ITL LAB: EXPERIMENT 8

NAME: Shreya Shetty

UID: 2019140059

CLASS: TE IT

BATCH: D

TOPIC : Mulesoft

AIM: Perform CRUD operations and one additional operation (for example, handling files, sending emails, etc) on your own webservice using Mulesoft.

https://developer.mulesoft.com/tutorials-and-howtos/getting-started/hello-mule/

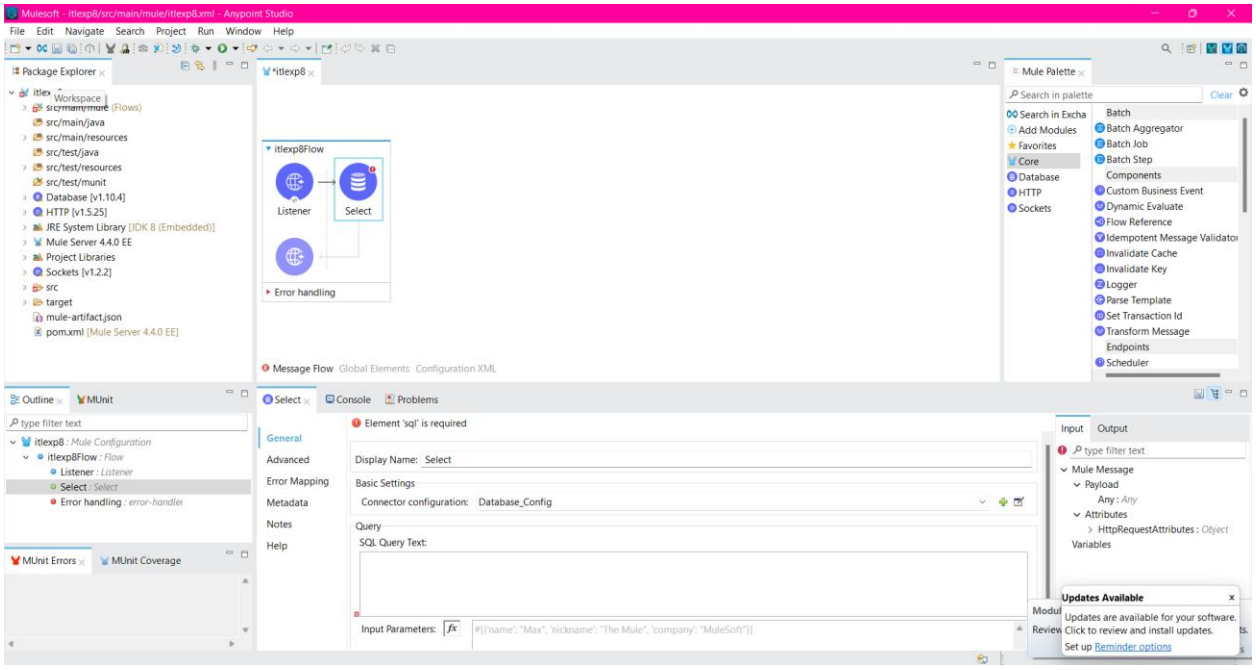
https://www.mulesoft.com/lp/dl/studio

https://www.quora.com/How-does-MuleSoft-work

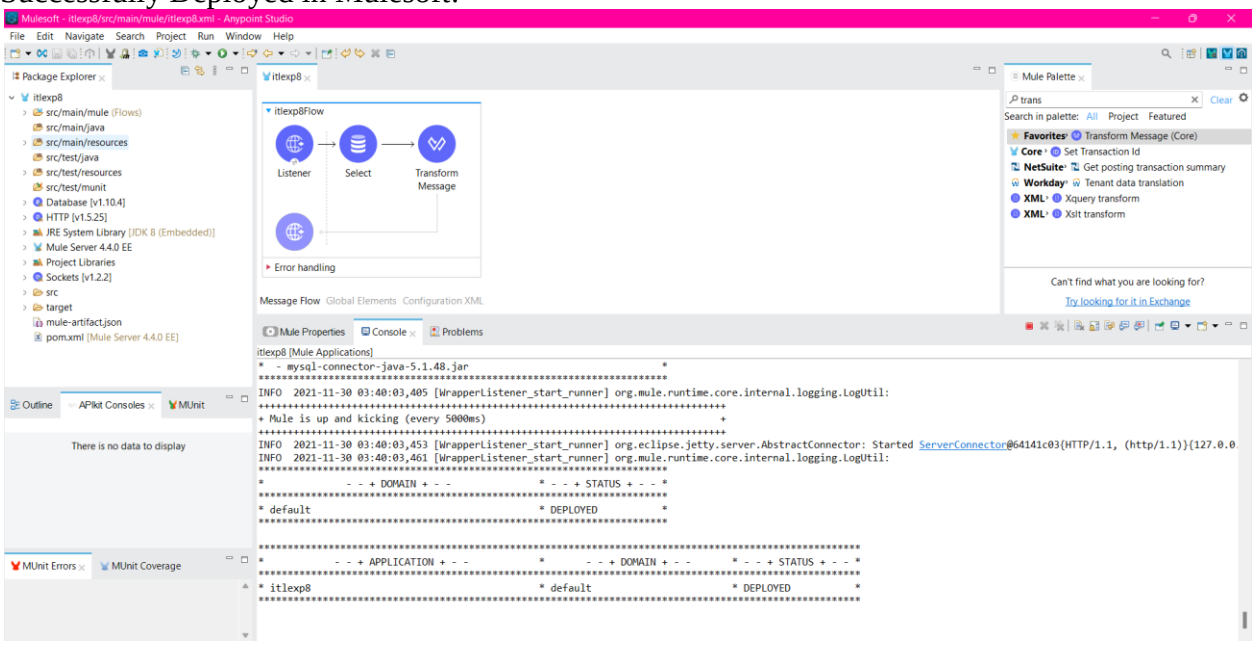
OUTPUT :

Performing CRUD Operations :-

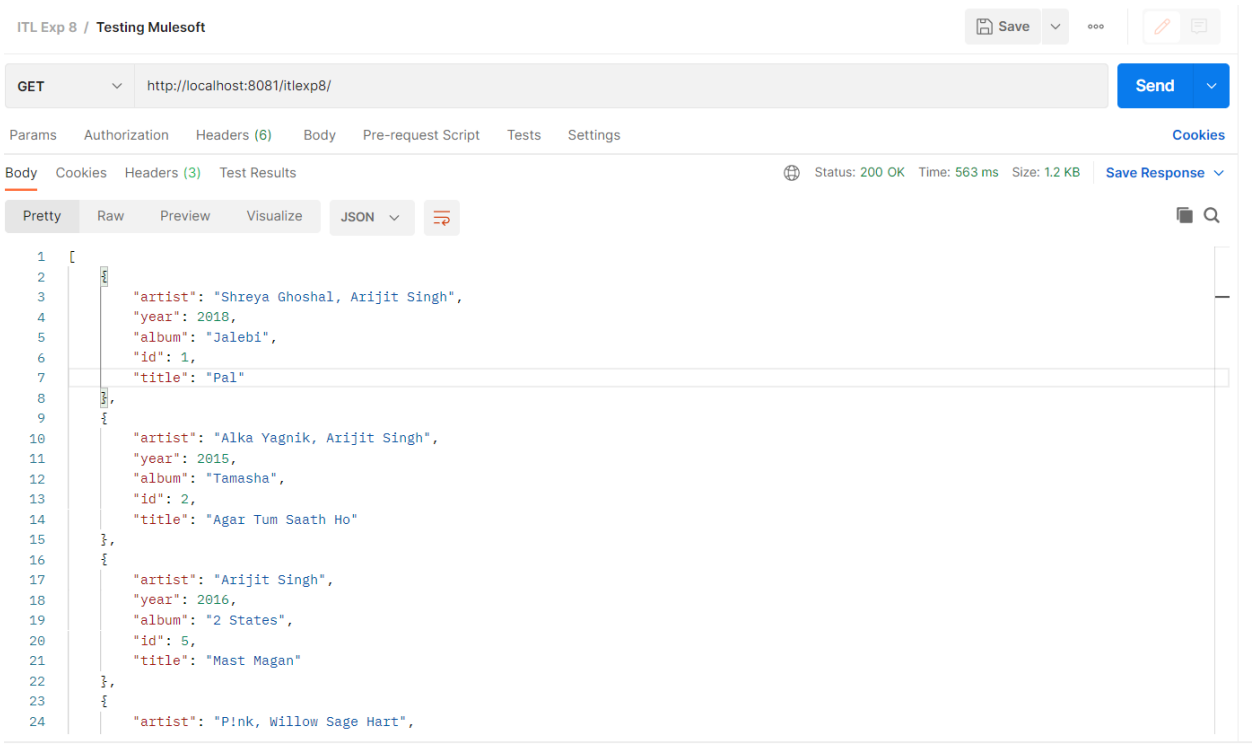
1. Using Select Query in Mulesoft to Get all values from Database :



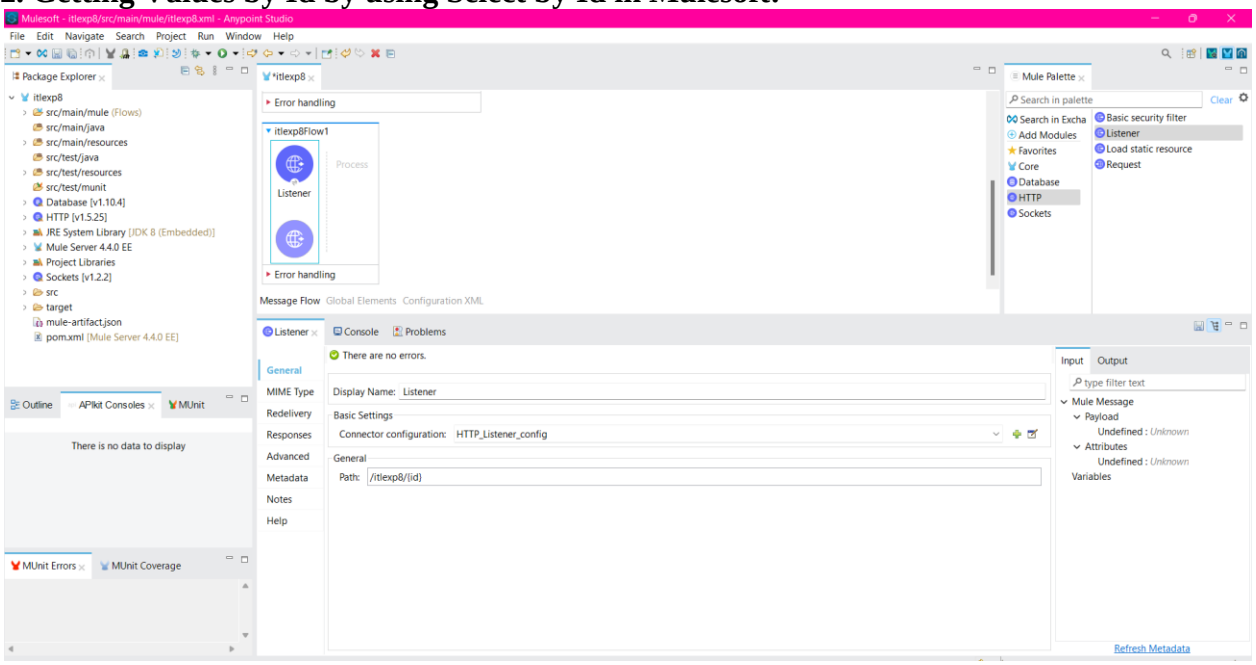
Successfully Deployed in Mulesoft:

