

FILE LISTENER

To achieve the file listener functionality, we need to create 6 rules.

Those are:

1. CSV File
2. Service Package
3. Service File
4. Parse Delimited
5. Activity
6. File Listener

Note:

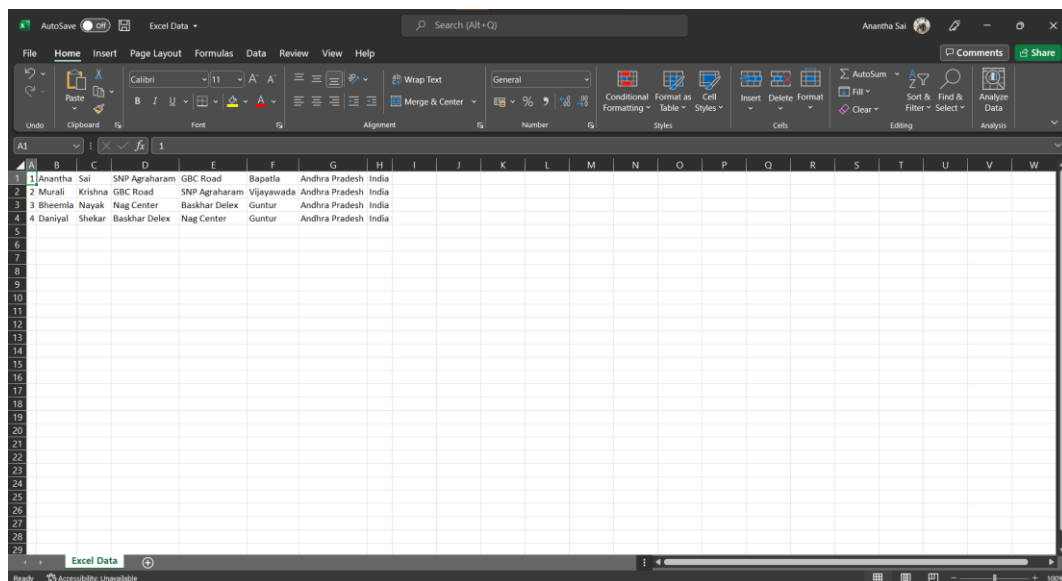
1. Definitely you need a personal edition or virtual machine on your laptop to achieve the file listener functionality. You can't do it in the Pega academy cloud instance.

In virtual machine before running the file listener from Admin Studio,

1. You need to create folders manually in the path as proper permissions were not provided to the user.
2. In File Listener folder create 'report' and 'work_CustDTFileListener' folders. Where CustDTFileListener is the name of file listener.
3. Create a folder in 'work_CustDTFileListener' as 'completed'.

Step1: Create a CSV file with the below data.

1.	Anantha	Sai	SNP Agraharam	GBC Road	Bapatla	Andhra Pradesh	India
2.	Murali	Krishna	GBC Road	SNP Agraharam	Vijayawada	Andhra Pradesh	India
3.	Bheemla	Nayak	Nag Center	Baskhar Delex	Guntur	Andhra Pradesh	India
4.	Daniyal	Shekar	Baskhar Delex	Nag Center	Guntur	Andhra Pradesh	India



The screenshot shows a Microsoft Excel spreadsheet with the following data:

	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q	R	S	T	U	V	W
1		Anantha	Sai	SNP Agraharam	GBC Road	Bapatla	Andhra Pradesh	India															
2		Murali	Krishna	GBC Road	SNP Agraharam	Vijayawada	Andhra Pradesh	India															
3		Bheemla	Nayak	Nag Center	Baskhar Delex	Guntur	Andhra Pradesh	India															
4		Daniyal	Shekar	Baskhar Delex	Nag Center	Guntur	Andhra Pradesh	India															

File format CSV (Comma-Separated Values)

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Step2: Create a Data Type same as the below image and add the required fields.

The screenshot shows the 'Data Type: Customer' configuration window. The 'Data model' tab is active, displaying a table of fields. A red box highlights the table content.

Name	ID	Type	Options	Application Layer
Address1	Address1	Text (single line)		RND
Address2	Address2	Text (single line)		RND
City	City	Text (single line)		RND
Country	Country	Text (single line)		RND
CustID	CustID	Text (single line)	Key; Read-only	RND
First Name	FirstName	Text (single line)		RND
Last Name	LastName	Text (single line)		RND
State	State	Text (single line)		RND

- Create a Local source with a key as CustID and save the data type.

Step3: Create a Single Page property in the Work Class same as below and give the data type class name as the page definition.

