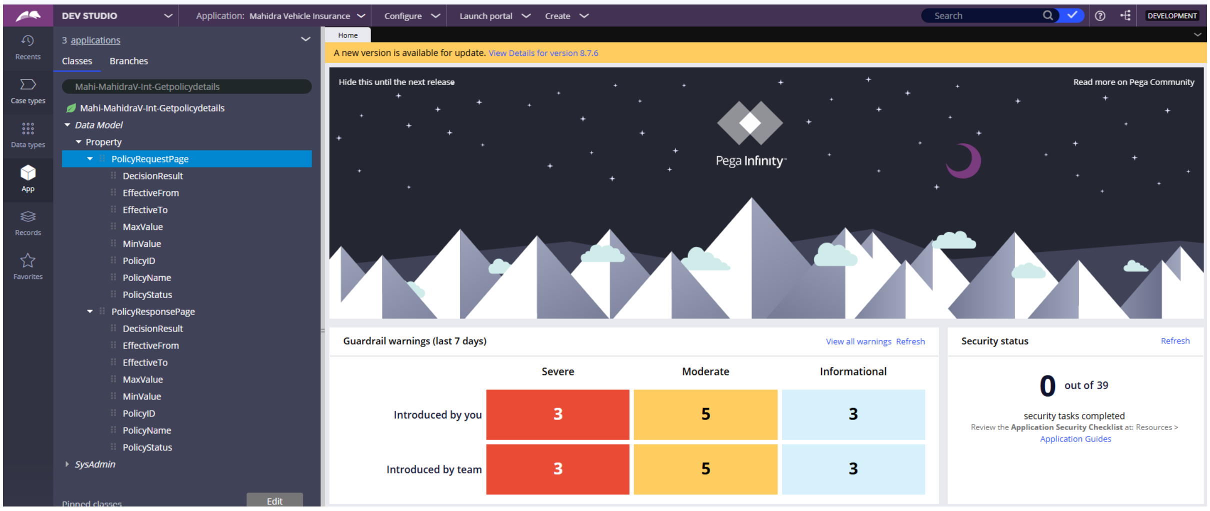
Page definition *
Mahi-Data-PolicyDetails

Data access

● Manual
○ Refer to a data page
○ Copy data from a data page

At run time, the user adds data to this property through the UI. Data transforms and other rules may be required to support this workflow.

Structure :



Mahi-MahidraV-Int-Getpolicydetails

- Mahi-MahidraV-Int-Getpolicydetails
  - Data Model
    - Property
      - PolicyRequestPage
        - DecisionResult
        - EffectiveFrom
        - EffectiveTo
        - MaxValue
        - MinValue
        - PolicyID
        - PolicyName
        - PolicyStatus
      - PolicyResponsePage
        - DecisionResult
        - EffectiveFrom
        - EffectiveTo
        - MaxValue
        - MinValue
        - PolicyID
        - PolicyName
        - PolicyStatus
  - SysAdmin

A new version is available for update. View Details for version 8.7.6

Guardrail warnings (last 7 days) View all warnings Refresh

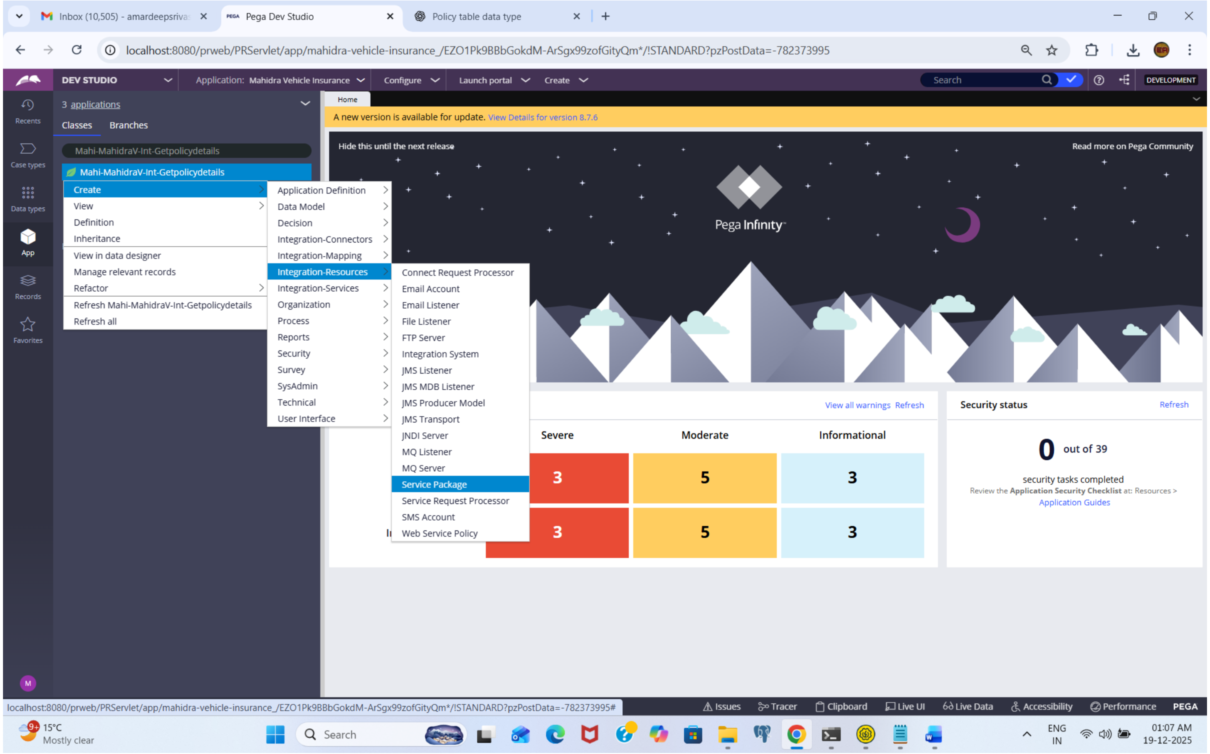
	Severe	Moderate	Informational
Introduced by you	3	5	3
Introduced by team	3	5	3

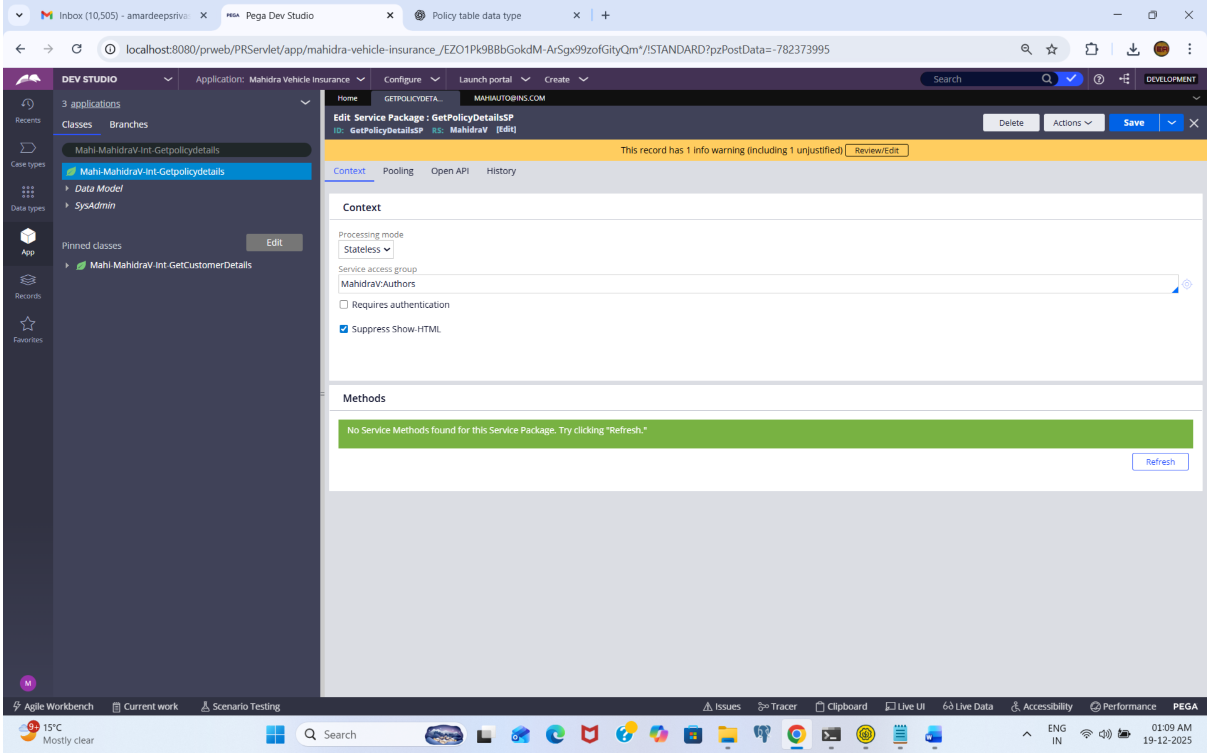
Security status Refresh

0 out of 39

security tasks completed
Review the Application Security Checklist at: Resources > Application Guides