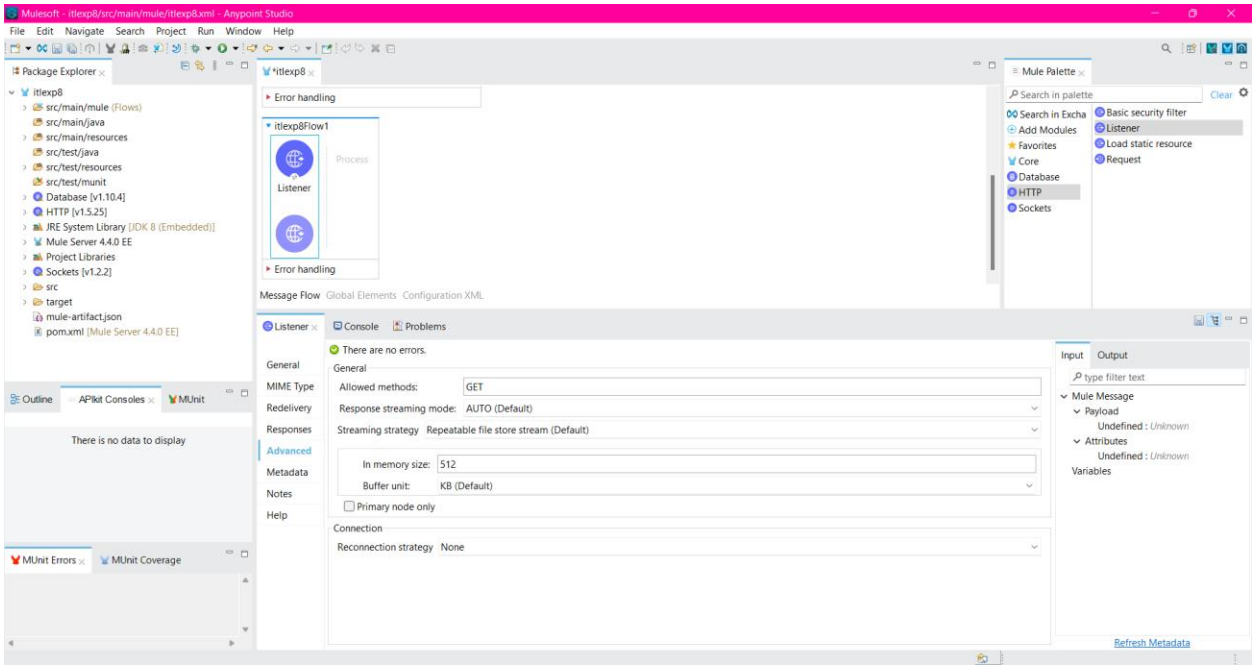


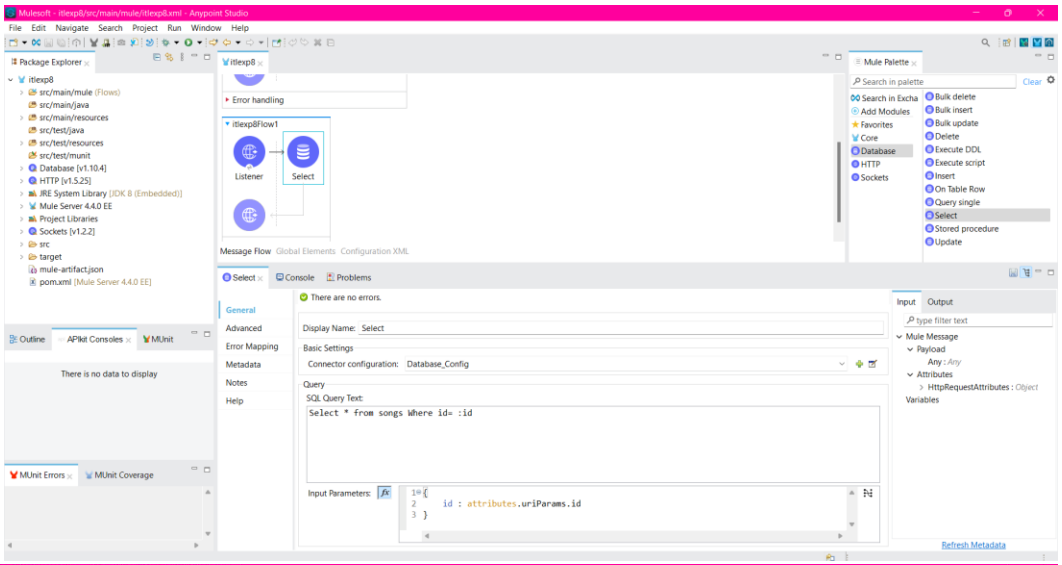
Texting GET in Postman:

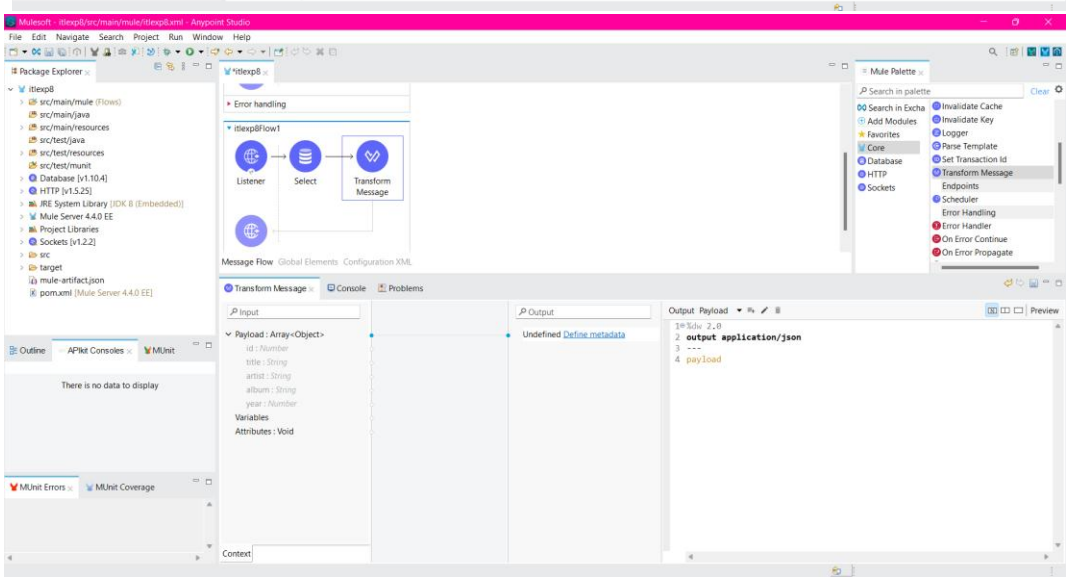


2. Getting Values by Id by using Select by Id in Mulesoft:

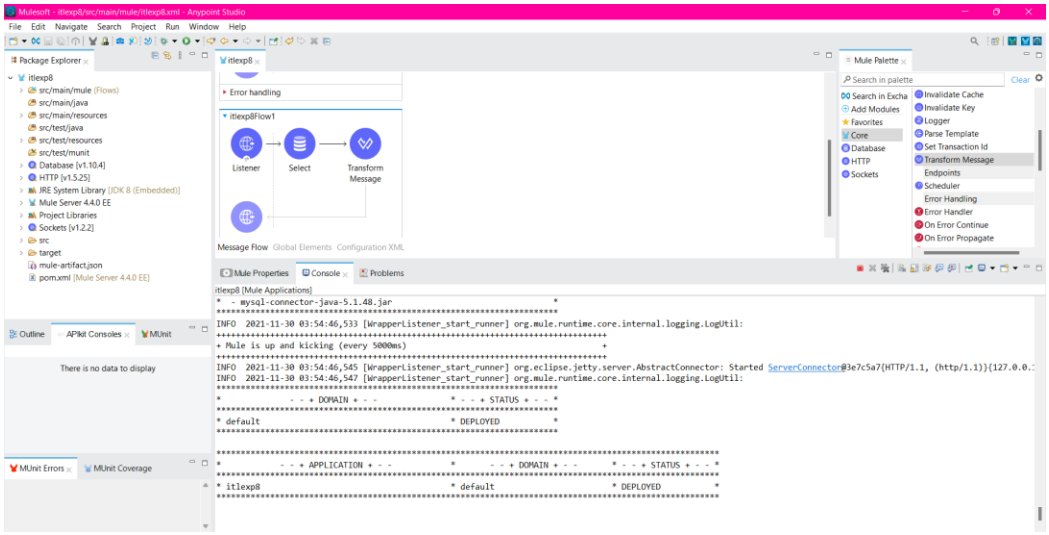




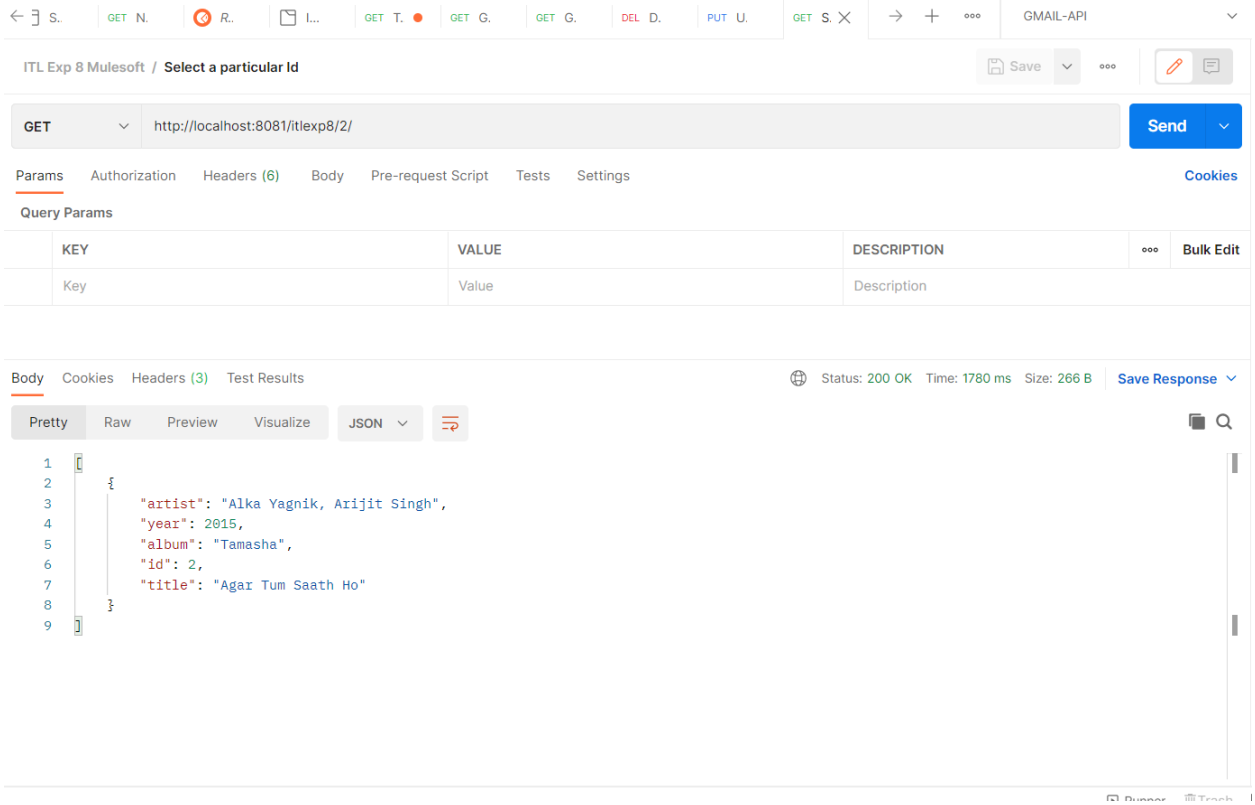




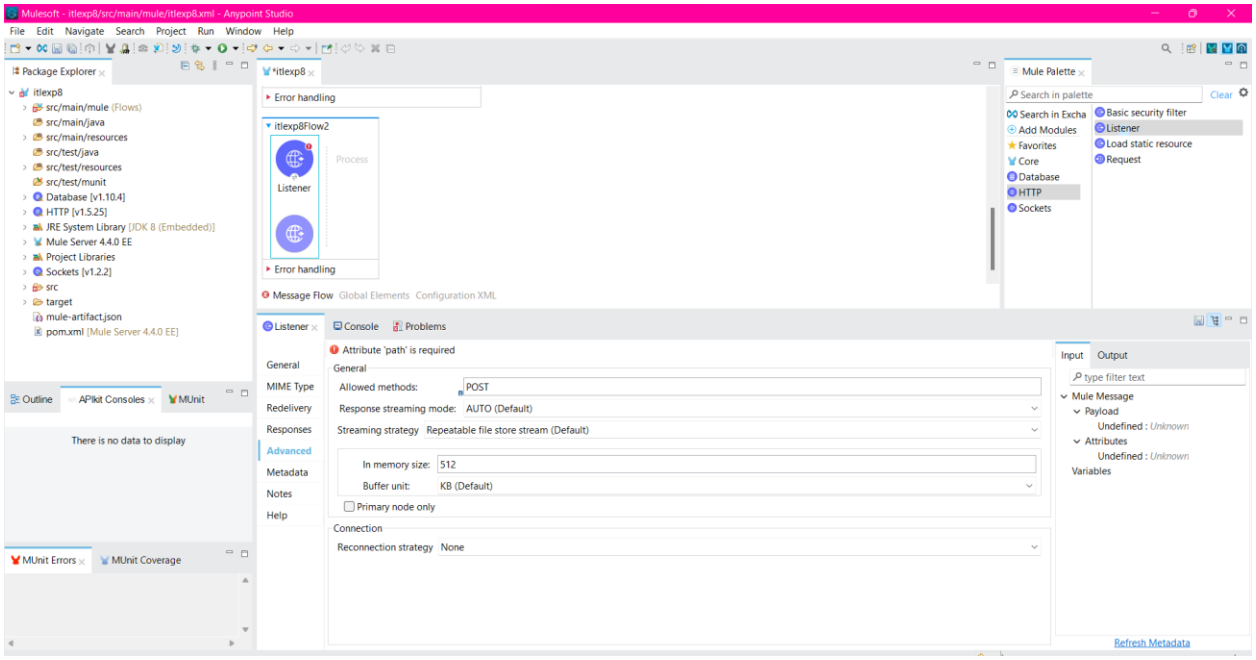
Successfully Deployed in Mulesoft:

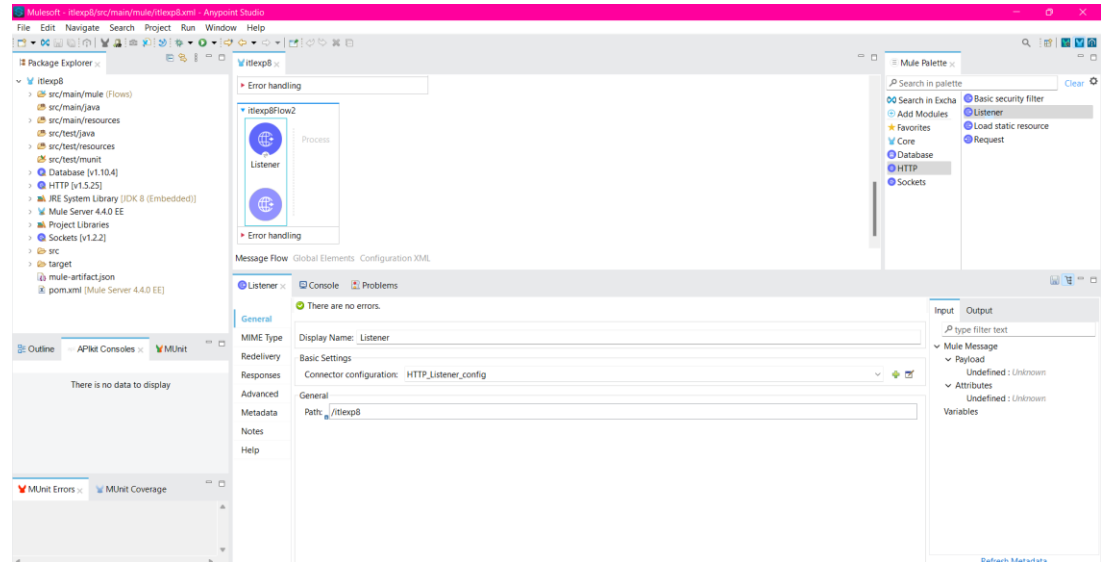


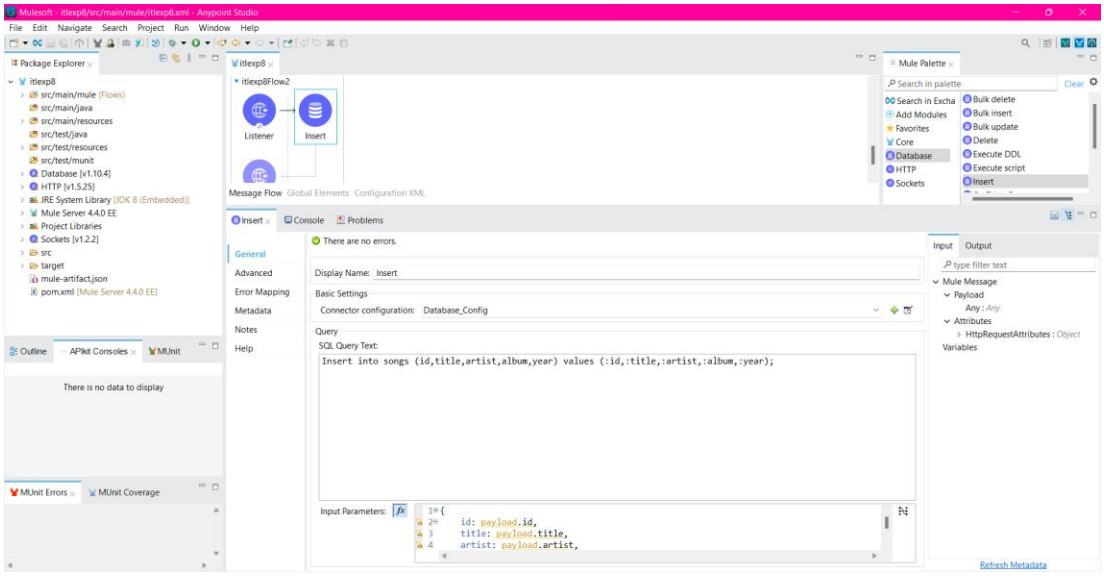
Testing In Postman (GET value by ID)



3. Inserting New values using Mulesoft (POST) :




Mulesoft - itlexp8/src/main/mule/itlexp8.xml - Anypoint Studio
File Edit Navigate Search Project Run Window Help
Package Explorer
itlexp8
src/main/mule (Flows)
src/main/java
src/main/resources
src/test/java
src/test/resources
src/test/munit
Database [v1.10.4]
HTTP [v1.5.25]
JRE System Library [JDK 8 (Embedded)]
Mule Server 4.4.0 EE
Project Libraries
Sockets [v1.2.2]
src
target
mule-artifact.json
pom.xml [Mule Server 4.4.0 EE]
Outline
APIkit Consoles
MUnit
There is no data to display
MUnit Errors
MUnit Coverage
itlexp8
Error handling
itlexp8Flow2
Listener
Process
Error handling
Message Flow Global Elements Configuration XML
Mule Palette
Search in palette
Clear
Search in Excha
Add Modules
Favorites
Core
Database
HTTP
Sockets
Basic security filter
Listener
Load static resource
Request
Listener
Console
Problems
There are no errors.
General
MIME Type
Redelivery
Responses
Advanced
Metadata
Notes
Help
Display Name: Listener
Basic Settings
Connector configuration: HTTP_Listener_config
General
Path: /itlexp8
Input
Output
type filter text
Mule Message
Payload
Undefined : Unknown
Attributes
Undefined : Unknown
Variables


Mulesoft - itlexp8/src/main/mule/itlexp8.xml - Anypoint Studio
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Package Explorer
itlexp8
src/main/mule (Flows)
src/main/java
src/main/resources
src/test/java
src/test/resources
src/test/munit
Database [v1.10.4]
HTTP [v1.5.25]
JRE System Library [JDK 8 (Embedded)]
Mule Server 4.4.0 EE
Project Libraries
Sockets [v1.2.2]
src
target
mule-artifact.json
pom.xml [Mule Server 4.4.0 EE]
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APIkit Consoles
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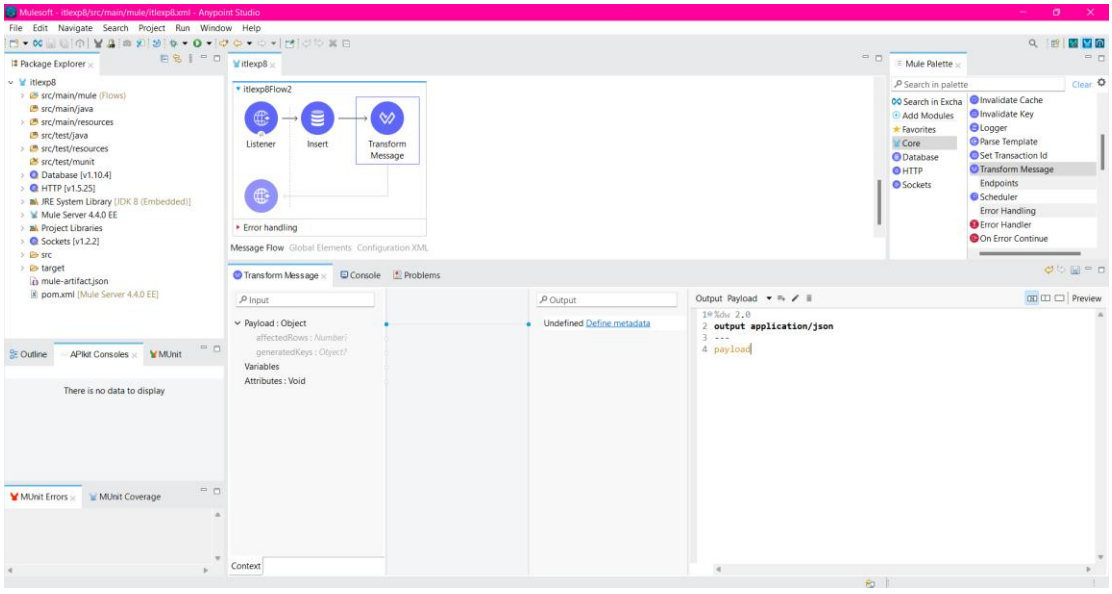
MUnit Errors
MUnit Coverage
itlexp8
itlexp8Flow2
Listener
Insert
Message Flow Global Elements Configuration XML
Mule Palette
Search in palette
Clear
Search in Excha
Add Modules
Favorites
Core
Database
HTTP
Sockets
Bulk delete
Bulk insert
Bulk update
Delete
Execute DDL
Execute script
Insert
Insert
Console
Problems
There are no errors.
General
Advanced
Error Mapping
Metadata
Notes
Help
Display Name: Insert
Basic Settings
Connector configuration: Database_Config
Query
SQL Query Text:
Insert into songs (id,title,artist,album,year) values (:id,:title,:artist,:album,:year);
Input Parameters:
{
id: payload.id,
title: payload.title,
artist: payload.artist,
Input
Output
type filter text
Mule Message
Payload
Any : Any
Attributes
HttpRequestAttributes : Object
Variables
Refresh Metadata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src/test/resources
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Sockets [v1.2.2]
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MUnit
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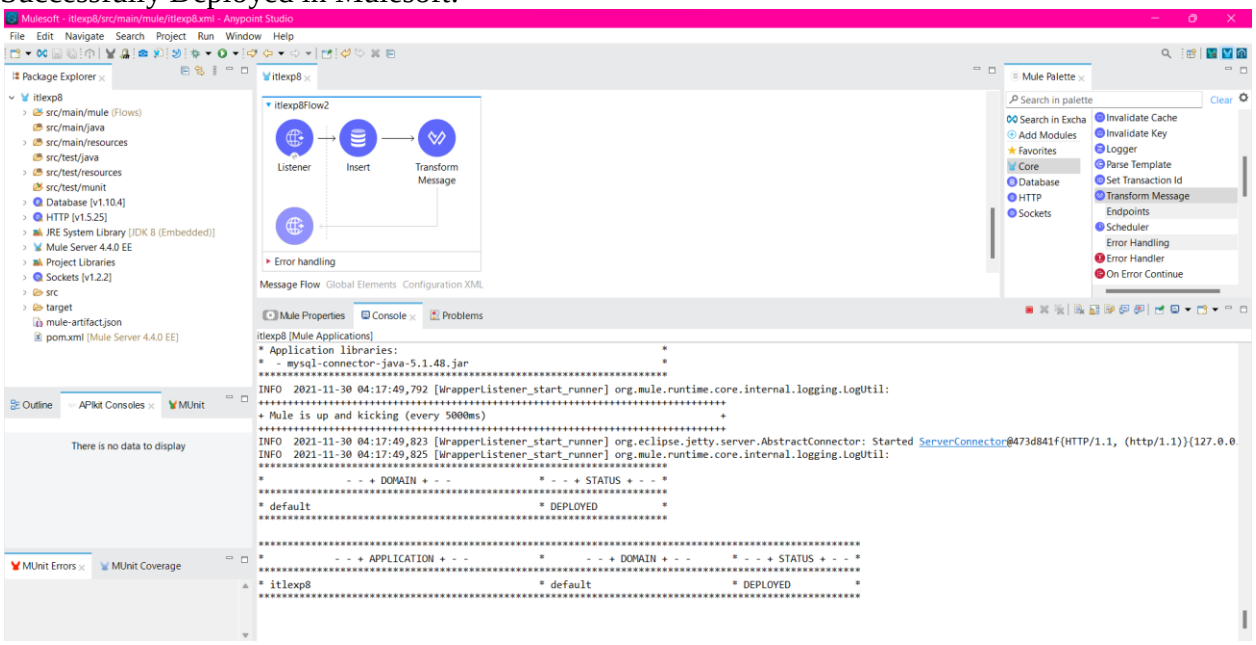
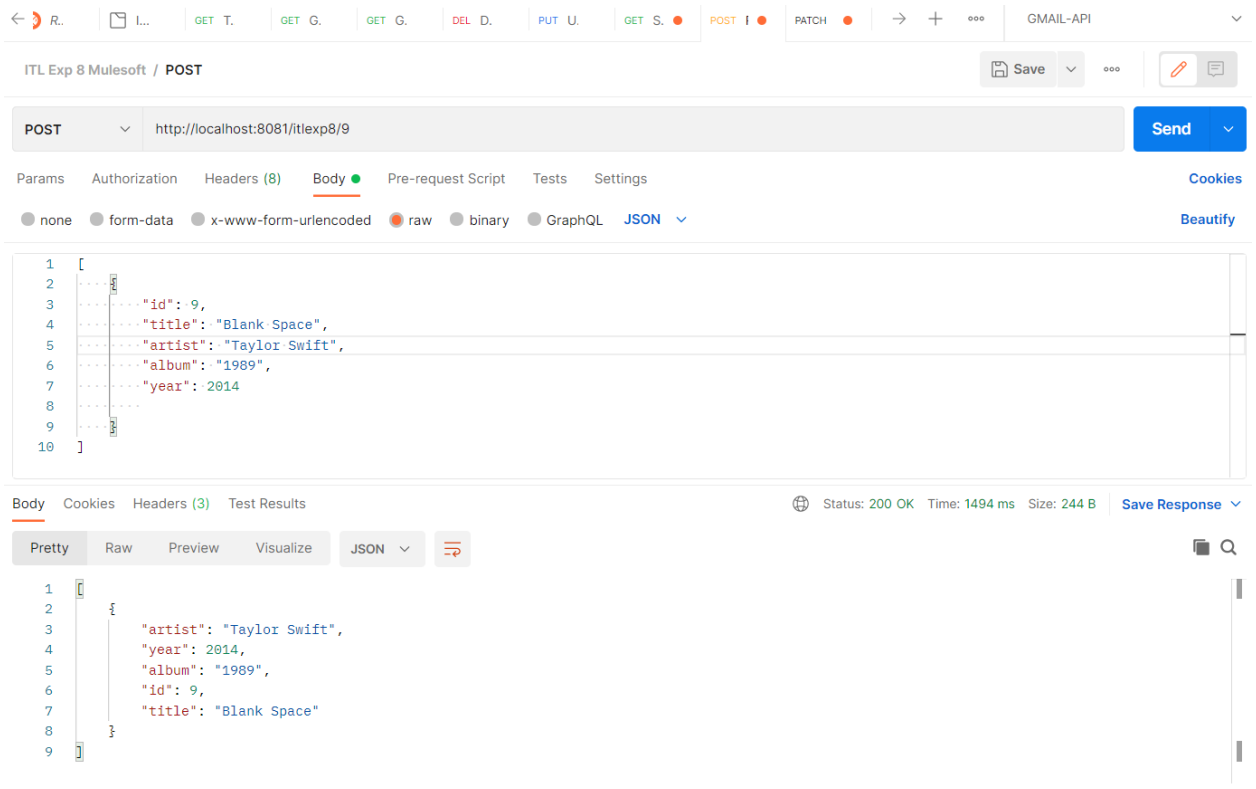
MUnit Errors
MUnit Coverage
itlexp8
itlexp8Flow2
Listener
Insert
Transform Message
Error handling
Message Flow Global Elements Configuration XML
Mule Palette
Search in palette
Clear
Search in Excha
Add Modules
Favorites
Core
Database
HTTP
Sockets
Invalidate Cache
Invalidate Key
Logger
Parse Template
Set Transaction Id
Transform Message
Endpoints
Scheduler
Error Handling
Error Handler
On Error Continue
Transform Message
Console
Problems
Input
Payload : Object
affectedRows : Number
generatedKeys : Object?
Variables
Attributes : Void
Output
Undefined Define metadata
Output Payload
Preview
%dw 2.0
output application/json
---
payload
Context