The screenshot shows the 'Edit Property: Customer' configuration window. The 'General' tab is active, displaying the 'Property type' section. A red box highlights the 'Single Page' property type and the 'Page definition' field, which contains 'RND-Research-Data-Customer'.

Property type

Single Page

Page definition ★
RND-Research-Data-Customer

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.

Step4: Now create a Service Package from Records.

Navigation: Records → Integration-Resources → Service Package.

FILE LISTENER

- Assign the Service Access Group as Authors and un-select the Requires authentication check box and save the Service Package.

The screenshot shows the 'Edit Service Package' interface for 'FileListenerPackage'. The interface includes a top bar with 'Delete', 'Actions', and 'Save' buttons. A yellow warning banner states 'This record has 1 info warning (including 1 unjustified)'. Below this is a tabbed interface with 'Context', 'Pooling', 'Open API', and 'History' tabs. The 'Context' tab is active, showing a 'Processing mode' dropdown set to 'Stateless'. A red box labeled '1' highlights the 'Service access group' dropdown, which is currently set to 'Research:Authors'. A red arrow labeled '2' points to the 'Requires authentication' checkbox, which is unchecked. A red arrow labeled '3' points to the 'Save' button. The 'Suppress Show-HTML' checkbox is checked.

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Step5: Now create a Service File from Records.

Navigation: Records → Integration-Services → Service File.

Keep Package name as previously created Service Package name (i.e., MyServicePage) and Customer Class Name as 'CSV'.

In-Service tab:

- Set the Primary Page Class as the **Work Class**.
- By default, the Page Name is **MyServicePage** keep as it is does not make any change.

The screenshot shows the 'Edit Service File: Customer Service File [Available]' window. The 'Primary page' section has two fields: 'Primary page class' with the value 'RND-Research-Work' (indicated by a red box and arrow labeled '1') and 'Page name' with the value 'MyServicePage' (indicated by a red box and arrow labeled '2'). The 'Processing options' section includes a dropdown for 'Execution mode' set to 'Execute synchronously', a text field for 'Request processor' set to 'Request processor', a text field for 'Maximum size of file to queue (KB)' set to '1', and a text field for 'Requests per queue item' set to '1'.

In Method tab:

- Set the processing method in Processing options as **record at a time**.
- Set the Record terminator in Record layout as "**\n**".
- Set the Data mode in the Data description as **text only**.

FILE LISTENER

Edit Service File: Customer Service File [Available]

ID: FileListenerPackage • CSV • CustomerServiceFile

RS: Research:01-01-01

Delete

Actions ▾

Save

▾

Service

Method

Request

Specifications

History

Processing options

Processing method

record at a time ▾

Record layout

Record terminator

\n

or Record length

Record type identifier

Offset

Length

Data description

Data mode

text only ▾

Character encoding

Default ▾

3

4

5

FILE LISTENER

In Request tab:

- Set the 'Map to' to **Delimited ParseRule**

The screenshot shows the 'Edit Service File: Customer Service File [Available]' interface. The 'Request' tab is selected. In the 'Parse segments' table, the 'Map to' column for the first segment is set to 'Delimited ParseRule'. A red box highlights this dropdown, and a red arrow points to it with the number 6. Another red arrow points to the 'Map to key' column with the number 7.

Record type	Once?	Map to	Map to key	Auth?	Activity	Keep page?
1	<input type="checkbox"/>	Delimited ParseRule		<input type="checkbox"/>		<input type="checkbox"/>

- Create a Map to Key by clicking the crosshair icon.

The screenshot shows the 'Edit Service File: Customer Service File [Available]' interface. The 'Request' tab is selected. In the 'Parse segments' table, the 'Map to key' dropdown for the first segment is set to 'ParseCustDetails'. A red box highlights this dropdown, and a red arrow points to it with the number 8.

Record type	Once?	Map to	Map to key	Auth?	Activity	Keep page?
1	<input type="checkbox"/>	Delimited ParseRule	ParseCustDetails	<input type="checkbox"/>		<input type="checkbox"/>

The screenshot shows the 'Create Parse Delimited' dialog box. The 'Parse Delimited Record Configuration' section has two red boxes: one around the 'Label' field (set to 'ParseCustDetails') with a red arrow and number 8, and another around the 'Record Type' field (set to 'CSV') with a red arrow and number 9. The 'Context' section shows 'RND' selected under 'Cosmos Rules' and 'Pega Platform'.