Step III. Follow navigation to create service package.(Open Question: What is service package ?Why we need service pckage?Pls answer in comment box)




DEV STUDIO
Application: Mahindra Vehicle Insurance
Mahi-MahidraV-Int-Getpolicydetails
Data Model
SysAdmin
Pinned classes
Mahi-MahidraV-Int-GetCustomerDetails
Delete
Actions
Save
Context
Pooling
Open API
History
Refresh

Edit Service Package : GetPolicyDetailsSP

ID: GetPolicyDetailsSP RS: MahidraV [Edit]

This record has 1 info warning (including 1 unjustified) Review/Edit

Context

Processing mode: Stateless

Service access group: MahidraV:Authors

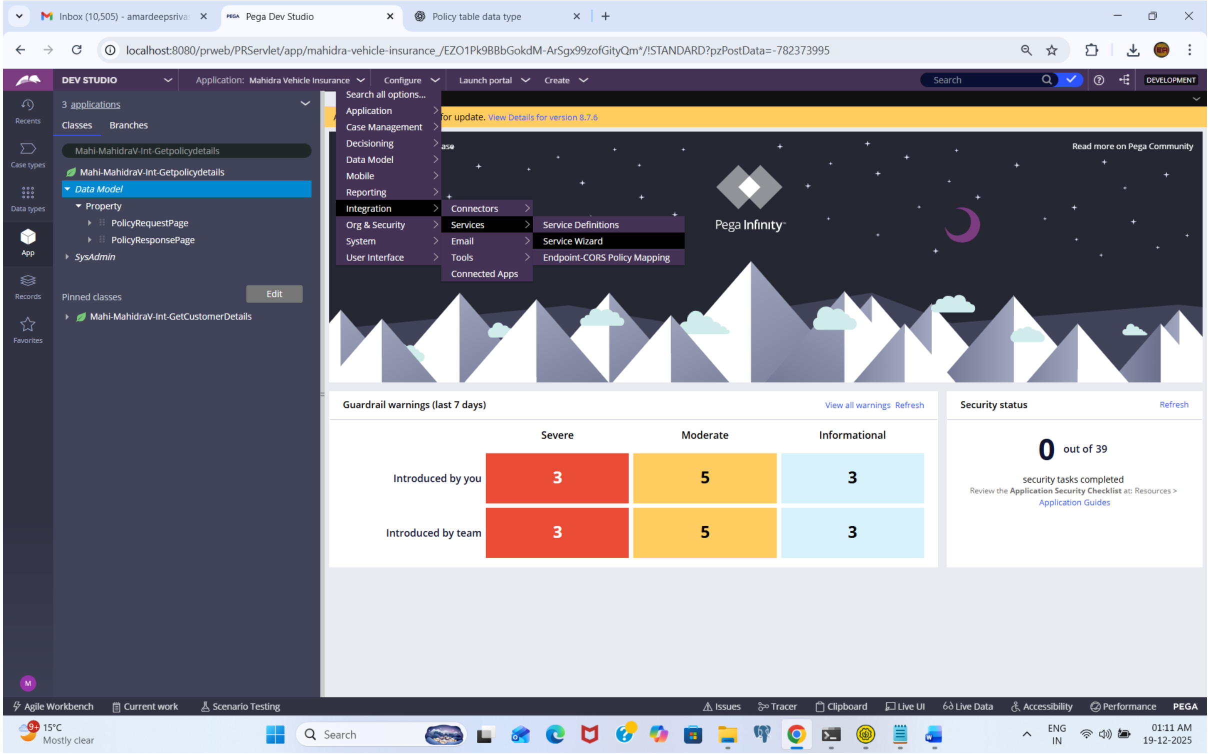
□ Requires authentication

☑ Suppress Show-HTML

Methods

No Service Methods found for this Service Package. Try clicking "Refresh."

Step IV.Lets use Wizard to create SOAP Services.



localhost:8080/prweb/PRServlet/app/mahidra-vehicle-insurance_/EZO1Pk9BBbGokdM-ArSgx99zofGityQm*/!STANDARD?pzPostData=-782373995

for update. View Details for version 8.7.6

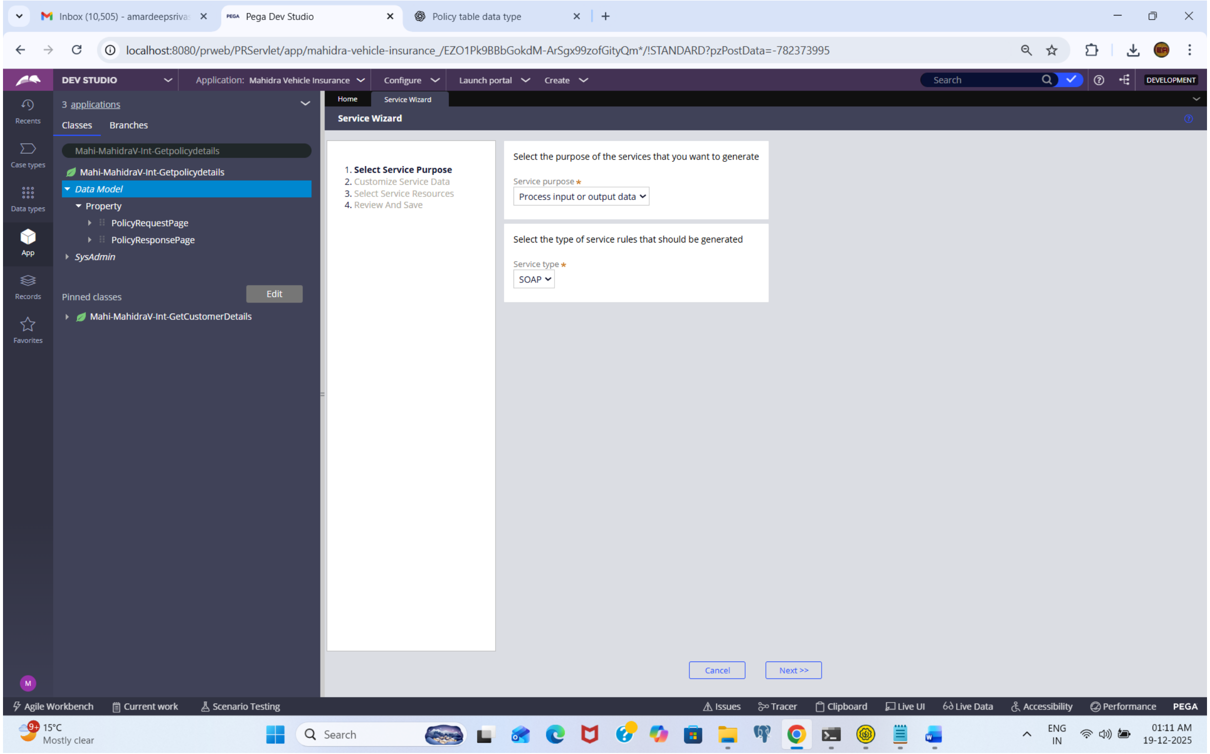
Guardrail warnings (last 7 days)