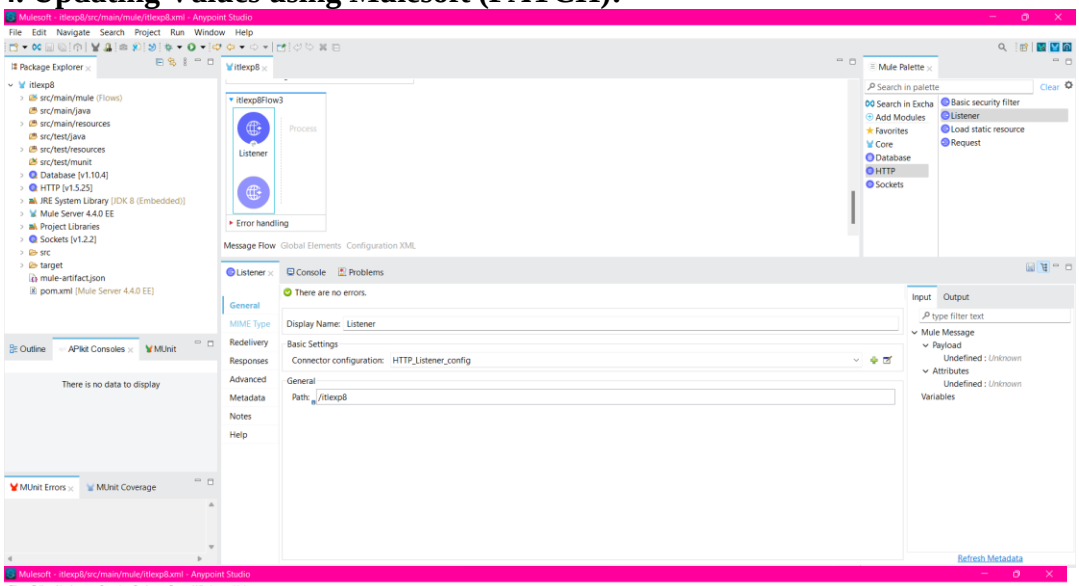
Successfully Deployed in Mulesoft:

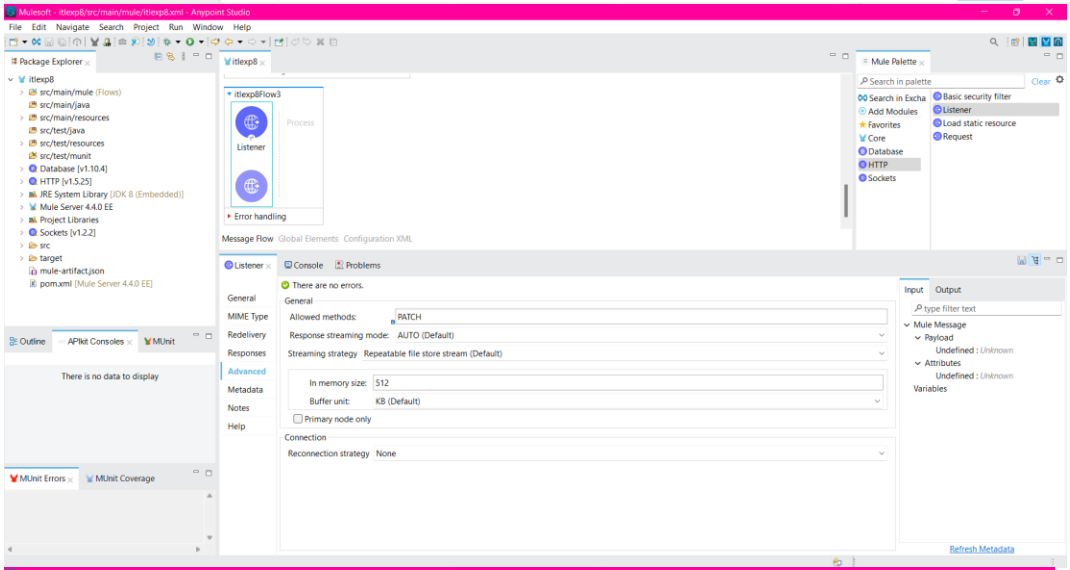


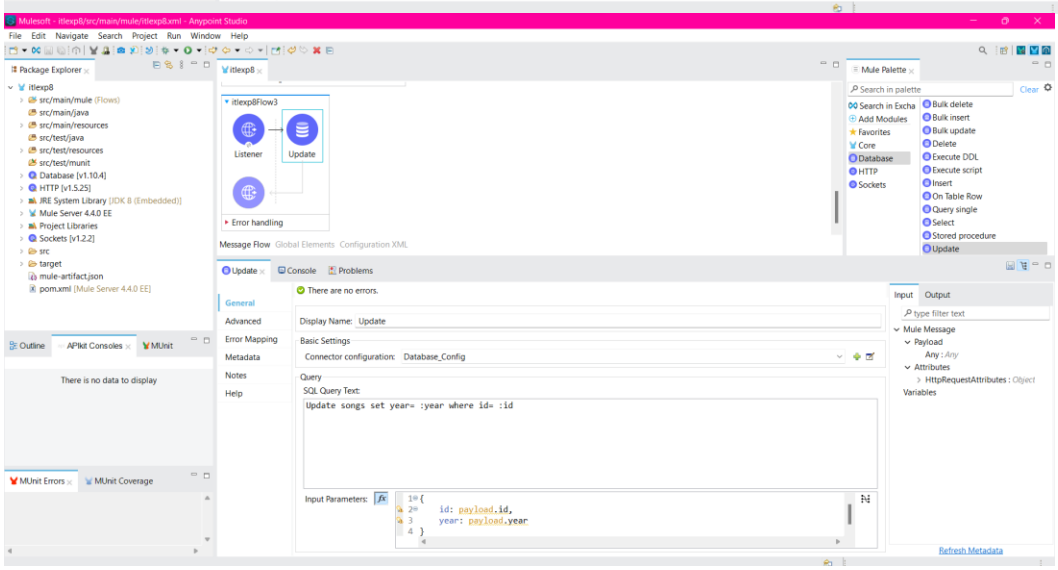
Testing in Postman :

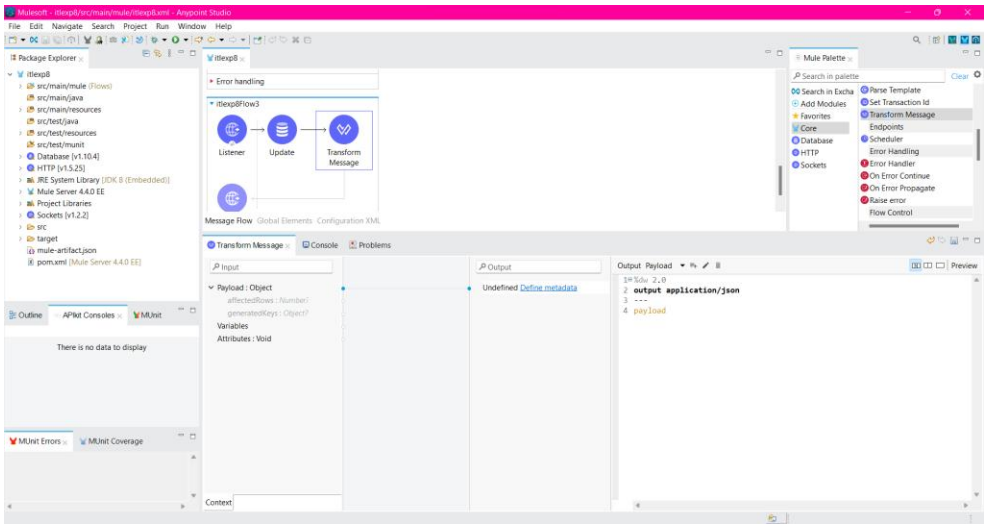


4. Updating Values using Mulesoft (PATCH):

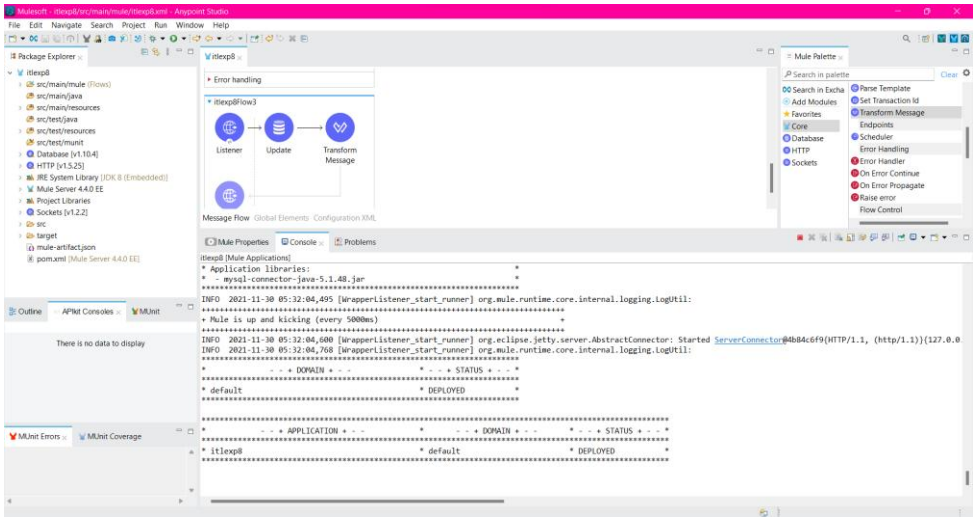




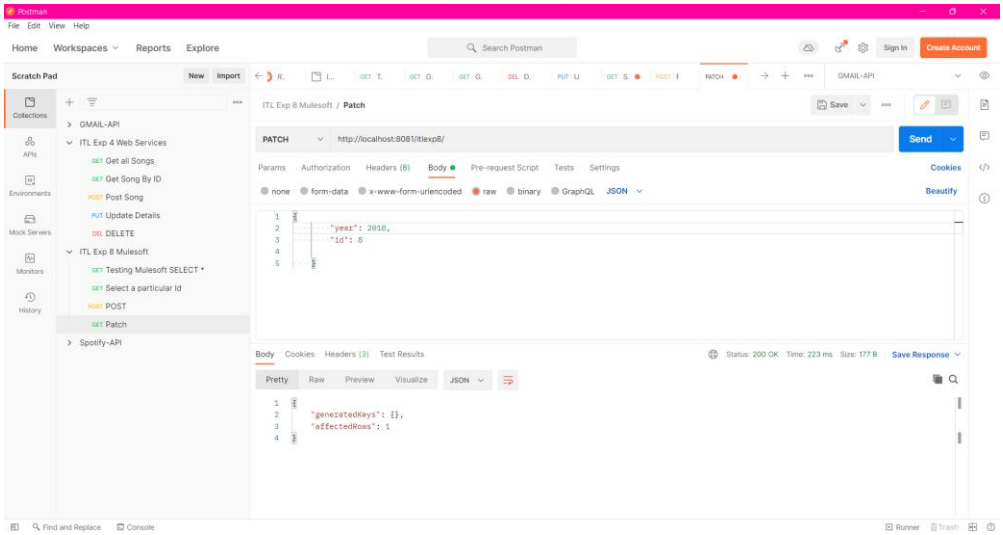




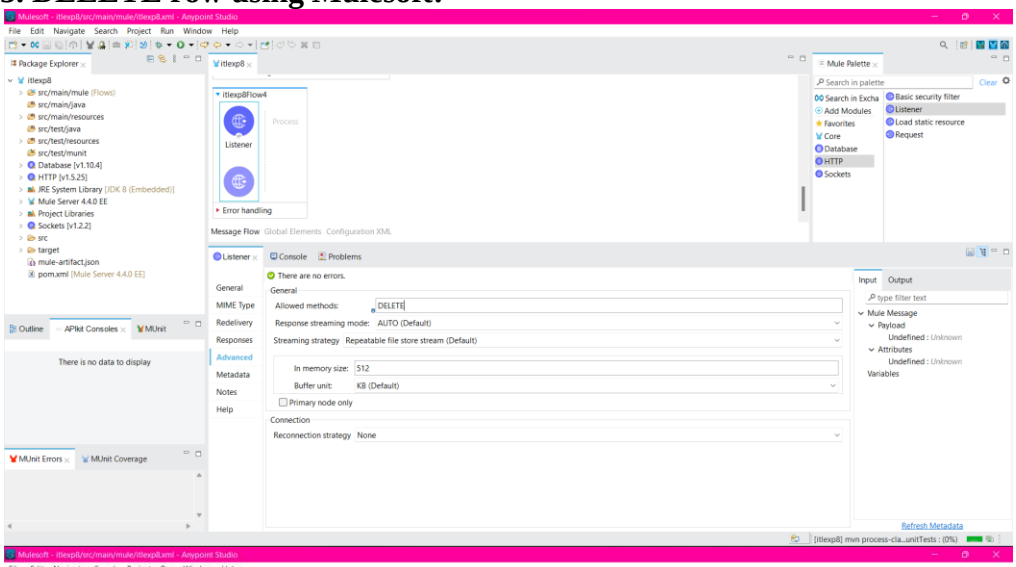
Successfully Deployed in Mulesoft :