Label: ParseCustDetails
Identifier: ParseCustDetails Edit

Record Type: CSV

Context: RND (selected), Cosmos Rules, Pega Platform

Apply to: RND-Research-Work
Add to ruleset: Research 01-01-01

- After creating select the field format in Field Description as **Comma-Separated Values (CSV)**.
- Select the Method as use parse details in the Processing method.

FILE LISTENER

- Now Map the properties same as below

Parsing details			
Required	Description	Map to	Map to key
<input type="checkbox"/>	CustNumber	Clipboard	.Customer.CustID
<input type="checkbox"/>	FirstName	Clipboard	.Customer.FirstName
<input type="checkbox"/>	LastName	Clipboard	.Customer.LastName
<input type="checkbox"/>	Address1	Clipboard	.Customer.Address1
<input type="checkbox"/>	Address2	Clipboard	.Customer.Address2
<input type="checkbox"/>	City	Clipboard	.Customer.City
<input type="checkbox"/>	State	Clipboard	.Customer.State
<input type="checkbox"/>	Country	Clipboard	.Customer.Country

Edit Parse Delimited: ParseCustDetails [Available]
Delete
Actions
Save

Parse rules
Specifications
History

Field description
Field format
Comma-Separated Values (CSV)

Processing method
Method
use parse details
☒ Drain remaining data

Parsing details

Required	Description	Map to	Map to key
<input type="checkbox"/>	CustNumber	Clipboard	.Customer.CustID
<input type="checkbox"/>	FirstName	Clipboard	.Customer.FirstName
<input type="checkbox"/>	LastName	Clipboard	.Customer.LastName
<input type="checkbox"/>	Address1	Clipboard	.Customer.Address1
<input type="checkbox"/>	Address2	Clipboard	.Customer.Address2
<input type="checkbox"/>	City	Clipboard	.Customer.City
<input type="checkbox"/>	State	Clipboard	.Customer.State
<input type="checkbox"/>	Country	Clipboard	.Customer.Country

- Now save the Parse Delimited rule.
- Now get back to the Service File rule and refer the Map to key.

Edit Service File: Customer Service File [Available]
Delete

ID: FileListenerPackage • CSV • CustomerServiceFile
RS: Research:01-01-01

Service
Method
Request
Specifications
History

Processing prolog
Initial activity

Parse segments

Record type	Once?	Map to	Map to key	Auth?	Activity	Keep page?
1	<input type="checkbox"/>	Delimited ParseRule	ParseCustDetails.CSV	<input type="checkbox"/>		<input type="checkbox"/>

FILE LISTENER

- Now Create activity by clicking the crosshair icon.

Processing prolog

Initial activity

Parse segments

Record type	Once?	Map to	Map to key	Auth?	Activity	Keep page?
1	<input type="checkbox"/>	Delimited ParseRule	ParseCustDetails.CSV	<input type="checkbox"/>	SaveCustByListener	<input type="checkbox"/>

Processing epilog

Final activity

Checkpoint processing

Frequency

Success criteria

Create Activity

Instead of activities, use flows, data transforms, declarative rules, or case management features whenever possible.

Activity Record Configuration

Type

☒ Activity

☐ Automation

Label *****

SaveCustByListener

Identifier

SaveCustByListener

A short description or title for this record

View additional configuration options

Context

☒ RND

Cosmos Rules

Pega Platform

Apply to *****

RND-Research-Work

View all

Add to ruleset *****

Research

01-01-01

Current work item

Work item to associate

Select...

- Now move to Pages & Classes tab and set the following pages.

Edit Activity: SaveCustByListener [Available]

CL: RND-Research-Work ID: SaveCustByListener RS: Research:01-01-01

This record has 3 severe or moderate warnings (including 3 unjustified) and 1 info warning [Review/Edit](#)

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

Page name	Class
MyServicePage	RND-Research-Work
CustDTPage	RND-Research-Data-Customer

- Now move to the Steps tab and add two steps **Property-Set** and **Obj-Save**

Edit Activity: SaveCustByListener [Available]

CL: RND-Research-Work ID: SaveCustByListener RS: Research:01-01-01

This record has 3 severe or moderate warnings (including 3 unjustified) and 1 info warning [Review/Edit](#)

Steps Parameters Pages & Classes Security Test cases Specifications History

Label	Method	Step page	Description
1.	Property-Set	MyServicePage	Set property values
2.	Obj-Save	CustDTPage	Save record to the database

FILE LISTENER

- Now expand Property-Set and set the **Properties Name** and **Properties Values** same as below.