	Severe	Moderate	Informational
Introduced by you	3	5	3
Introduced by team	3	5	3

Security status

0 out of 39 security tasks completed

Review the Application Security Checklist at: Resources > Application Guides



Service Wizard

1. Select Service Purpose
2. Customize Service Data
3. Select Service Resources
4. Review And Save

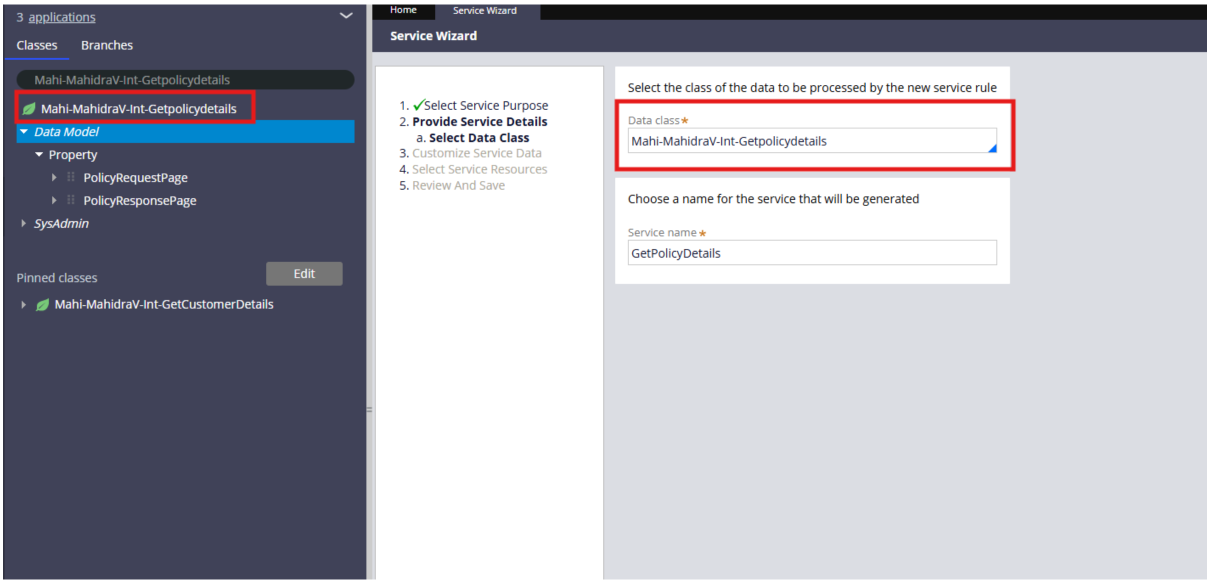
Select the purpose of the services that you want to generate

Service purpose * Process input or output data

Select the type of service rules that should be generated

Service type * SOAP

Give class name which we created earlier and suitable name of service.



1. ✓Select Service Purpose
2. Provide Service Details
   a. Select Data Class
3. Customize Service Data
4. Select Service Resources
5. Review And Save

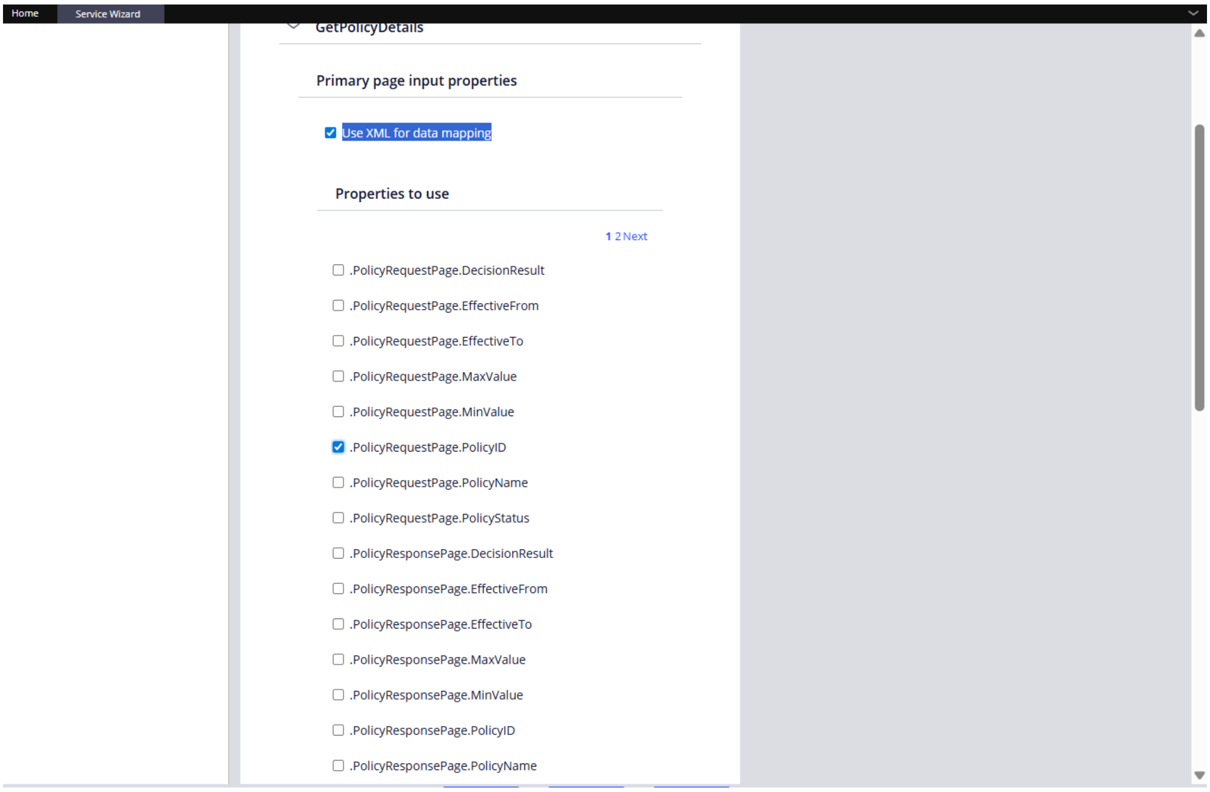
Select the class of the data to be processed by the new service rule

Data class* Mahi-MahidraV-Int-Getpolicydetails

Choose a name for the service that will be generated

Service name* GetPolicyDetails

Step V : Select Use XML for data mapping and select input property.



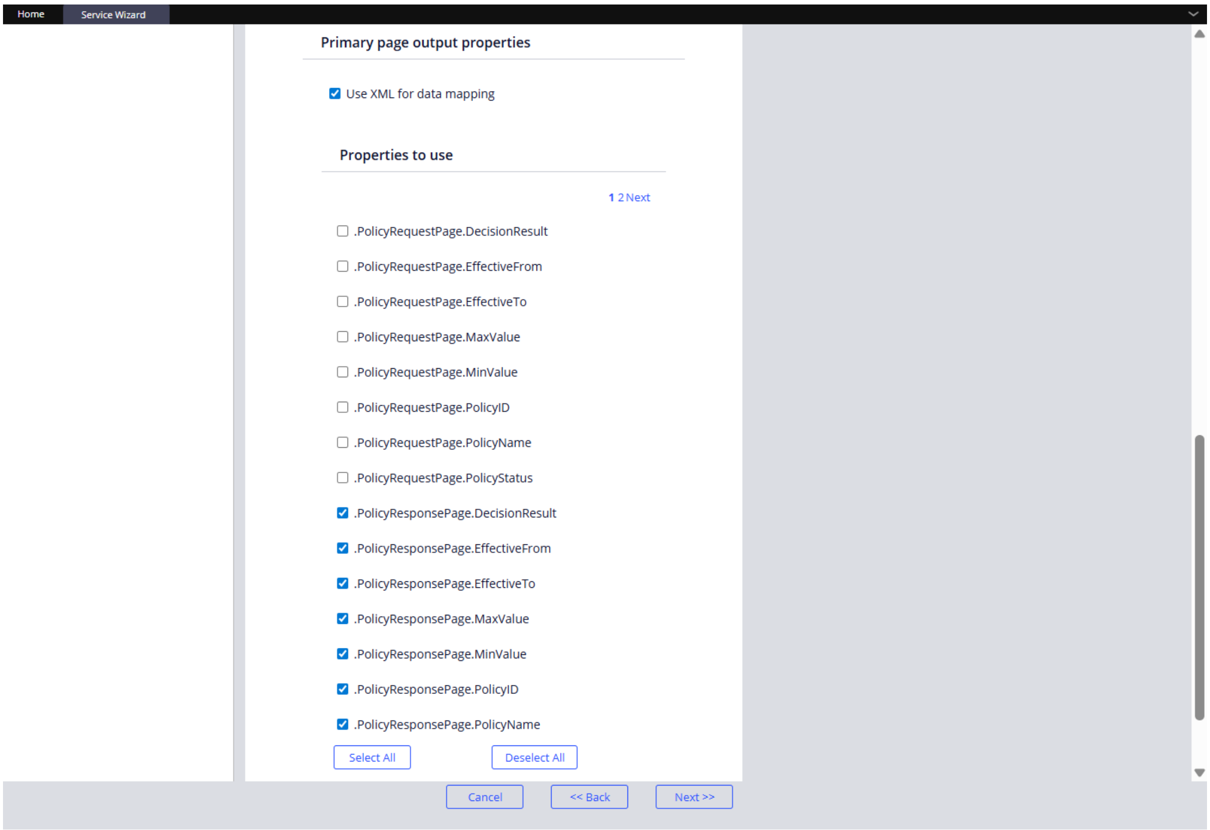
Primary page input properties

☑ Use XML for data mapping

Properties to use

□ .PolicyRequestPage.DecisionResult
□ .PolicyRequestPage.EffectiveFrom
□ .PolicyRequestPage.EffectiveTo
□ .PolicyRequestPage.MaxValue
□ .PolicyRequestPage.MinValue
☑ .PolicyRequestPage.PolicyID
□ .PolicyRequestPage.PolicyName
□ .PolicyRequestPage.PolicyStatus
□ .PolicyResponsePage.DecisionResult
□ .PolicyResponsePage.EffectiveFrom
□ .PolicyResponsePage.EffectiveTo
□ .PolicyResponsePage.MaxValue
□ .PolicyResponsePage.MinValue
□ .PolicyResponsePage.PolicyID
□ .PolicyResponsePage.PolicyName

Step VI: Select Use XML for data mapping and select output property.