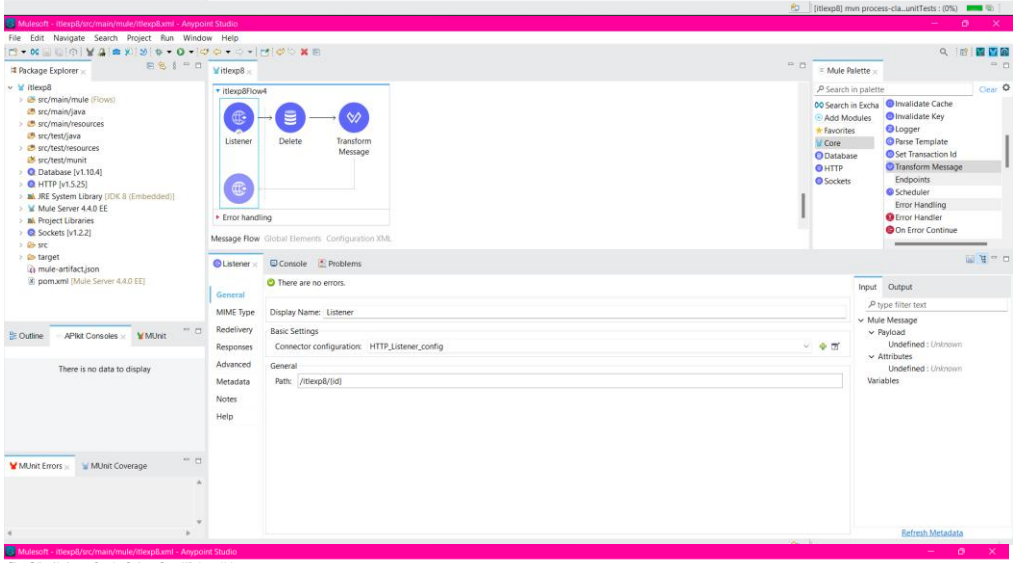


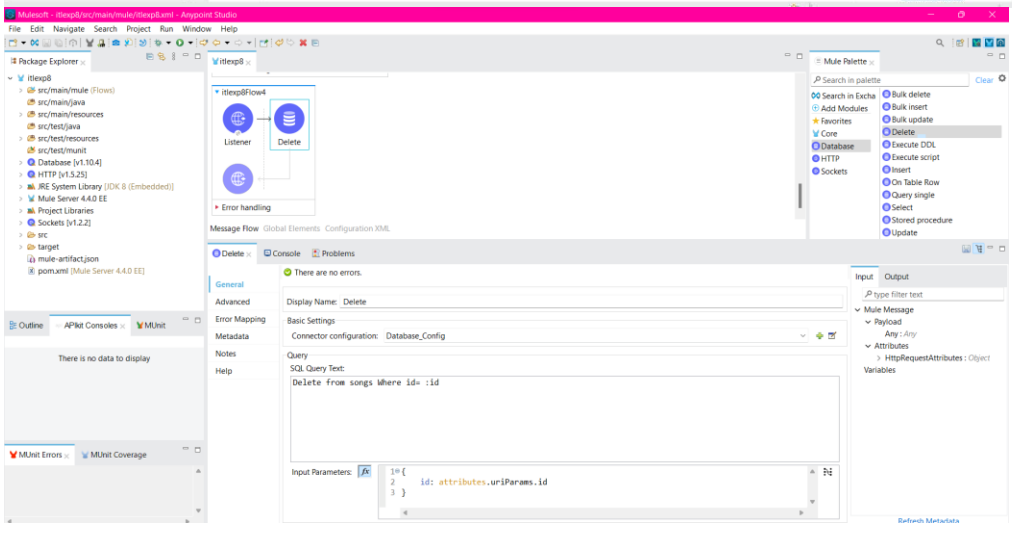
Testing In Postman:

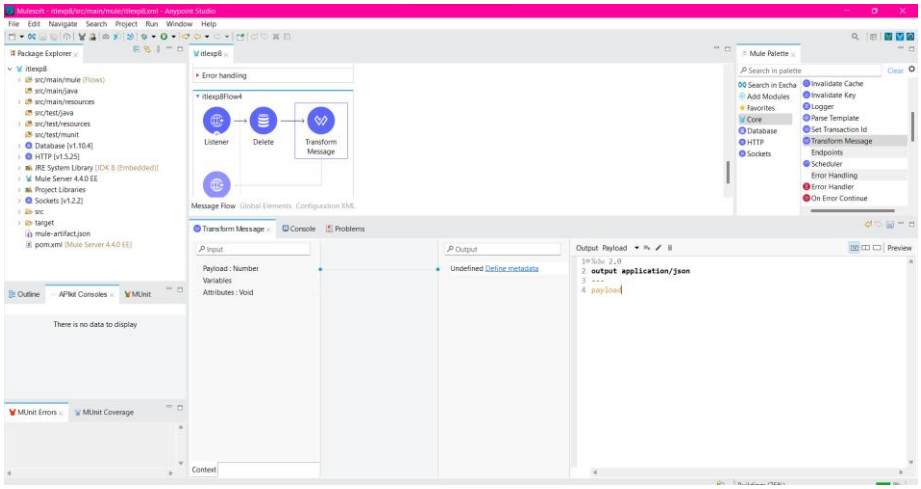


5. DELETE row using Mulesoft:

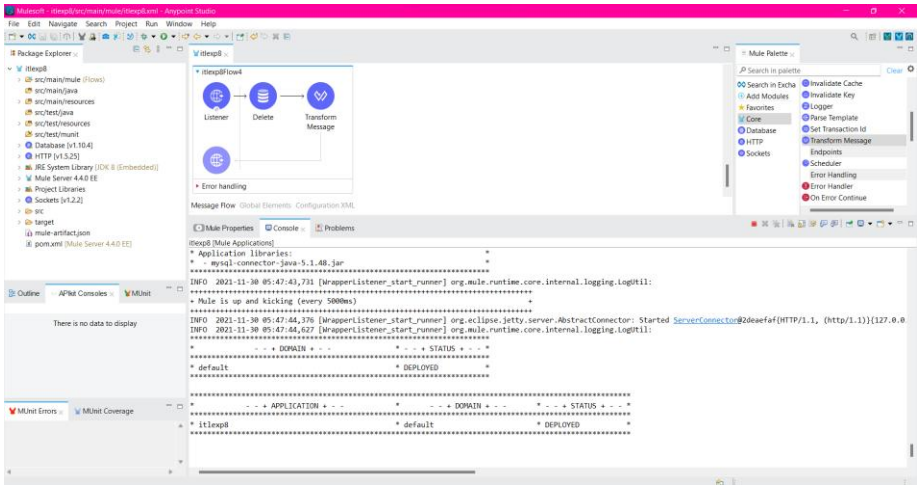




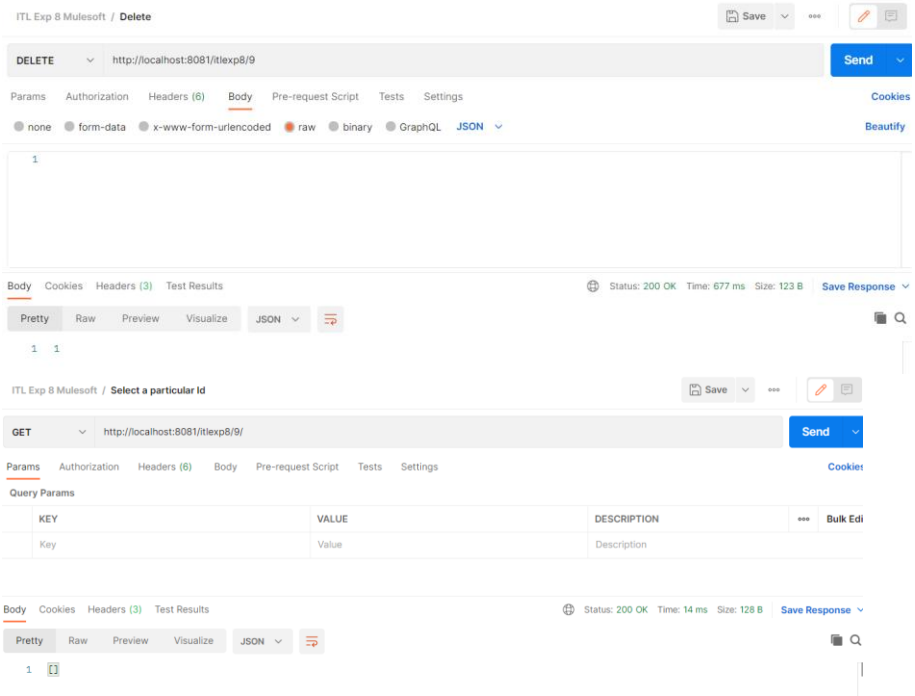




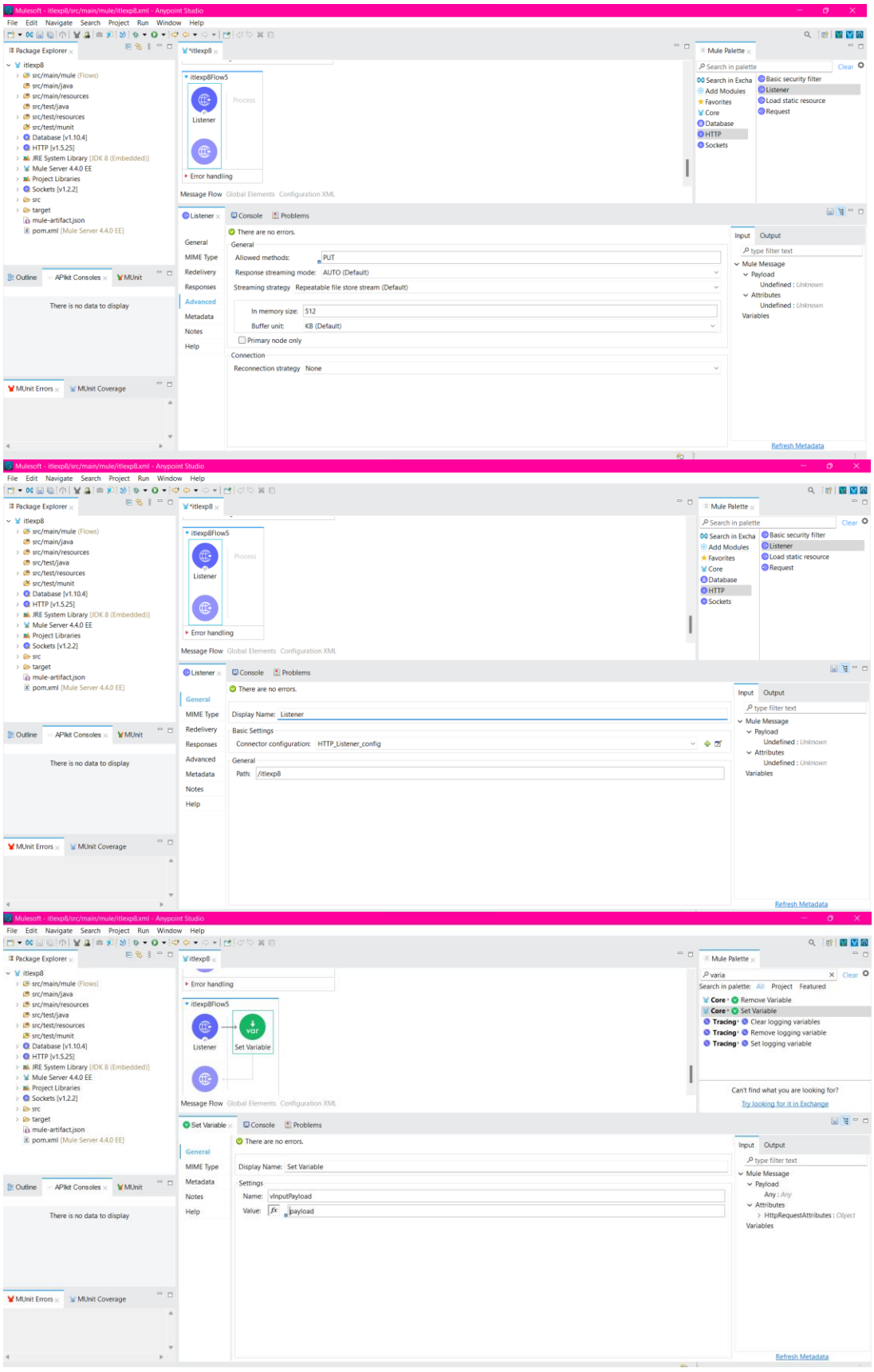
Successfully Deployed in Mulesoft:

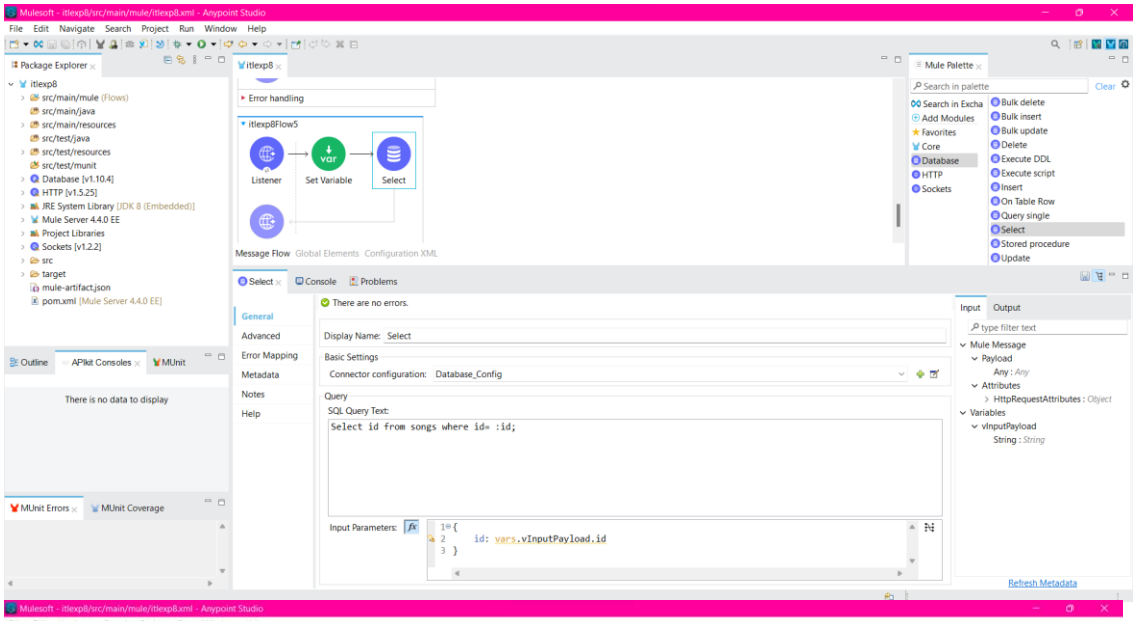


Testing in Postman (Succesfully Deleted and hence shows empty set in GET for id=9) :



6. Using PUT to update/add values :

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Sockets [v1.2.2]
src
target
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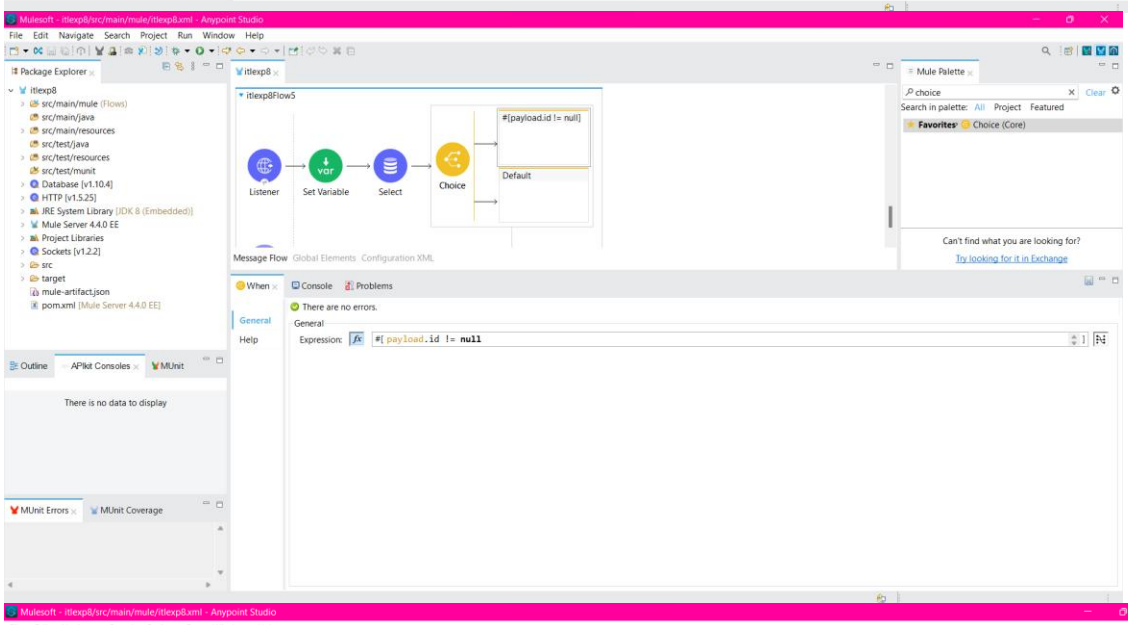
pom.xml [Mule Server 4.4.0 EE]
itlexp8
Error handling
itlexp8Flow5
Listener
Set Variable
Select
Message Flow Global Elements Configuration XML
Mule Palette
Search in palette
Clear
Search in Excha
Add Modules
Favorites
Core
Database
HTTP
Sockets
Bulk delete
Bulk insert
Bulk update
Delete
Execute DDL
Execute script
Insert
On Table Row
Query single
Select
Stored procedure
Update
Select
Console
Problems
There are no errors.
General
Advanced
Error Mapping
Metadata
Notes
Help
Display Name: Select
Basic Settings
Connector configuration: Database_Config
Query
SQL Query Text:
Select id from songs where id= :id;
Input Parameters:
1 {
2 id: vars.vInputPayload.id
3 }
Input
Output
type filter text
Mule Message
Payload
Any : Any
Attributes
HttpRequestAttributes : Object
Variables
vInputPayload
String : String
Refresh Metadata
Outline
APIkit Consoles
MUnit
There is no data to display
MUnit Errors
MUnit Coverage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src/test/munit
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HTTP [v1.5.25]
JRE System Library [JDK 8 (Embedded)]
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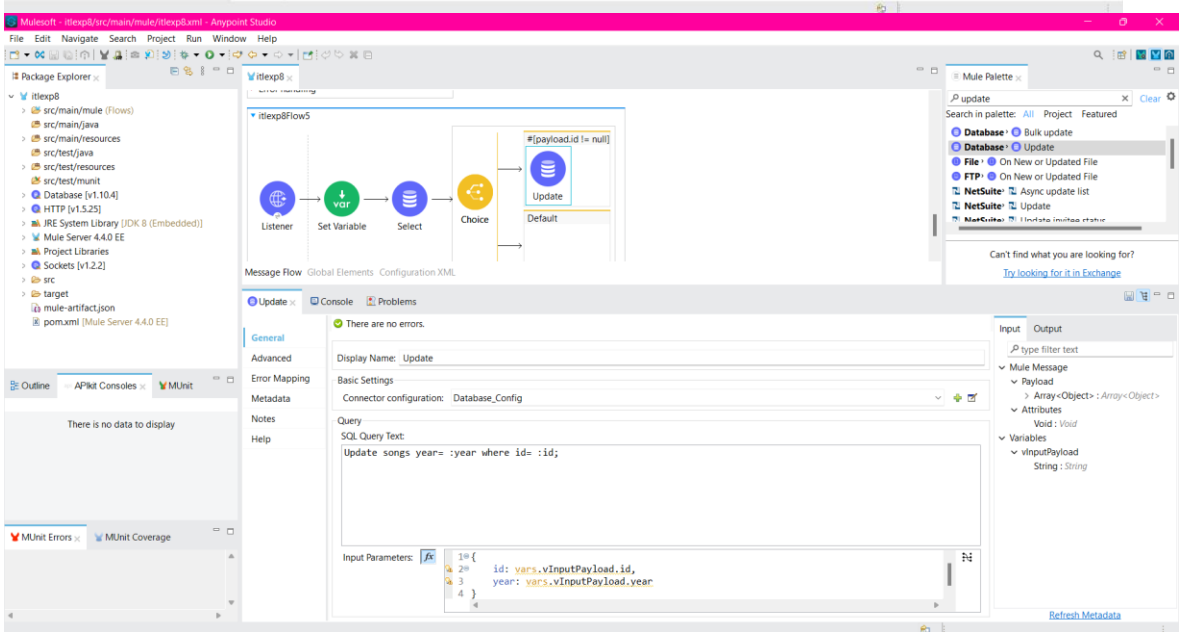
Project Libraries
Sockets [v1.2.2]
src
target
mule-artifact.json
pom.xml [Mule Server 4.4.0 EE]
itlexp8
itlexp8Flow5
Listener
Set Variable
Select
Choice
#[payload.id != null]
Default
Message Flow Global Elements Configuration XML
Mule Palette
choice
Clear
Search in palette: All Project Featured
Favorites
Choice (Core)
Can't find what you are looking for?
Try looking for it in Exchange
When
Console
Problems
There are no errors.
General
Help
Expression:
#[payload.id != null
Outline
APIkit Consoles
MUnit
There is no data to display
MUnit Errors
MUnit Coverage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pom.xml [Mule Server 4.4.0 EE]
itlexp8
itlexp8Flow5
Listener
Set Variable
Select
Choice
#[payload.id != null]
Update
Default
Message Flow Global Elements Configuration XML
Mule Palette
update
Clear
Search in palette: All Project Featured
Database
Bulk update
Database
Update
File
On New or Updated File
FTP
On New or Updated File
NetSuite
Async update list
NetSuite
Update
Can't find what you are looking for?
Try looking for it in Exchange
Update
Console
Problems
There are no errors.
General
Advanced
Error Mapping
Metadata
Notes
Help
Display Name: Update
Basic Settings
Connector configuration: Database_Config
Query
SQL Query Text:
Update songs year= :year where id= :id;
Input Parameters:
1 {
2 id: vars.vInputPayload.id,
3 year: vars.vInputPayload.year
4 }
Input
Output
type filter text
Mule Message
Payload
Array<Object> : Array<Object>
Attributes
Void : Void
Variables
vInputPayload
String : String
Refresh Metadata
Outline
APIkit Consoles
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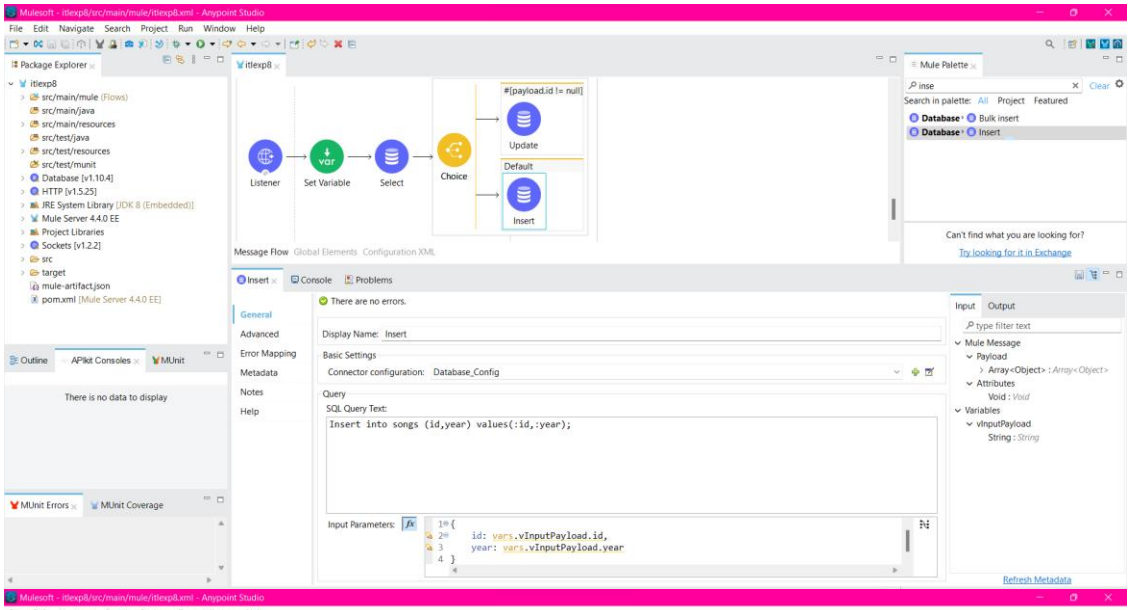
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src
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pom.xml [Mule Server 4.4.0 EE]
itlexp8
#[payload.id != null]
Listener
Set Variable
Select
Choice
Update
Default
Insert
Message Flow Global Elements Configuration XML
Mule Palette
inse
Search in palette: All Project Featured
Database Bulk insert
Database Insert
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Insert
Console
Problems
There are no errors.
General
Advanced
Error Mapping
Metadata
Notes
Help
Display Name: Insert
Basic Settings
Connector configuration: Database_Config
Query
SQL Query Text:
Insert into songs (id,year) values(:id,:year);
Input Parameters:
{
id: vars.vInputPayload.id,
year: vars.vInputPayload.year
}
Input
Output
type filter text
Mule Message
Payload
Array<Object> : Array<Object>
Attributes
Void : Void
Variables
vInputPayload
String : String
Refresh Metadata
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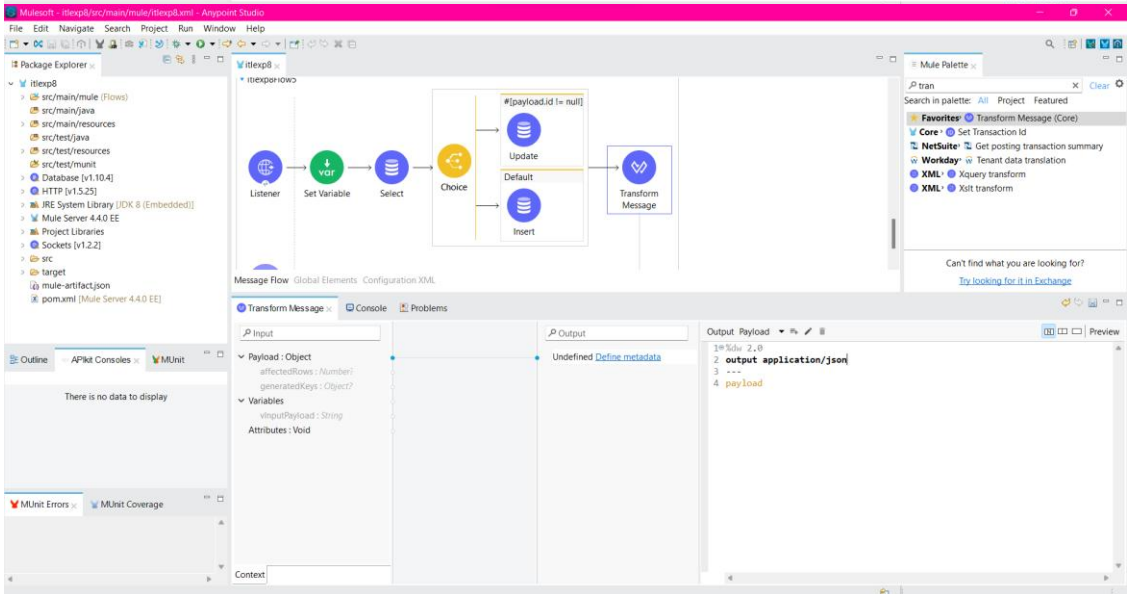
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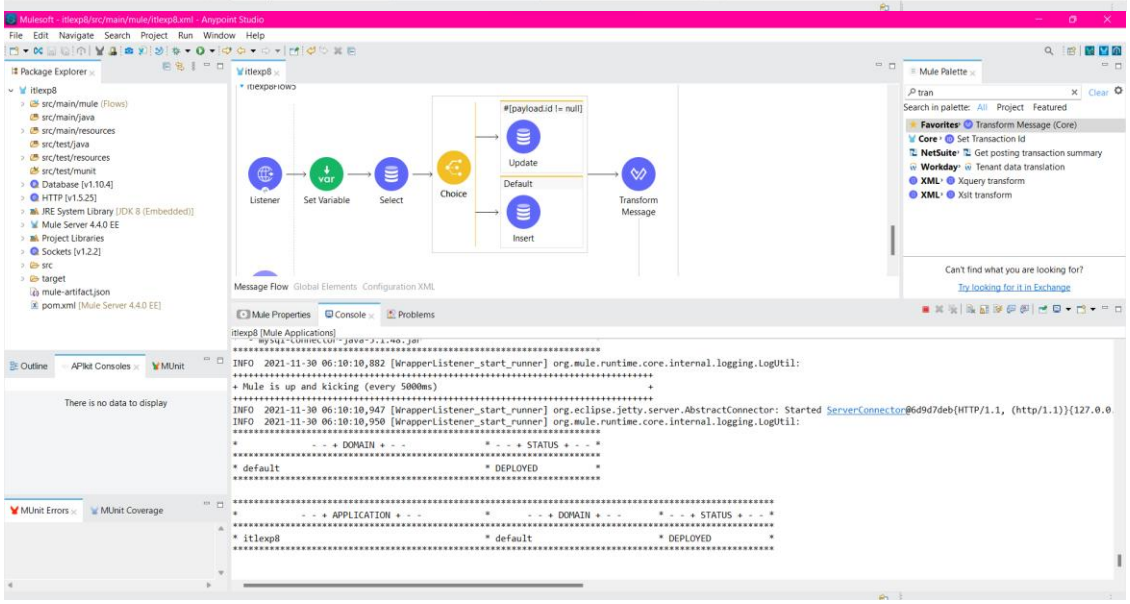
target
mule-artifact.json
pom.xml [Mule Server 4.4.0 EE]
itlexp8
itlexpFlow3
#[payload.id != null]
Listener
Set Variable
Select
Choice
Update
Default
Insert
Transform Message
Message Flow Global Elements Configuration XML
Mule Palette
tran
Search in palette: All Project Featured
Favorites Transform Message (Core)
Core Set Transaction Id
NetSuite Get posting transaction summary
Workday Tenant data translation
XML Xquery transform
XML Xslt transform
Can't find what you are looking for?
Try looking for it in Exchange
Transform Message
Console
Problems
Input
Payload : Object
affectedRows : Number?
generatedKeys : Object?
Variables
vInputPayload : String
Attributes : Void
Context
Output
Undefined Define metadata
Output Payload
Preview
%dw 2.0
output application/json
---
payload
Outline
APIkit Consoles
MUnit
There is no data to display
MUnit Errors
MUnit Coverage