1. Label Method Step page Description

Method Parameters

PropertiesName	PropertiesValue
CustDTPage.CustID	.Customer.CustID
CustDTPage.FirstName	.Customer.FirstName
CustDTPage.LastName	.Customer.LastName
CustDTPage.Address1	.Customer.Address1
CustDTPage.Address2	.Customer.Address2
CustDTPage.City	.Customer.City
CustDTPage.State	.Customer.State
CustDTPage.Country	.Customer.Country

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- Now expand Obj-Save and select the **WriteNow** check box.

Edit Activity: SaveCustByListener [Available]
CL: RND-Research-Work ID: SaveCustByListener RS: Research: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

1. Label Method Step page Description

2. Label Method Step page Description

Method Parameters

Name	Value
WriteNow	<input checked="" type="checkbox"/>
WithErrors	<input type="checkbox"/>
OnlyIfNew	<input type="checkbox"/>

20

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- Now save the activity and refer to the activity in the Service File rule.

Edit Service File: Customer Service File [Available]
ID: FileListenerPackage • CSV • CustomerServiceFile RS: Research:01-01-01

Service Method Request Specifications History

Processing prolog

Initial activity

Parse segments

Record type	Once?	Map to	Map to key	Auth?	Activity	Keep page?
1	<input type="checkbox"/>	Delimited ParseRule	ParseCustDetails.CSV	<input type="checkbox"/>	SaveCustByListener	<input type="checkbox"/>

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Processing epilog

Final activity

Checkpoint processing

Frequency Success criteria

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- Now save the Service File Rule.

FILE LISTENER

Step6: Now create the File Listener Rule.

Navigation: Records → Integration-Resources → File Listener.

- Set the Startup options in Listener nodes to **Run on all nodes**.

Listener nodes

☐ Block startup

Startup option
Run on all nodes ▼

Reset startup

- Set the Source location and Source name mask same as the below image.

Source properties

Source location ★
C:\FileListener\

Source name mask ★
*.csv

☐ Disable case sensitivity

Note:

- In C:\FileListener\ , 'C:' is the directory of Pega server installation path.
 - *.csv means, file with CSV extension with any name.
- Now select the Service Package, Service class, and Service Method from the dropdown.

