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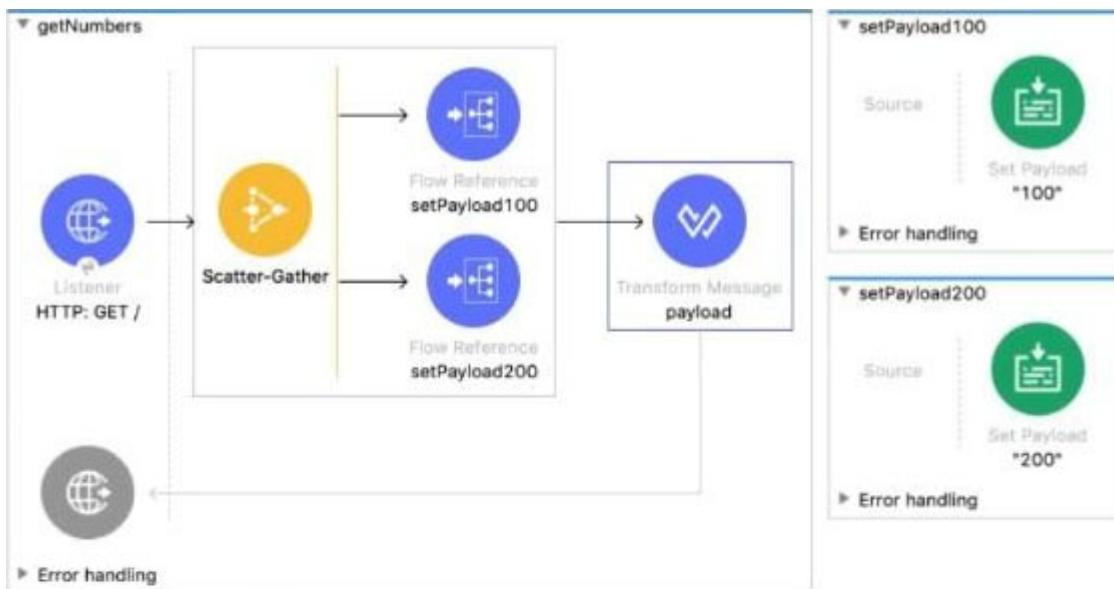
<https://www.itfreedumps.com>

Exam : MCD-Level 1

Title : MuleSoft Certified
Developer - Level 1 (Mule 4)

Version : V11.02

1. Refer to the exhibits.



The input array of strings is processed by the batch job that processes, filters, and aggregates the values.

What is the last message logged by the Logger component after the batch job completes processing?

A)

```
[  
  {  
    "attributes": ....,  
    "payload": "100"  
  },  
  {  
    "attributes": ....,  
    "payload": "200"  
  }  
]  
B)  
{  
  "0": "100",  
  "1": "200"  
}  
C)  
["100", "200"]  
D)  
{  
  "0": {  
    "attributes": ....,  
    "payload": "100"  
  },  
  "1": {  
    "attributes": ....,  
    "payload": "200"  
  }  
}
```

- A. Option A
- B. Option B
- C. Option C
- D. Option D

Answer: D

2.A mule project contains MySQL database dependency . The project is exported from Anypoint Studio so that it can be deployed to Cloudhub.

What export options needs to be selected to create the smallest deployable archive that will successfully deploy to Cloudhub?

- A. Select both the options 1) Attach project sources 2) Include project module and dependencies
- B. No need to select any of the below options 1) Attach project sources 2) Include project module and dependencies

C. Select only below option 2) Include project module and dependencies

D. Select only below option 1) Attach project sources

Answer: C

Explanation:

You can choose Attach Project Sources to include metadata that Studio requires to reimport the deployable file as an open Mule project into your workspace. You must keep the Attach Project Sources option selected to be able to import the packaged JAR file back into a Studio workspace. But requirement here is to create smallest deployable archive that will successfully deploy to Cloudhub. Hence we can ignore this option. We need to select Include project module and dependencies As actual modules and external dependencies required to run the Mule application in a Mule runtime engine

Hence correct answer is Select only below option 2) Include project module and dependencies

MuleSoft Doc

Ref: <https://docs.mulesoft.com/studio/7.5/import-export-packages#exporting-a-studio-project-to-a-deployable-mule-application>

3.A web client sends a request to `http://localhost:8081?dept=sales`.

What is the correct DataWeave expression to access the value of dept?

A. attributes.queryParams.dept

B. attributes.dept

C. message.queryParams.dept

D. vars.dept

Answer: A

4.A shopping API contains a method to look up store details by department

To get information for a particular store, web clients will submit requests with a query parameter named department and a URI parameter named storeId.

What is a valid RAML snippet that supports requests from web clients to get data for a specific storeId and department name?