Mulesoft - itlexp8/src/main/mule/itlexp8.xml - Anypoint Studio
File Edit Navigate Search Project Run Window Help
Package Explorer
itlexp8
src/main/mule (Flows)
src/main/java
src/main/resources
src/test/java
src/test/resources
src/test/munit
Database [v1.10.4]
HTTP [v1.5.25]
JRE System Library [JDK 8 (Embedded)]
Mule Server 4.4.0 EE
Project Libraries
Sockets [v1.2.2]
src
target
mule-artifact.json
pom.xml [Mule Server 4.4.0 EE]
itlexp8
itlexpFlow3
#[payload.id != null]
Listener
Set Variable
Select
Choice
Update
Default
Insert
Transform Message
Message Flow Global Elements Configuration XML
Mule Palette
tran
Search in palette: All Project Featured
Favorites Transform Message (Core)
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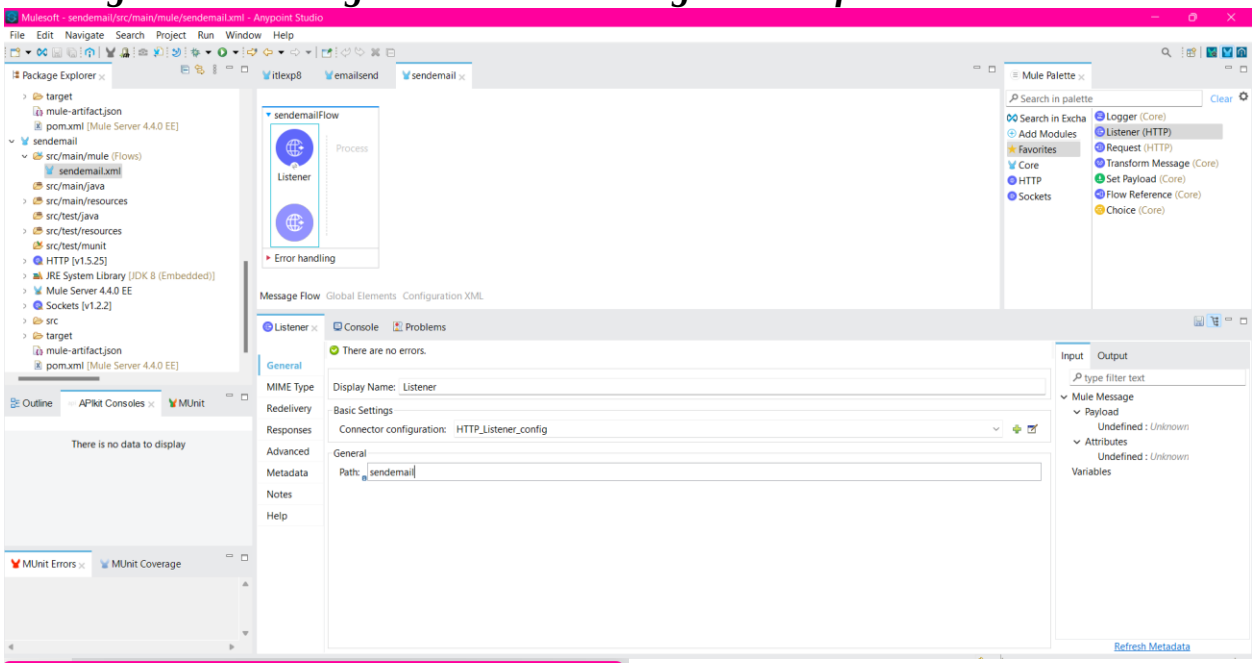
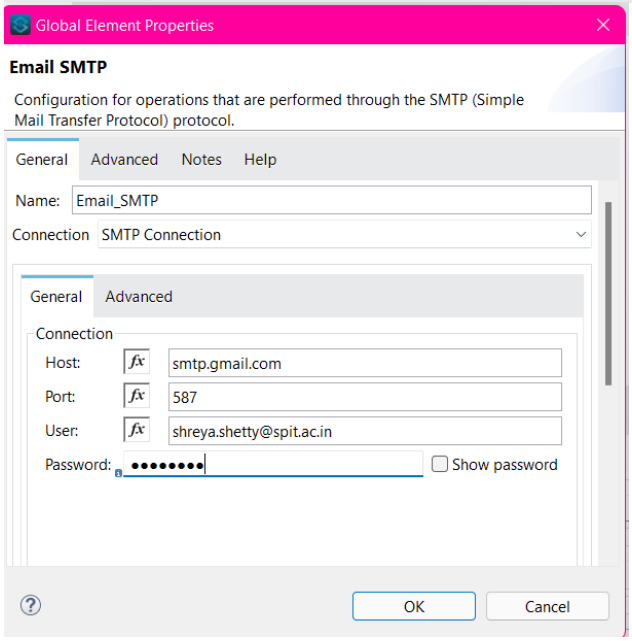
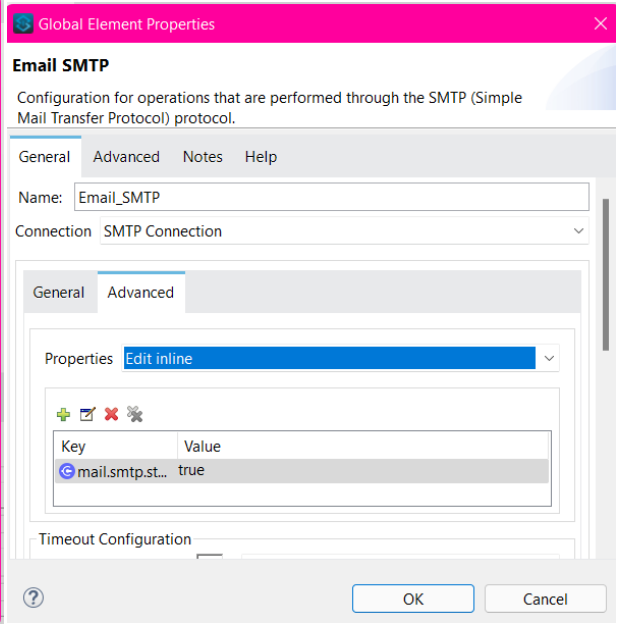
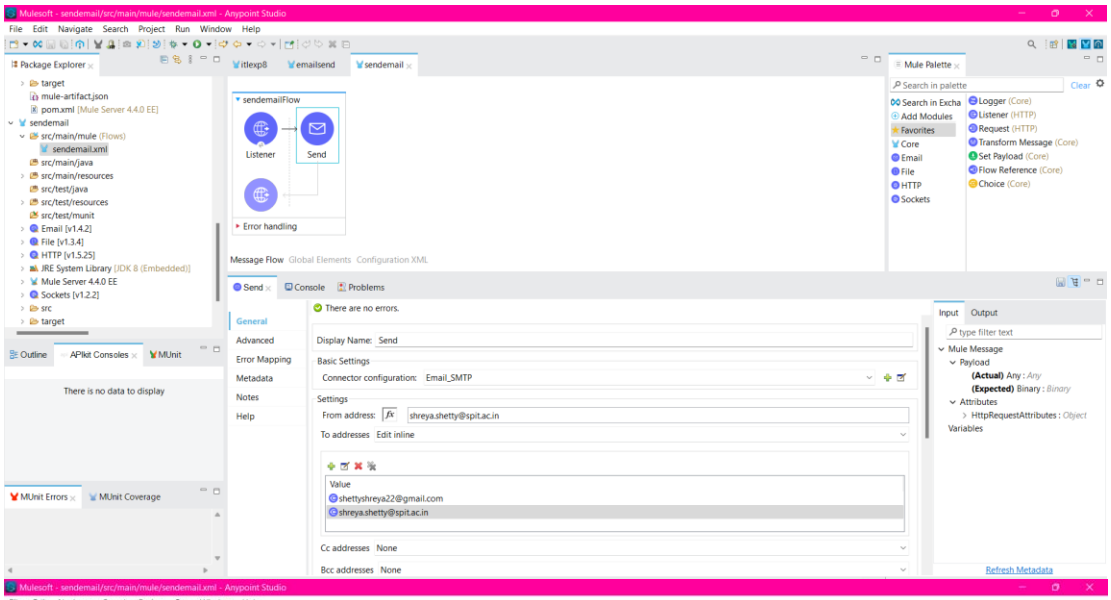
Workday Tenant data translation
XML Xquery transform
XML Xslt transform
Can't find what you are looking for?
Try looking for it in Exchange
Mule Properties
Console
Problems
itlexp8 [Mule Applications]
INFO 2021-11-30 06:10:10,882 [WrapperListener_start_runner] org.mule.runtime.core.internal.logging.LogUtil:
+ Mule is up and kicking (every 5000ms) +
INFO 2021-11-30 06:10:10,947 [WrapperListener_start_runner] org.eclipse.jetty.server.AbstractConnector: Started ServerConnector@6d9d7deb{HTTP/1.1, (http/1.1)}{127.0.0
INFO 2021-11-30 06:10:10,950 [WrapperListener_start_runner] org.mule.runtime.core.internal.logging.LogUtil:
* - - + DOMAIN + - - * - - + STATUS + - - *
* default * DEPLOYED *
* - - + APPLICATION + - - * - - + DOMAIN + - - * - - + STATUS + - - *
* itlexp8 * default * DEPLOYED *
Outline
APIkit Consoles
MUnit
There is no data to display
MUnit Errors
MUnit Coverage