Listener properties

Concurrent threads
1

Service package
FileListenerPackage ▼

Service class
CSV ▼

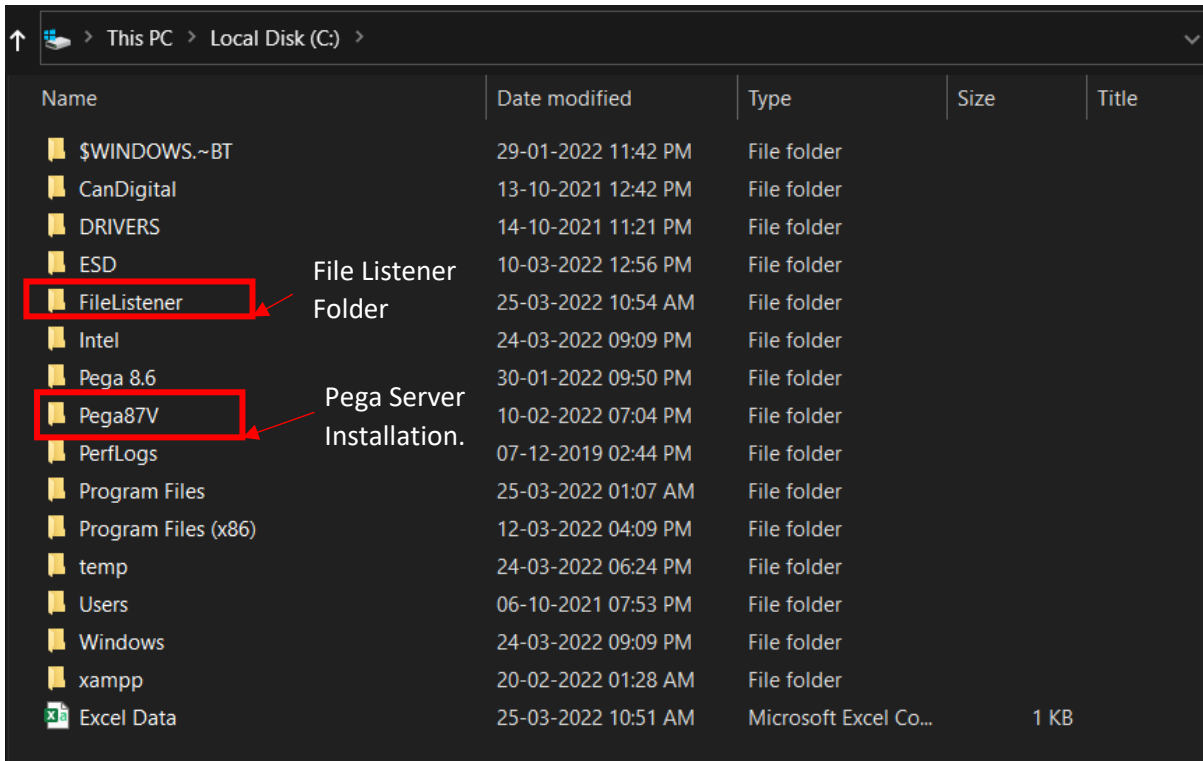
Service method
CustomerServiceFile ▼

Test connectivity

- Now save the File Listener rule.

FILE LISTENER

Step7: Now move to the Pega server installed location in your laptop and create a Folder called **FileListener**.

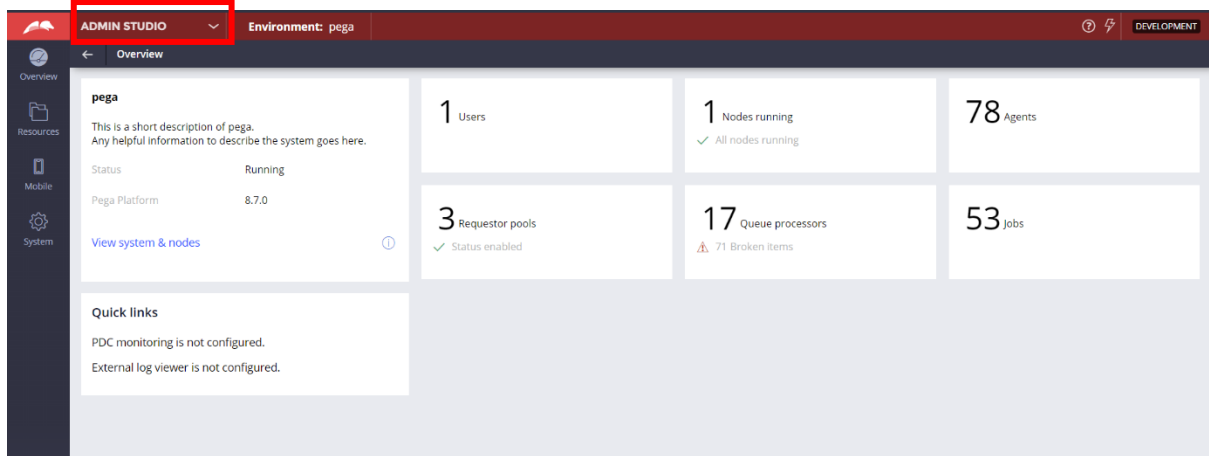


Name	Date modified	Type	Size	Title
\$WINDOWS.~BT	29-01-2022 11:42 PM	File folder		
CanDigital	13-10-2021 12:42 PM	File folder		
DRIVERS	14-10-2021 11:21 PM	File folder		
ESD	10-03-2022 12:56 PM	File folder		
FileListener	25-03-2022 10:54 AM	File folder		
Intel	24-03-2022 09:09 PM	File folder		
Pega 8.6	30-01-2022 09:50 PM	File folder		
Pega87V	10-02-2022 07:04 PM	File folder		
PerfLogs	07-12-2019 02:44 PM	File folder		
Program Files	25-03-2022 01:07 AM	File folder		
Program Files (x86)	12-03-2022 04:09 PM	File folder		
temp	24-03-2022 06:24 PM	File folder		
Users	06-10-2021 07:53 PM	File folder		
Windows	24-03-2022 09:09 PM	File folder		
xampp	20-02-2022 01:28 AM	File folder		
Excel Data	25-03-2022 10:51 AM	Microsoft Excel Co...	1 KB	