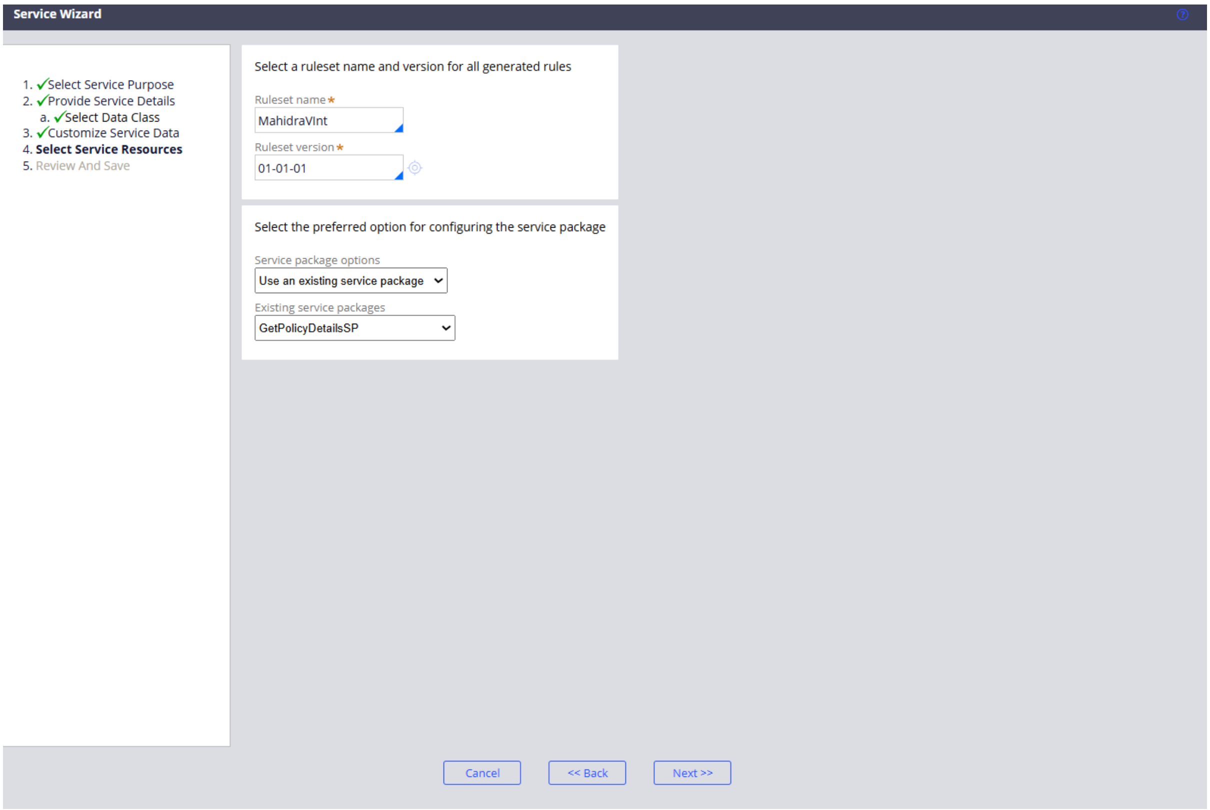


Primary page output properties

☑ Use XML for data mapping

Properties to use

☐ .PolicyRequestPage.DecisionResult
☐ .PolicyRequestPage.EffectiveFrom
☐ .PolicyRequestPage.EffectiveTo
☐ .PolicyRequestPage.MaxValue
☐ .PolicyRequestPage.MinValue
☐ .PolicyRequestPage.PolicyID
☐ .PolicyRequestPage.PolicyName
☐ .PolicyRequestPage.PolicyStatus
☑ .PolicyResponsePage.DecisionResult
☑ .PolicyResponsePage.EffectiveFrom
☑ .PolicyResponsePage.EffectiveTo
☑ .PolicyResponsePage.MaxValue
☑ .PolicyResponsePage.MinValue
☑ .PolicyResponsePage.PolicyID
☑ .PolicyResponsePage.PolicyName



1. ✓Select Service Purpose
2. ✓Provide Service Details
   a. ✓Select Data Class
3. ✓Customize Service Data
4. **Select Service Resources**
5. Review And Save

Select a ruleset name and version for all generated rules

Ruleset name*: MahidraVInt

Ruleset version*: 01-01-01

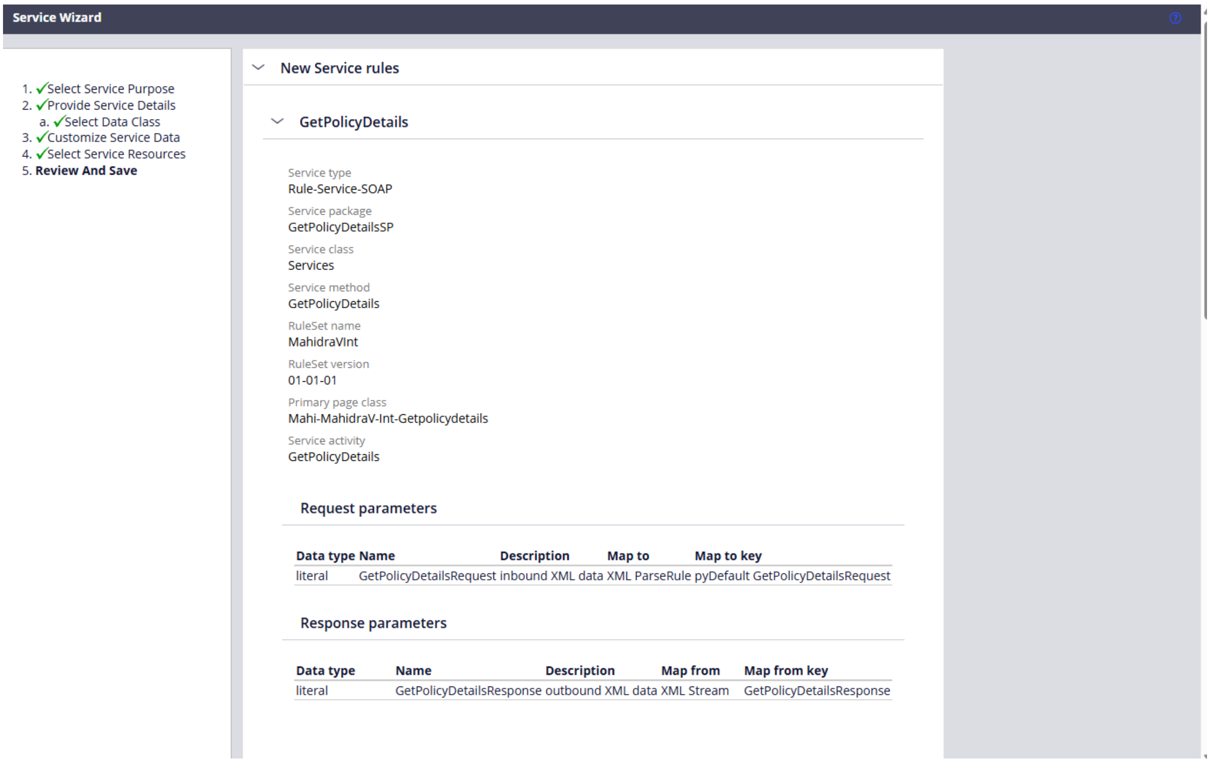
Select the preferred option for configuring the service package

Service package options: Use an existing service package

Existing service packages: GetPolicyDetailsSP

Select appropriate Division Integration ruleset and service package.

