

LAB- Creating First Mule Flow

In this lab you will understand

a) how Http Inbound endpoint maps Http request message to Mule Message

b) How to use Set Payload transformer

c) How to access attributes in Mule Event

1) Create a new Mule Project with name **01-mule-basics-start**

Under src/main/mule , create a new Mule configuration file with name basics.xml

2) Select Http module in the mule palette, drag and drop Http Listener Endpoint.

You will see that Connector Configuration is showing an error.

Click on “+” and configure a new Http Listener Configuration. Give the Port number as 8081. **Dont give any base path as of now.**

Switch to xml mode and observe that following line is outside the <flow> tag.

```
<http:listener-config name="HTTP_Listener_config" doc:name="HTTP Listener config"
doc:id="3068cd45-c638-430b-89e6-a512d3eb4f8a" >
    <http:listener-connection host="0.0.0.0" port="8081" />
</http:listener-config>
```

This is a global element which can be referred from any flow

Now switch to graphical mode by clicking on MessageFlow tab.

Again double click on http Listener and configure path (under Basic settings) as “ /hello”

3) Drag SetPayload transformer after Http Listener. Set Value as #['Hello World']

4) Drag a Logger after SetPayload and set Message as #[attributes.queryParams.name]

5) Run the application and give a request to following URL in POSTMAN

<http://localhost:8081/hello?name=Siva>

Observe the logs and see the name printed.

6) Now change the value for Set Payload to print Hello + query parameter name as shown below:

```
'Hello' ++ attributes.queryParams.name
```

You should observe that there is an error in Studio. Can you guess why ?

Now change the value for SetPayload as below and observe that error message is gone.

```
'Hello' ++ attributes.queryParams.name as String
```

Run the application .

Open postman and give request to <http://localhost:8081/hello?name=Siva>

Did u get the response? See the response header Content-Type. It should be application/java.

Can u change the response mimetype to text/plain (HINT: U can set MIME type in Set Payload transformer)

7) Now change the path for Http Listener as /hello/{city}

Can you change the value for SetPayload to concatenate the value passed for city?

```
Hint : 'Hello' ++ attributes.queryParams.name as String ++ 'city : '++  
attributes.uriParams.city
```

7) We want to set a variable in the MuleEvent

Now Drag Set Variable transformer and configure a variable with name city and set its

values as
attributes.uriParams.city

8) In the Logger, change the value to log the variable “city”

Run the application and give the request to
<http://localhost:8081/hello/Bangalore?name=Siva>

Did u observe the city in the logs?

Optional Step. Do it if you have time. But I recommend to complete below step if possible

9)

Write another flow in the same xml which uses same http port and path as /display headers. This flow should return all the incoming http headers.

Congratulations !! You have Created your First mule flow and understood basics

This is the end of the Exercise