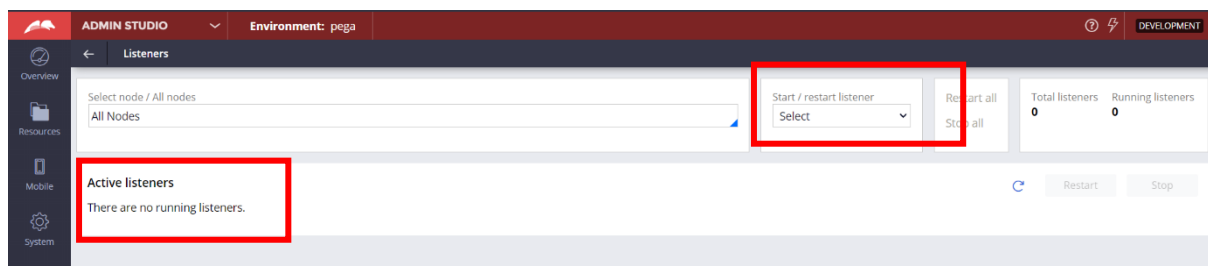
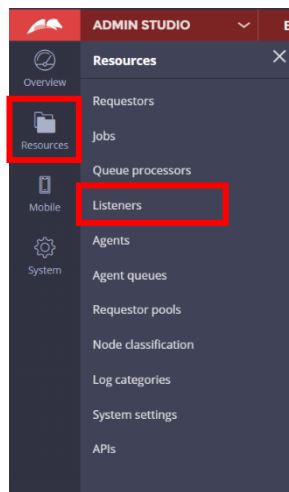
FILE LISTENER

Confirm your work:

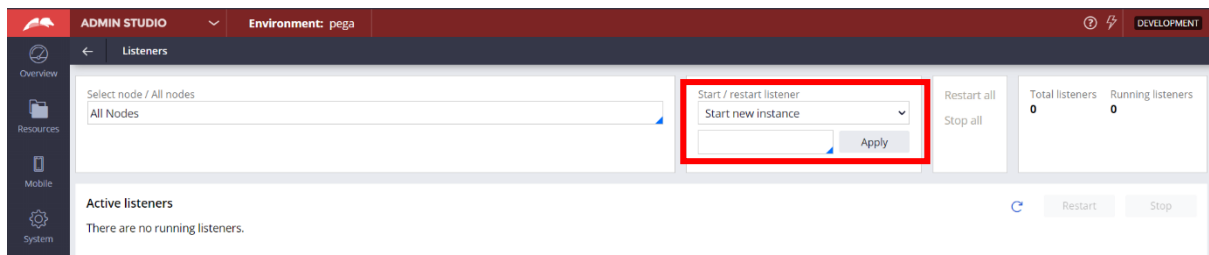
- Now move to Admin Studio and click on Resources.



- Select Listeners from Resources

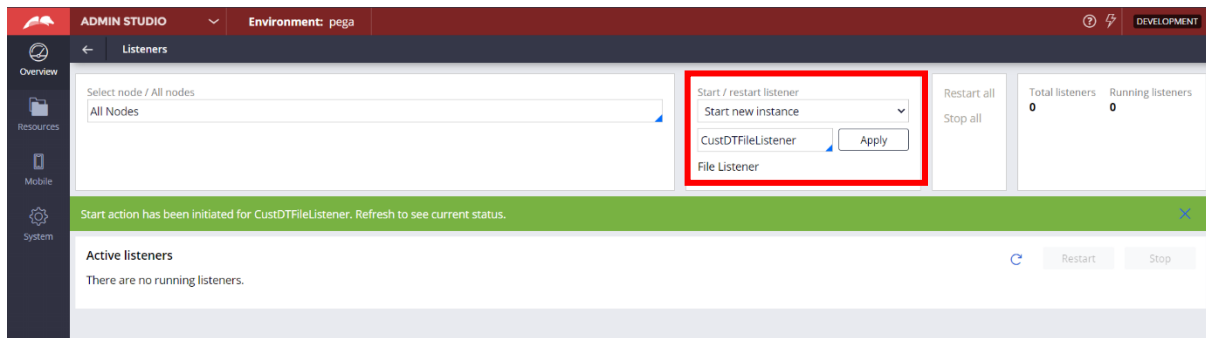


- Initially, no nodes were running.
- Now select Start new instance from a dropdown Start/ restart listener.