Step VI. Review everything and finish.



Service Wizard

1. ✓Select Service Purpose
2. ✓Provide Service Details
   a. ✓Select Data Class
3. ✓Customize Service Data
4. ✓Select Service Resources
5. **Review And Save**

New Service rules

GetPolicyDetails

Service type
Rule-Service-SOAP

Service package
GetPolicyDetailsSP

Service class
Services

Service method
GetPolicyDetails

RuleSet name
MahidraVInt

RuleSet version
01-01-01

Primary page class
Mahi-MahidraV-Int-Getpolicydetails

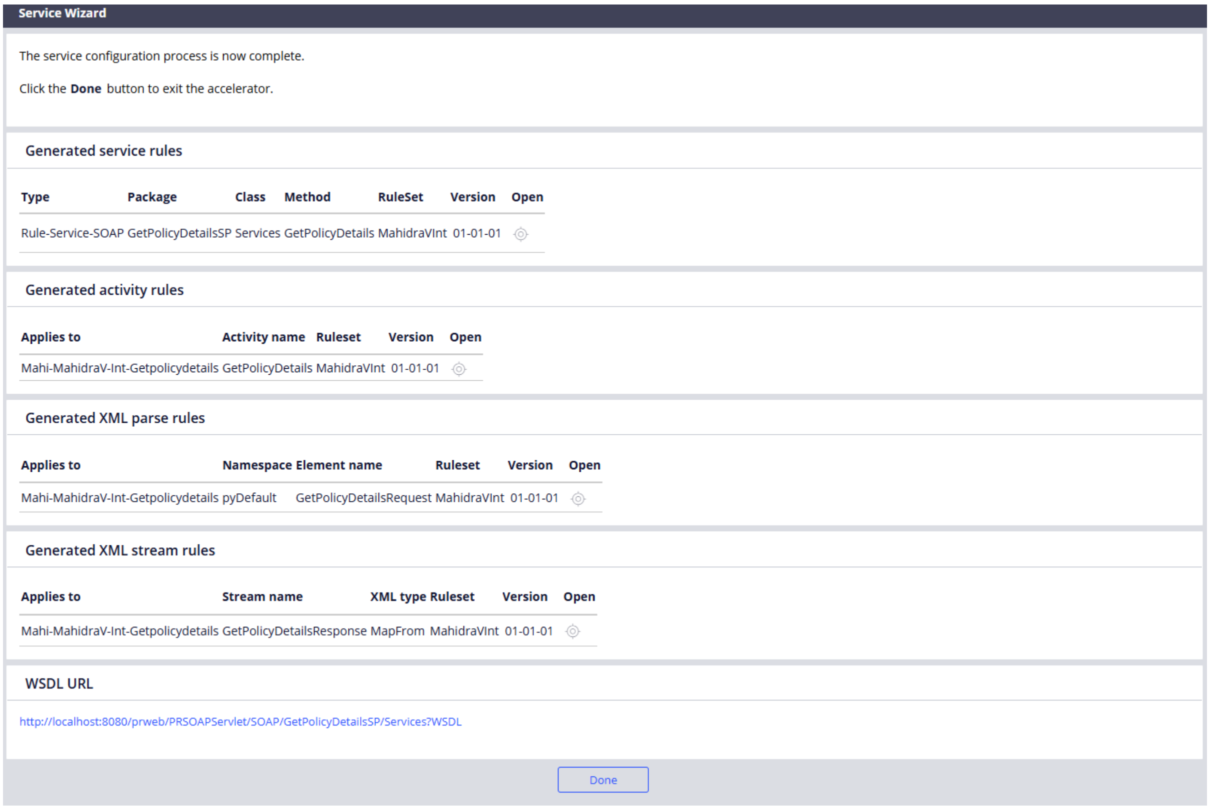
Service activity
GetPolicyDetails

Request parameters

Data type	Name	Description	Map to	Map to key
literal	GetPolicyDetailsRequest	inbound XML data	XML ParseRule	pyDefault GetPolicyDetailsRequest

Response parameters

Data type	Name	Description	Map from	Map from key
literal	GetPolicyDetailsResponse	outbound XML data	XML Stream	GetPolicyDetailsResponse



Service Wizard

The service configuration process is now complete.

Click the **Done** button to exit the accelerator.

Generated service rules

Type	Package	Class	Method	RuleSet	Version	Open
Rule-Service-SOAP	GetPolicyDetailsSP	Services	GetPolicyDetails	MahidraVInt	01-01-01	⚙

Generated activity rules

Applies to	Activity name	Ruleset	Version	Open
Mahi-MahidraV-Int-Getpolicydetails	GetPolicyDetails	MahidraVInt	01-01-01	⚙

Generated XML parse rules

Applies to	Namespace	Element name	Ruleset	Version	Open
Mahi-MahidraV-Int-Getpolicydetails	pyDefault	GetPolicyDetailsRequest	MahidraVInt	01-01-01	⚙

Generated XML stream rules

Applies to	Stream name	XML type	Ruleset	Version	Open
Mahi-MahidraV-Int-Getpolicydetails	GetPolicyDetailsResponse	MapFrom	MahidraVInt	01-01-01	⚙

WSDL URL

http://localhost:8080/prweb/PRSOAPServlet/SOAP/GetPolicyDetailsSP/Services?WSDL

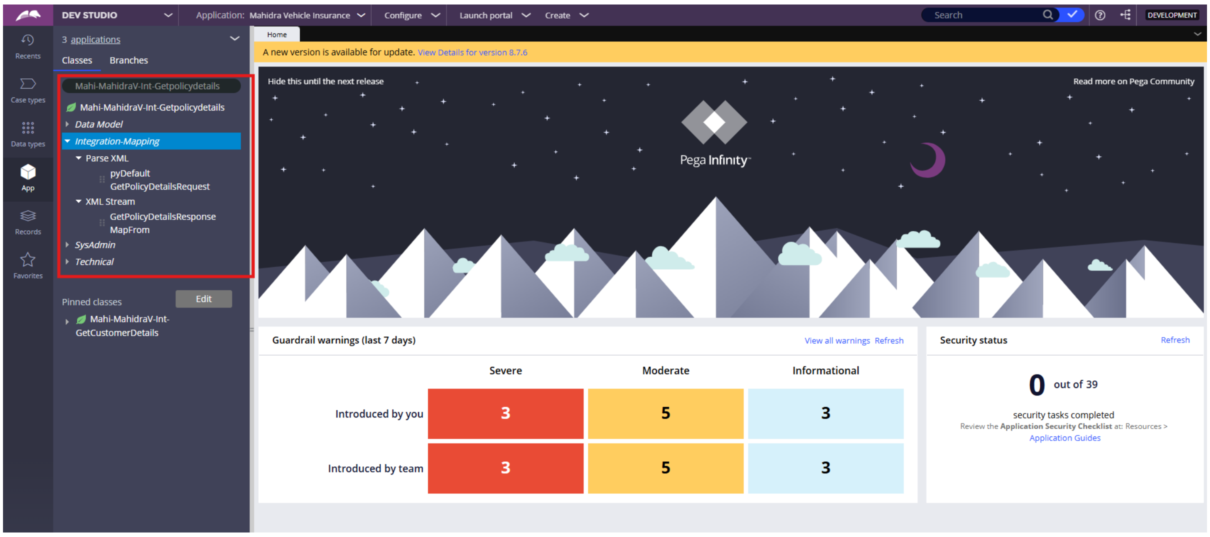
What is WSDL ?

➔**WSDL (Web Services Description Language)** in Pega is an **XML-based contract** used in **SOAP integrations**.

It defines **available operations**, **request and response structure**, **data types**, and the **service endpoint**.
When Pega exposes a SOAP service, it **automatically generates a WSDL** for consumers.
When Pega consumes an external SOAP service, it **imports the WSDL** to create SOAP connectors.
WSDL ensures both Pega and external systems **follow the same structure and rules** during communication.

We can see the Parse XML and stream rules also created.

⇨ **Parse XML** and **XML Stream** in Pega are used to **handle XML data during integrations**.
Parse XML converts an incoming XML (SOAP request/response) into **clipboard properties** based on the XML structure.
It is commonly used after **SOAP connectors or services** to read XML data.
XML Stream is used to **generate XML output** from clipboard data.
It defines how properties are mapped into XML tags.
Together, Parse XML reads XML into Pega, and XML Stream sends XML out from Pega.