Sending an email using Gmail SMTP through Mulesoft :








Mulesoft - sendemail/src/main/mule/sendemail.xml - Anypoint Studio
File Edit Navigate Search Project Run Window Help
Package Explorer
target
mule-artifact.json
pom.xml [Mule Server 4.4.0 EE]
sendemail
src/main/mule (Flows)
sendemail.xml
src/main/java
src/main/resources
src/test/java
src/test/resources
src/test/munit
Email [v1.4.2]
File [v1.3.4]
HTTP [v1.5.25]
JRE System Library [JDK 8 (Embedded)]
Mule Server 4.4.0 EE
Sockets [v1.2.2]
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target
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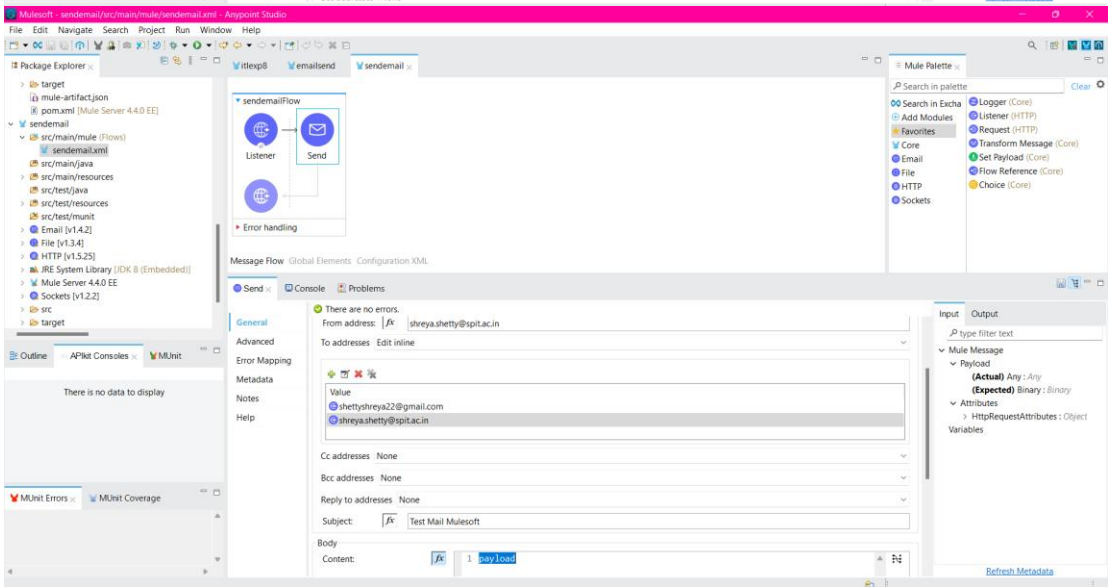
MUnit
There is no data to display
MUnit Errors
MUnit Coverage
itlexp8
emailsend
sendemail
sendemailFlow
Listener
Send
Error handling
Message Flow Global Elements Configuration XML
Mule Palette
Search in palette
Clear
Search in Excha
Add Modules
Favorites
Core
Email
File
HTTP
Sockets
Logger (Core)
Listener (HTTP)
Request (HTTP)
Transform Message (Core)
Set Payload (Core)
Flow Reference (Core)
Choice (Core)
Send
Console
Problems
There are no errors.
General
Advanced
Error Mapping
Metadata
Notes
Help
Display Name: Send
Basic Settings
Connector configuration: Email_SMTP
Settings
From address: shreya.shetty@spit.ac.in
To addresses Edit inline
Value
shettyshreya22@gmail.com
shreya.shetty@spit.ac.in
Cc addresses None
Bcc addresses None
Input
Output
type filter text
Mule Message
Payload
(Actual) Any : Any
(Expected) Binary : Binary
Attributes
HttpRequestAttributes : Object
Variables
Refresh Metadata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File [v1.3.4]
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Listener
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Error handling
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Search in palette
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Request (HTTP)
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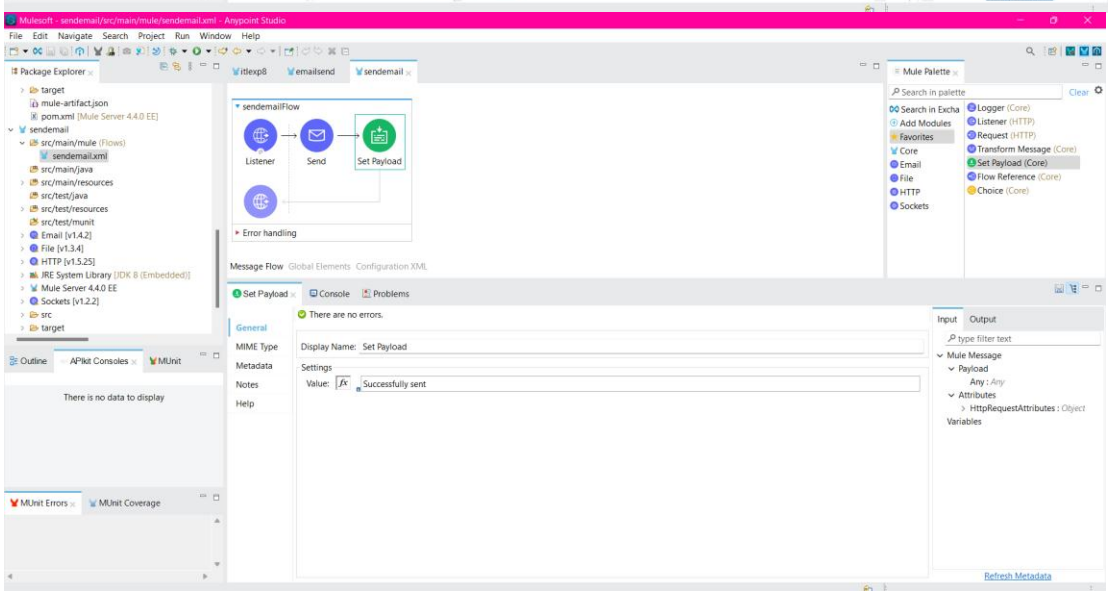
Set Payload (Core)
Flow Reference (Core)
Choice (Core)
Send
Console
Problems
There are no errors.
General
Advanced
Error Mapping
Metadata
Notes
Help
From address: shreya.shetty@spit.ac.in
To addresses Edit inline
Value
shettyshreya22@gmail.com
shreya.shetty@spit.ac.in
Cc addresses None
Bcc addresses None
Reply to addresses None
Subject: Test Mail Mulesoft
Body
Content:
1 payload
Input
Output
type filter text
Mule Message
Payload
(Actual) Any : Any
(Expected) Binary : Binary
Attributes
HttpRequestAttributes : Object
Variables
Refresh Metadata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Message Flow Global Elements Configuration XML
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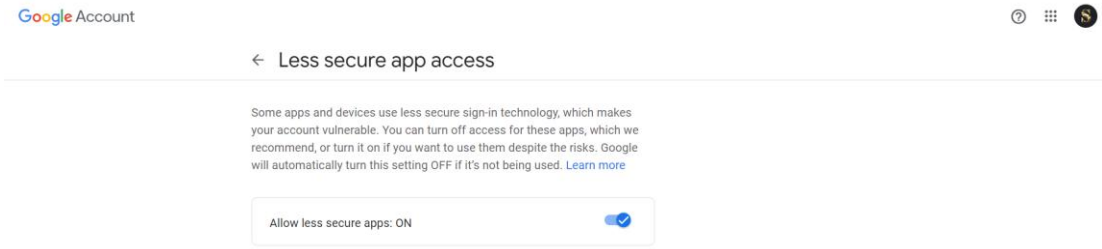
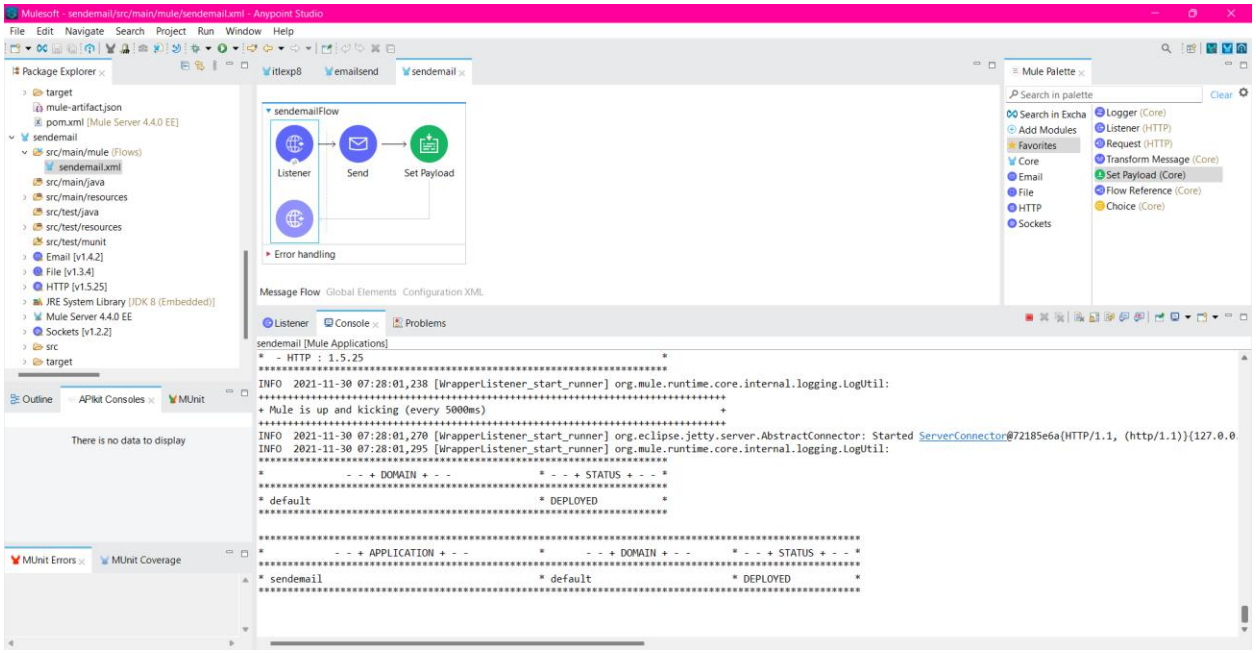
Add Modules
Favorites
Core
Email
File
HTTP
Sockets
Logger (Core)
Listener (HTTP)
Request (HTTP)
Transform Message (Core)
Set Payload (Core)
Flow Reference (Core)
Choice (Core)
Set Payload
Console
Problems
There are no errors.
General
MIME Type
Metadata
Notes
Help
Display Name: Set Payload
Settings
Value: Successfully sent
Input
Output
type filter text
Mule Message
Payload
Any : Any
Attributes
HttpRequestAttributes : Object
Variables
Refresh Metadata

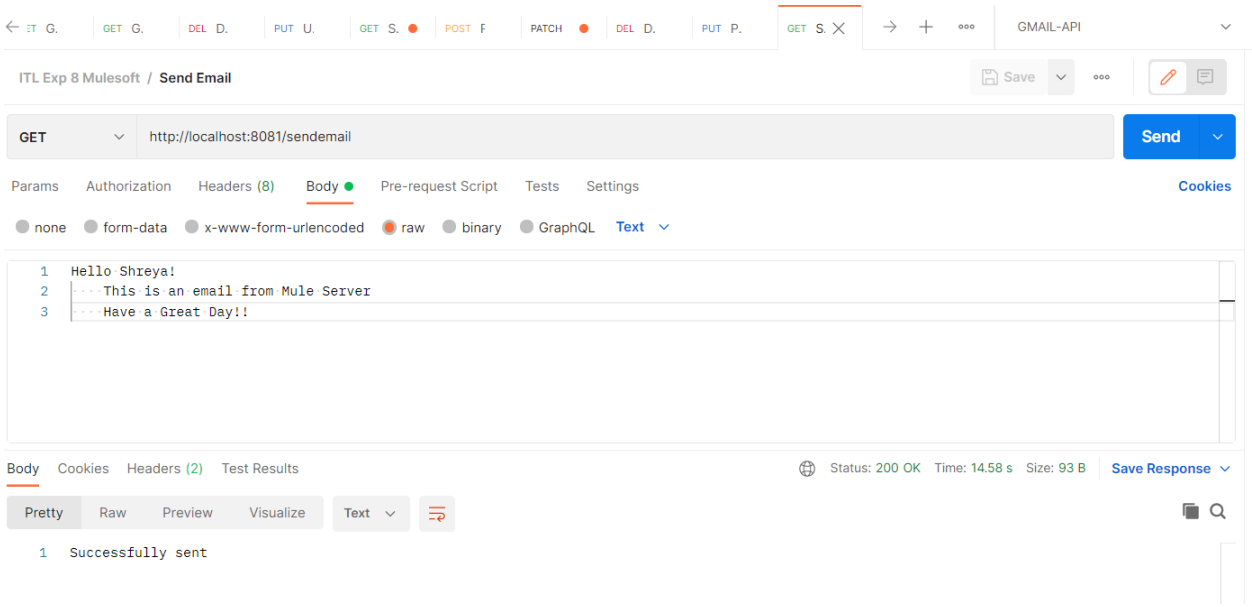
Changing Gmail account setting to allow less secure apps to send email :



Successfully Deployed On Mulesoft:



Sending an Email using Postman results in ‘Successfully Sent’ in Output:



Email received successfully:

CONCLUSION:

In this experiment, I successfully deployed Mule project and performed the CRUD operations and implemented an operation of sending an email using Mulesoft.