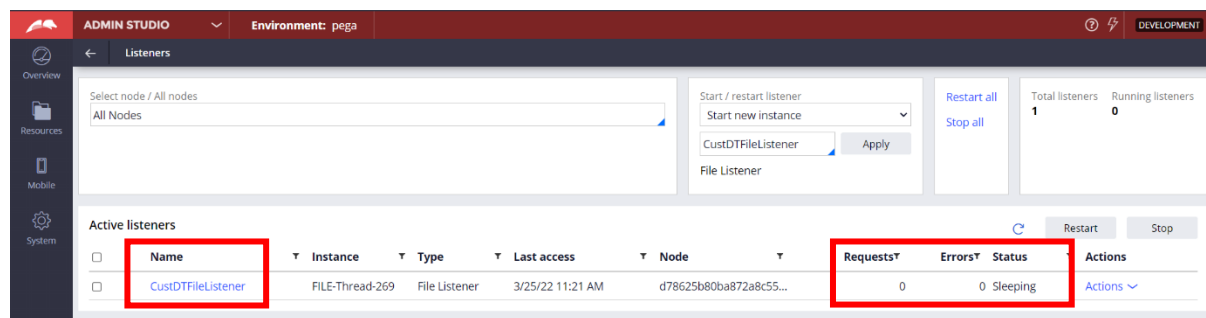
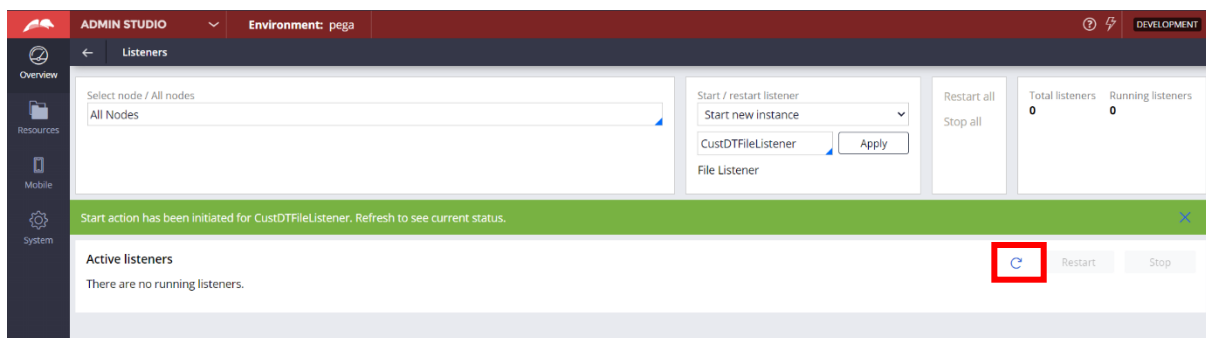


FILE LISTENER

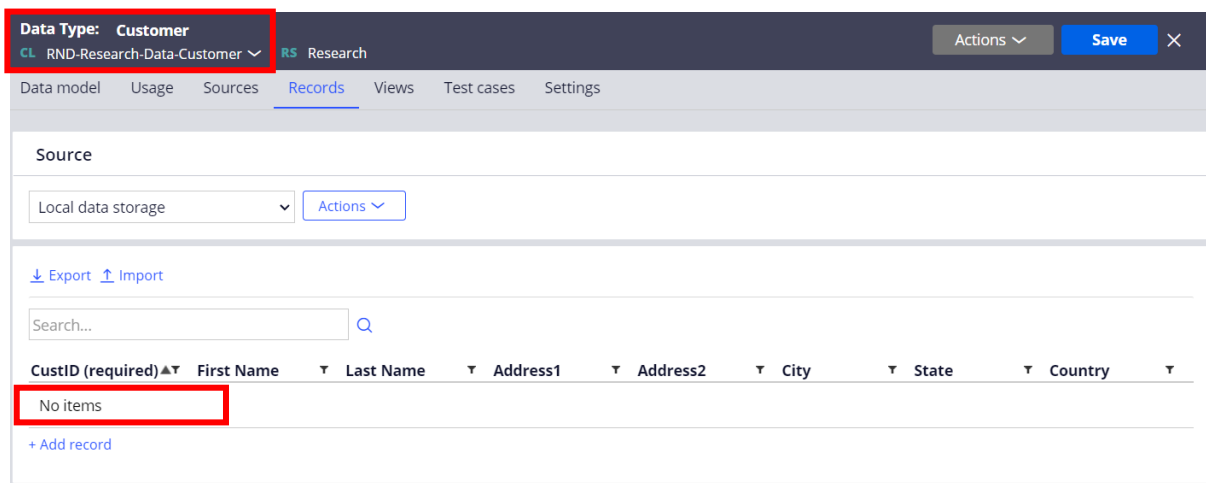
- Now select the file listener from the autocomplete and click on apply.



- Now click on refresh.