⇨ 

A new version is available for update. View Details for version 8.7.6

Mahi-MahidraV-Int-Getpolicydetails
- Mahi-MahidraV-Int-Getpolicydetails
  - Data Model
  - Integration-Mapping
    - Parse XML
      - pyDefault GetPolicyDetailsRequest
    - XML Stream
      - GetPolicyDetailsResponse MapFrom
  - SysAdmin
  - Technical

Pinned classes
- Mahi-MahidraV-Int-GetCustomerDetails

Guardrail warnings (last 7 days)

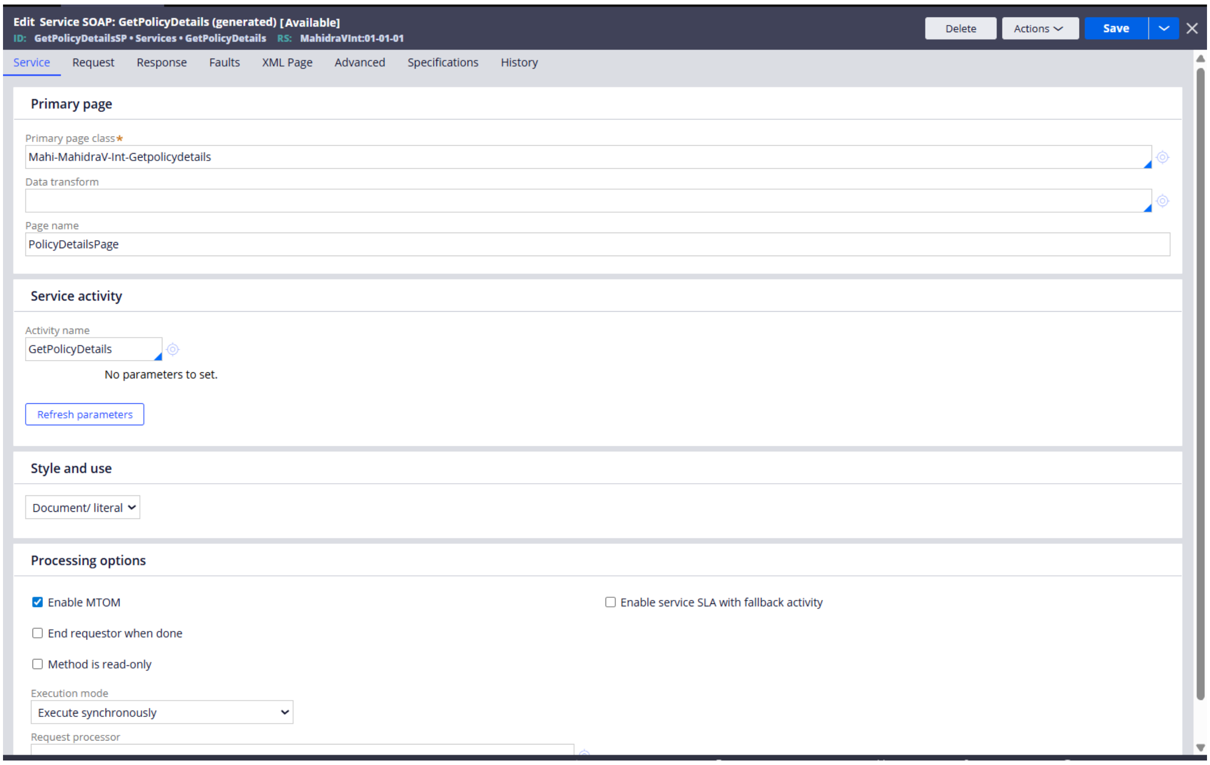
	Severe	Moderate	Informational
Introduced by you	3	5	3
Introduced by team	3	5	3

Security status

0 out of 39

security tasks completed
Review the **Application Security Checklist** at: Resources > Application Guides

Step VII. Configure the Service SOAP. Configure Activity.



Edit Service SOAP: GetPolicyDetails (generated) [Available]

ID: GetPolicyDetailsSP • Services • GetPolicyDetails RS: MahidraVInt:01-01-01

Service | Request | Response | Faults | XML Page | Advanced | Specifications | History

Primary page

Primary page class* Mahi-MahidraV-Int-Getpolicydetails

Data transform

Page name PolicyDetailsPage

Service activity

Activity name GetPolicyDetails

No parameters to set.

Refresh parameters

Style and use

Document/ literal

Processing options

☑ Enable MTOM

☐ Enable service SLA with fallback activity

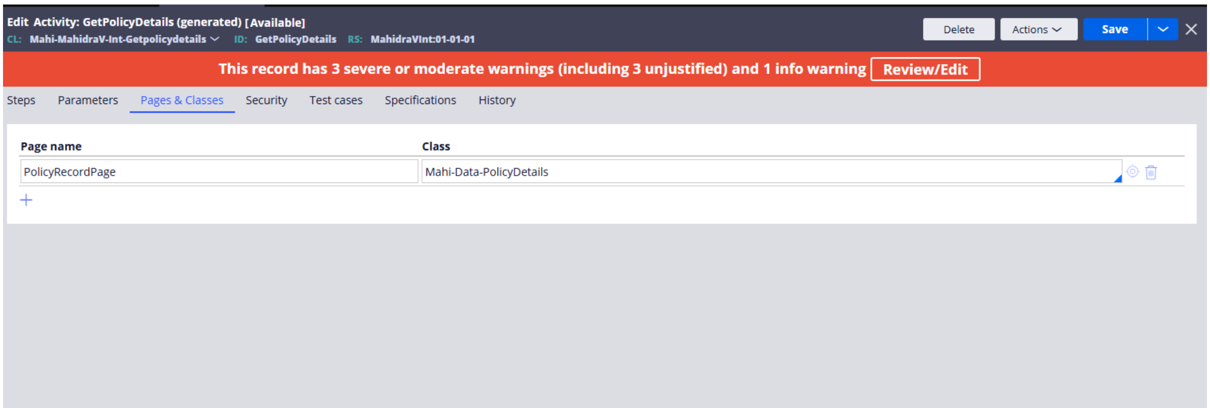
☐ End requestor when done

☐ Method is read-only

Execution mode Execute synchronously

Request processor

Configured the activity :



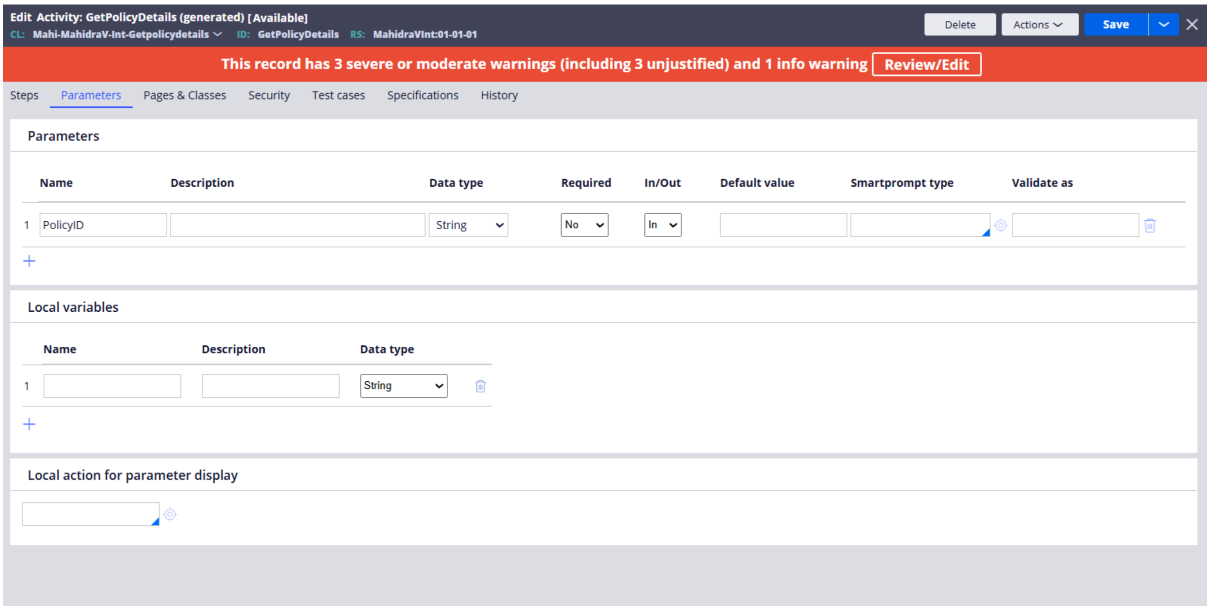
Edit Activity: GetPolicyDetails (generated) [Available]