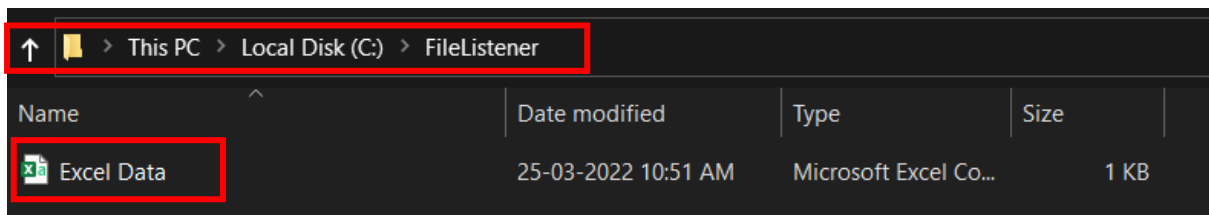


- Now we can see that the file listener status is sleeping and requests or 0.
- Now check the records in data types, we can see that no records were present.



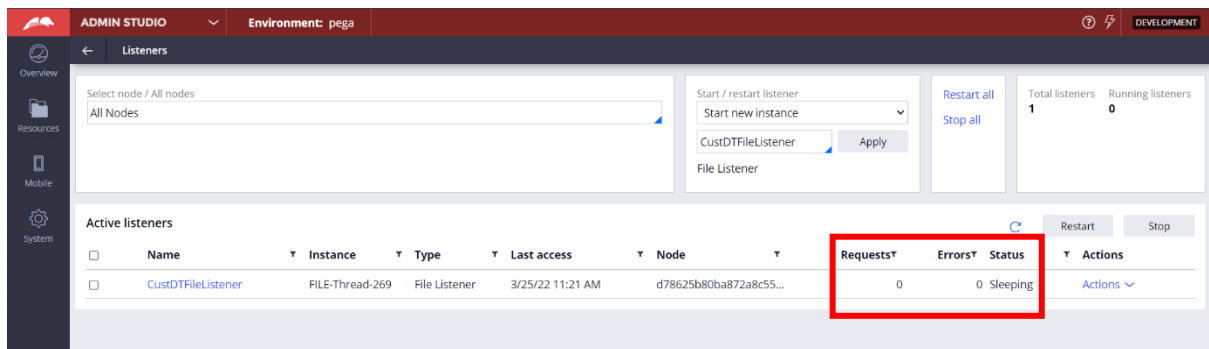
FILE LISTENER

- Now copy and paste the CSV excel file, which was created in Step1, to the FileListener folder.

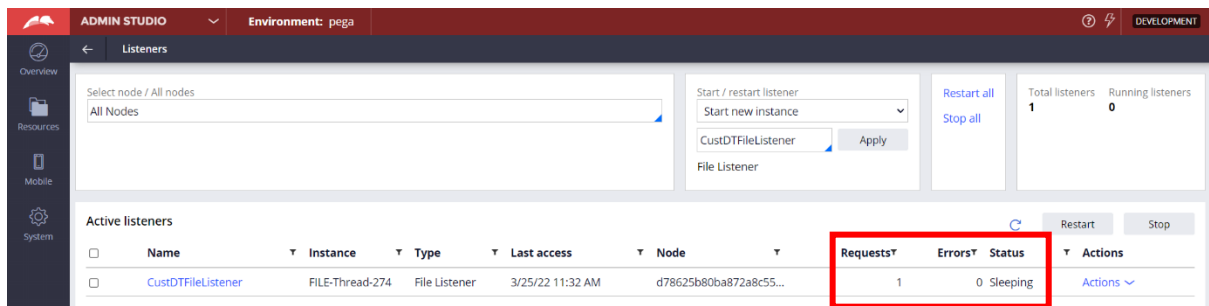


- As the file listener is running in background the operation is completed and data is stored into the data type.
- Now open Admin Studio and refresh the listener

Before:



After:



FILE LISTENER

- Now we can see that number of requests is '1'. So successfully stored the CSV excel file data to Customer data type.

Data Type: Customer

CL RND-Research-Data-Customer

RS Research

Actions

Save

Data model

Usage

Sources

Records

Views

Test cases

Settings

Source

Local data storage

Actions

Export

Import

Search...

CustID (required)	First Name	Last Name	Address1	Address2	City	State	Country	
1	Anantha	Sai	SNP Agraharam	GBC Road	Bapatla	Andhra Pradesh	India	
2	Murali	Krishna	GBC Road	SNP Agraharam	Vijayawada	Andhra Pradesh	India	
3	Gupta	Hema	Nag Center	Baskhar Delex	Guntur	Andhra Pradesh	India	
4	Lakshmi	Kameswari	Baskhar Delex	Nag Center	Guntur	Andhra Pradesh	India	

+ Add record