CL: Mahi-MahidraV-Int-Getpolicydetails ID: GetPolicyDetails RS: MahidraVInt:01-01-01

This record has 3 severe or moderate warnings (including 3 unjustified) and 1 info warning

Steps | Parameters | Pages & Classes | Security | Test cases | Specifications | History

Page name	Class
PolicyRecordPage	Mahi-Data-PolicyDetails



This record has 3 severe or moderate warnings (including 3 unjustified) and 1 info warning

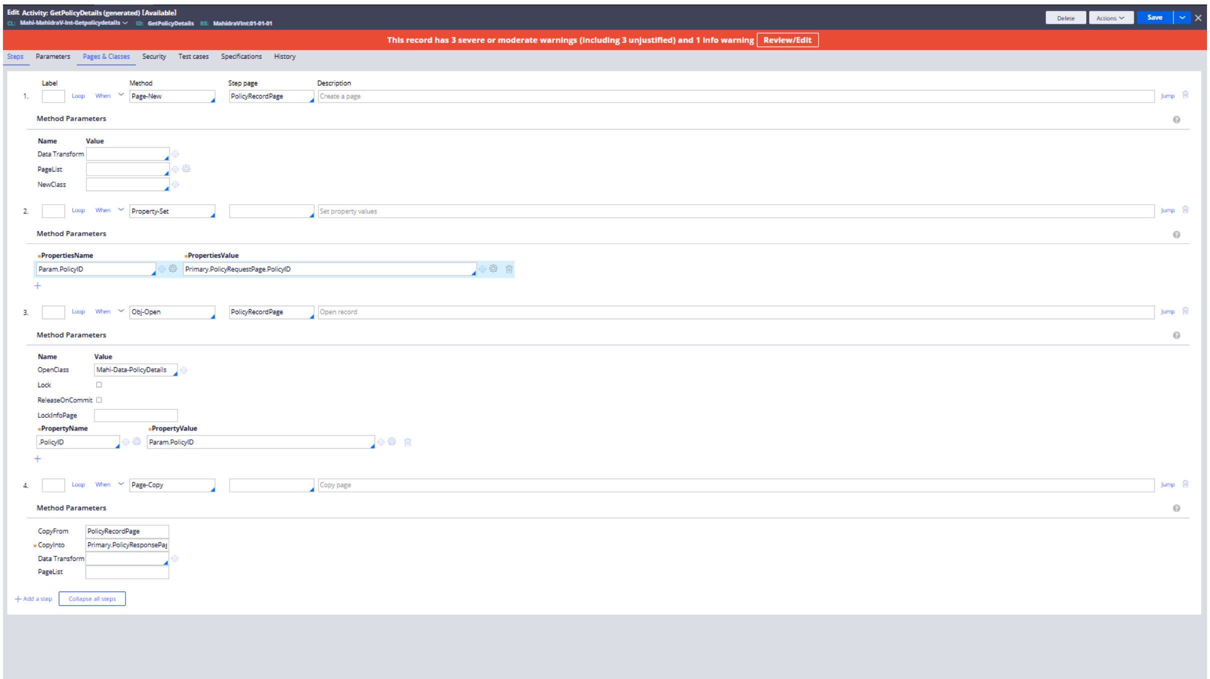
Parameters

	Name	Description	Data type	Required	In/Out	Default value	Smartprompt type	Validate as
1	PolicyID		String	No	In			

Local variables

	Name	Description	Data type
1			String

Local action for parameter display



This record has 3 severe or moderate warnings (including 3 unjustified) and 1 info warning

	Label			Method	Step page	Description
1.		Loop	When	Page-New	PolicyRecordPage	Create a page

Method Parameters

Name	Value
Data Transform	
PageList	
NewClass	

	Label			Method	Step page	Description
2.		Loop	When	Property-Set		Set property values

Method Parameters

*PropertiesName	*PropertiesValue
Param.PolicyID	Primary.PolicyRequestPage.PolicyID

	Label			Method	Step page	Description
3.		Loop	When	Obj-Open	PolicyRecordPage	Open record

Method Parameters

Name	Value
OpenClass	Mahi-Data-PolicyDetails
Lock	☐
ReleaseOnCommit	☐
LockInfoPage	

*PropertyName	*PropertyValue
.PolicyID	Param.PolicyID

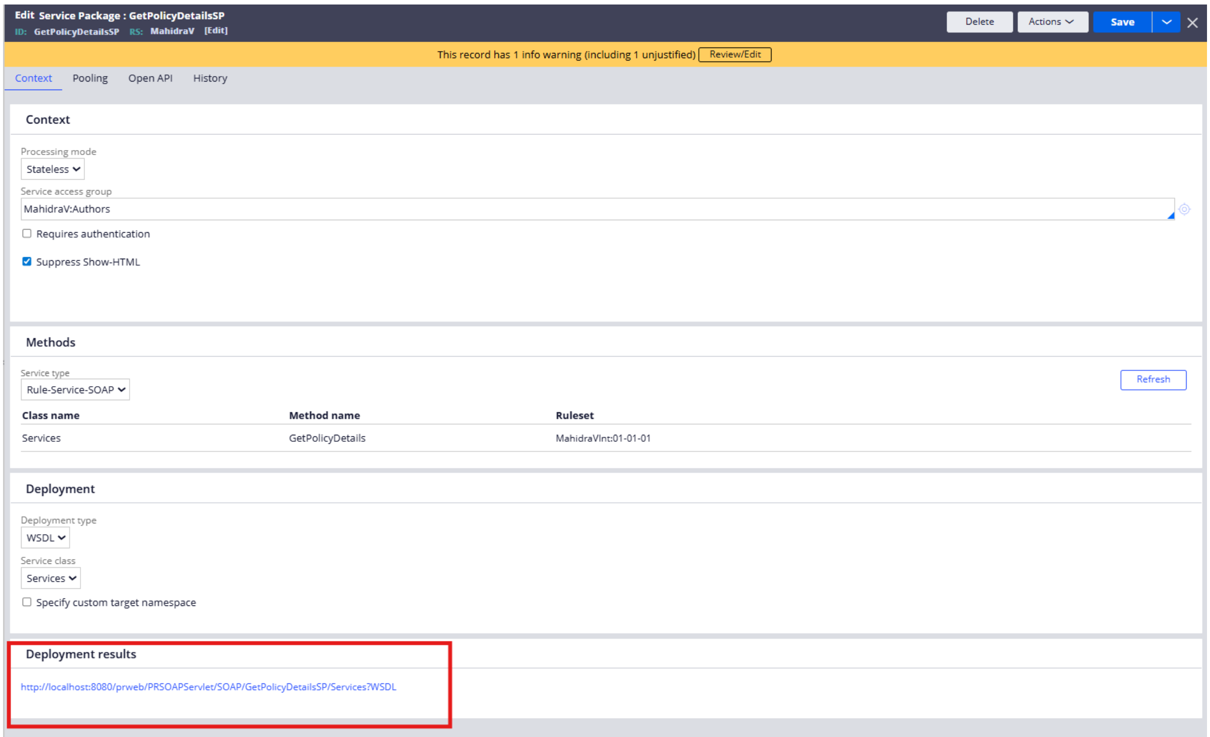
	Label			Method	Step page	Description
4.		Loop	When	Page-Copy		Copy page

Method Parameters

CopyFrom	PolicyRecordPage
*CopyInto	Primary.PolicyResponsePag
Data Transform	
PageList	

Testing Time :We will use SOAP UI for Testing.

Copy the WSDL from the service package.



Edit Service Package : GetPolicyDetailsSP

ID: GetPolicyDetailsSP RS: MahidraV [Edit]

This record has 1 info warning (including 1 unjustified) Review/Edit

Context

Processing mode: Stateless

Service access group: MahidraV:Authors

☐ Requires authentication

☑ Suppress Show-HTML

Methods

Service type: Rule-Service-SOAP

Class name	Method name	Ruleset
Services	GetPolicyDetails	MahidraVInt:01-01-01

Deployment

Deployment type: WSDL

Service class: Services

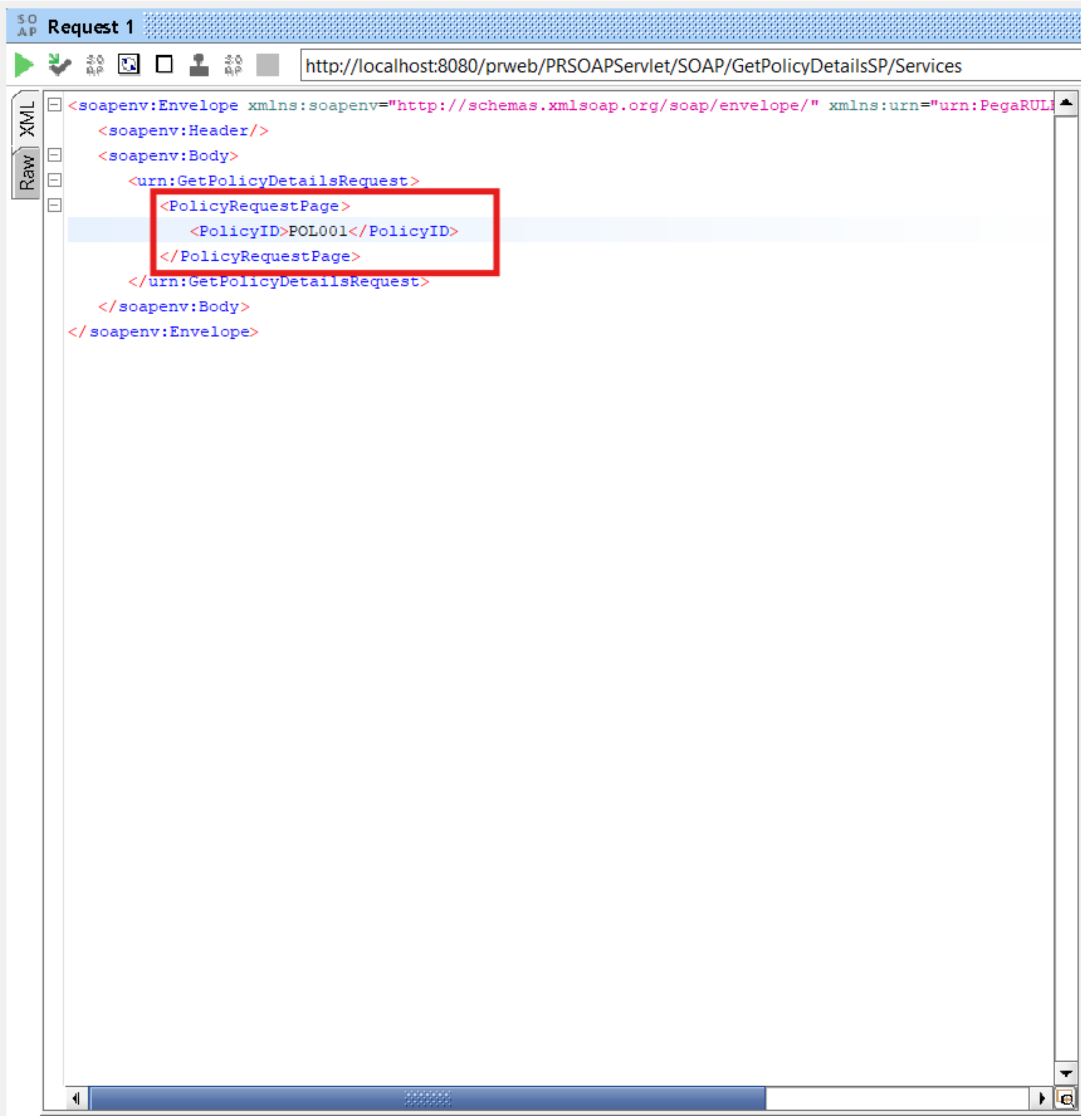
☐ Specify custom target namespace

Deployment results

http://localhost:8080/prweb/PRSOAPServlet/SOAP/GetPolicyDetailsSP/Services?WSDL

SOAP UI configuration :

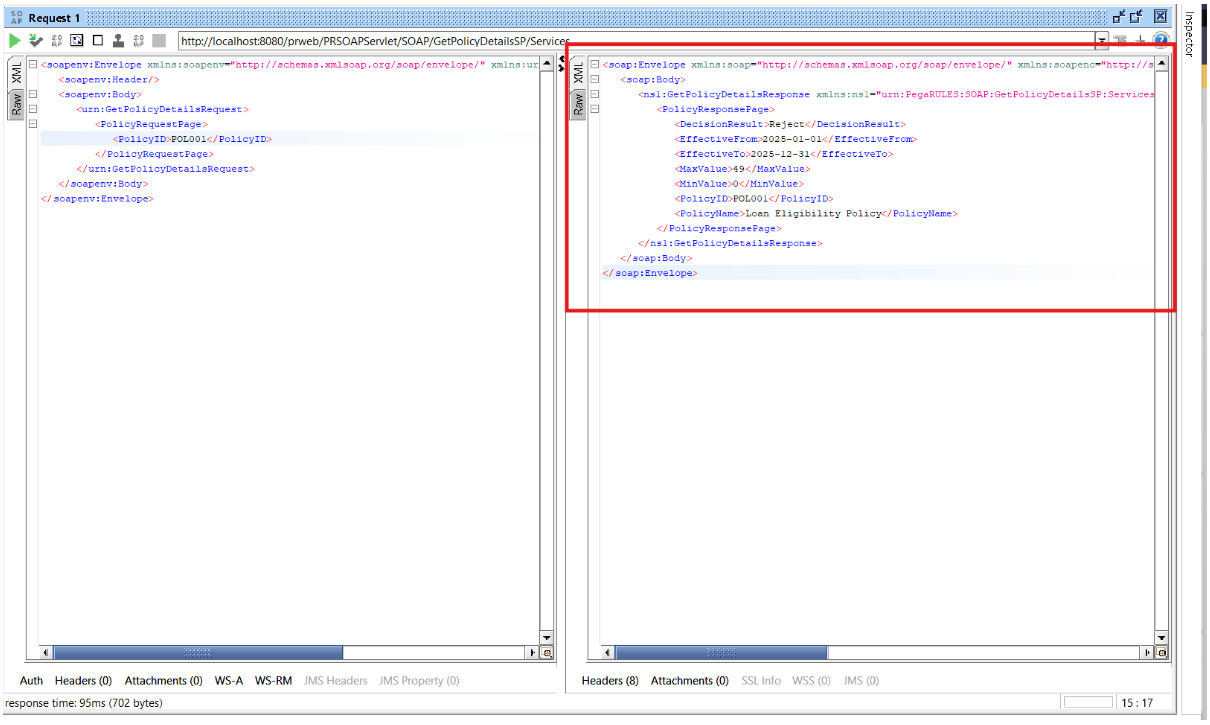
Mention details as is:



http://localhost:8080/prweb/PRSOAPServlet/SOAP/GetPolicyDetailsSP/Services

```
<soapenv:Envelope xmlns:soapenv="http://schemas.xmlsoap.org/soap/envelope/" xmlns:urn="urn:PegaRULE
   <soapenv:Header/>
   <soapenv:Body>
      <urn:GetPolicyDetailsRequest>
         <PolicyRequestPage>
            <PolicyID>POL001</PolicyID>
         </PolicyRequestPage>
      </urn:GetPolicyDetailsRequest>
   </soapenv:Body>
</soapenv:Envelope>
```

We Got the response as :



http://localhost:8080/prweb/PRSOAPServlet/SOAP/GetPolicyDetailsSP/Services

```
<soapenv:Envelope xmlns:soapenv="http://schemas.xmlsoap.org/soap/envelope/" xmlns:ur
   <soapenv:Header/>
   <soapenv:Body>
      <urn:GetPolicyDetailsRequest>
         <PolicyRequestPage>
            <PolicyID>POL001</PolicyID>
         </PolicyRequestPage>
      </urn:GetPolicyDetailsRequest>
   </soapenv:Body>
</soapenv:Envelope>
```

```
<soap:Envelope xmlns:soap="http://schemas.xmlsoap.org/soap/envelope/" xmlns:soapenc="http://s
   <soap:Body>
      <ns1:GetPolicyDetailsResponse xmlns:ns1="urn:PegaRULES:SOAP:GetPolicyDetailsSP:Services
         <PolicyResponsePage>
            <DecisionResult>Reject</DecisionResult>
            <EffectiveFrom>2025-01-01</EffectiveFrom>
            <EffectiveTo>2025-12-31</EffectiveTo>
            <MaxValue>49</MaxValue>
            <MinValue>0</MinValue>
            <PolicyID>POL001</PolicyID>
            <PolicyName>Loan Eligibility Policy</PolicyName>
         </PolicyResponsePage>
      </ns1:GetPolicyDetailsResponse>
   </soap:Body>
</soap:Envelope>
```

response time: 95ms (702 bytes)

Hope you all like this article it takes lot of effort to create these type of documents please share and follow me and give like and tell your thoughts in comment please.

Happy Learning !!