A)

```
/department:  
  get:  
    uriParameter:  
      storeId:
```

B)

```
get:  
  queryParameters:  
    department:  
  uriParameters:  
    storeId:
```

C)

```

/{storeId}:
  get:
    queryParameters:
      department:

```

D)

```

get:
  uriParameters:
    {storeId}:
  queryParameters:
    department:

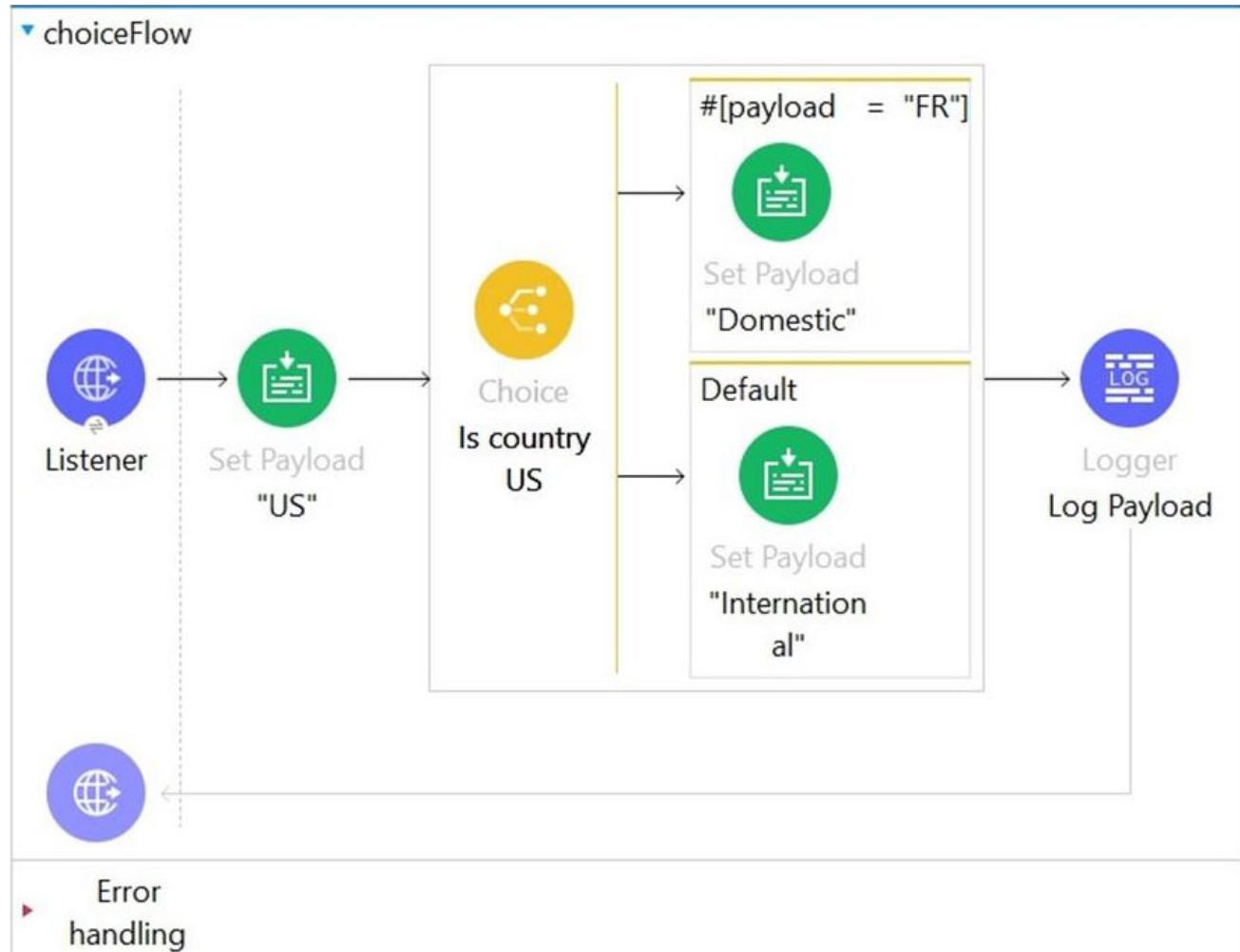
```

- A. Option A
- B. Option B
- C. Option C
- D. Option D

Answer: C

5.CORRECT TEXT

Refer to the exhibits.



In the choice router, the When expression for the domestic shipping route is set to "#[payload= "FR"]".

What is the output of logger after the execution of choice router is completed?

- A. "Domestic"
- B. "International"
- C. "US"
- D. A dataweave syntax error (Correct)

Answer: D

Explanation:

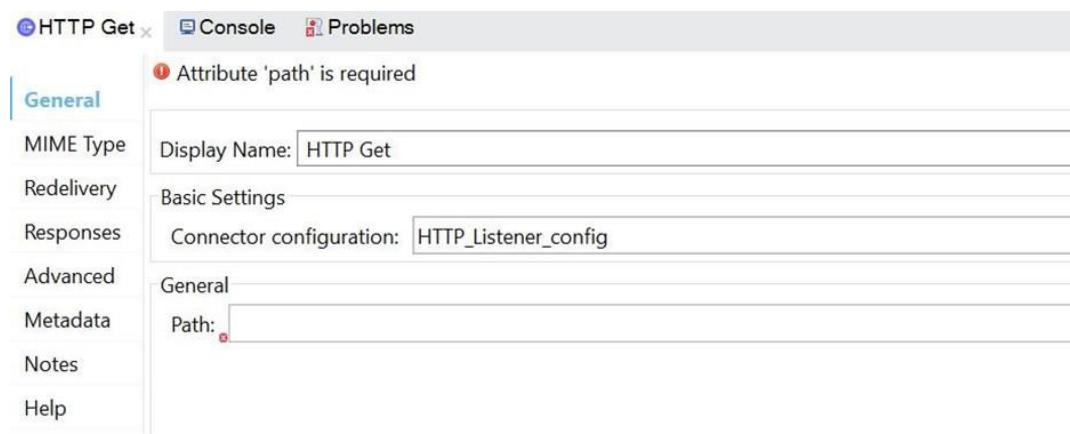
To compare, DataWeave syntax is #[payload == "FR"]. In this case only one = is used so it will give syntax error.

6. Refer to the exhibits.

The mule application implements a REST API that accepts GET request from two URL's which are as follows

- 1) http://acme.com/order/status
- 2) http://acme.com/customer/status

What path value should be set in HTTP listener configuration so that requests can be accepted for both these URL's using a single HTTP listener event source?



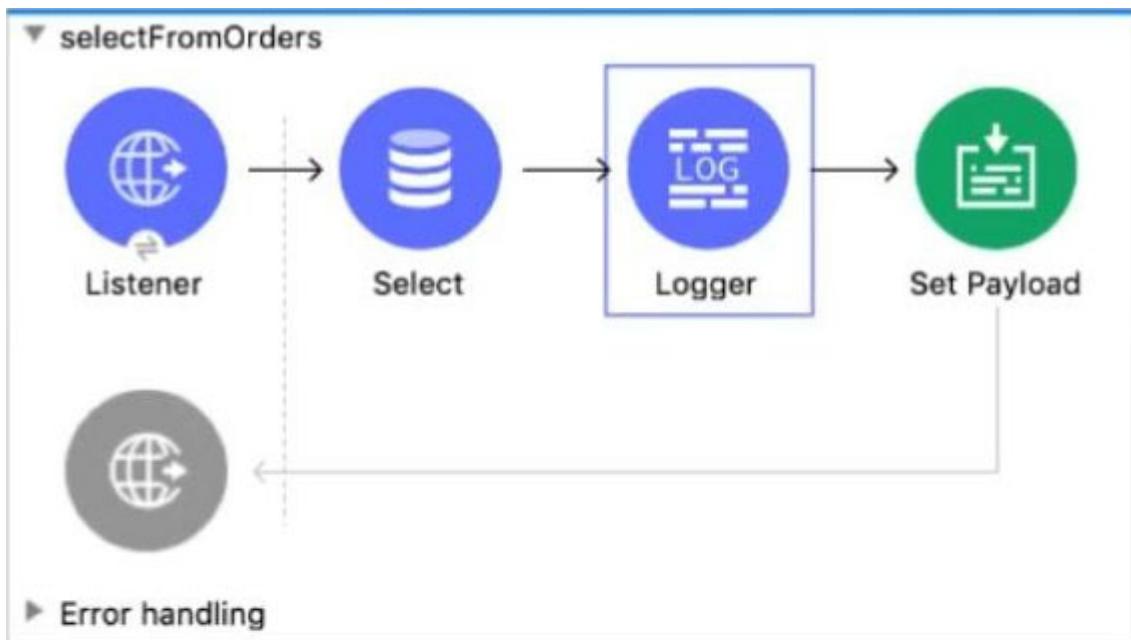
- A. *[order,customer]/status
- B. ?[order,customer]/status
- C. */status (Correct)
- D. *status

Answer: C

Explanation:

Correct answer is */status as it is the correct way to use wildcards while configuring path value in HTTP listener

7. Refer to the exhibit.



[Message Flow](#) [Global Elements](#) [Configuration XML](#)

Logger X Problems Console

There are no errors.

General	Display Name: Logger
Metadata	Generic
Notes	
Help	Message: <input type="text" value="#[typeOf(payload)]"/> Level: INFO (Default)
	Category:

The Database Select operation returns five rows from a database.

What is logged by the Logger component?

- A. "Array"
- B. "Object"
- C. "LinkedHashMap"
- D. "CaseInsensitiveHashMap"

Answer: C

8.What does C4E stands for in MuleSoft recommended IT operating model?

- A. Centre for Empowerment
- B. Centre for Engagement
- C. Centre for Enablement
- D. Centre for Excellence

Answer: C

Explanation:

Centre for Enablement (C4E) is an IT operating model that enables an enterprise to build reusable

assets, accumulate API's, leverage best practices and knowledge to enable self service and efficient delivery in the organization and implement new solutions faster

9.To avoid hard-coding values, a flow uses some property placeholders and the corresponding values are stored in a configuration file.

Where does the configuration file's location need to be specified in the Mule application?

- A. The pom.xml file
- B. A global element
- C. The mule-art if act .json file
- D. a flow attribute

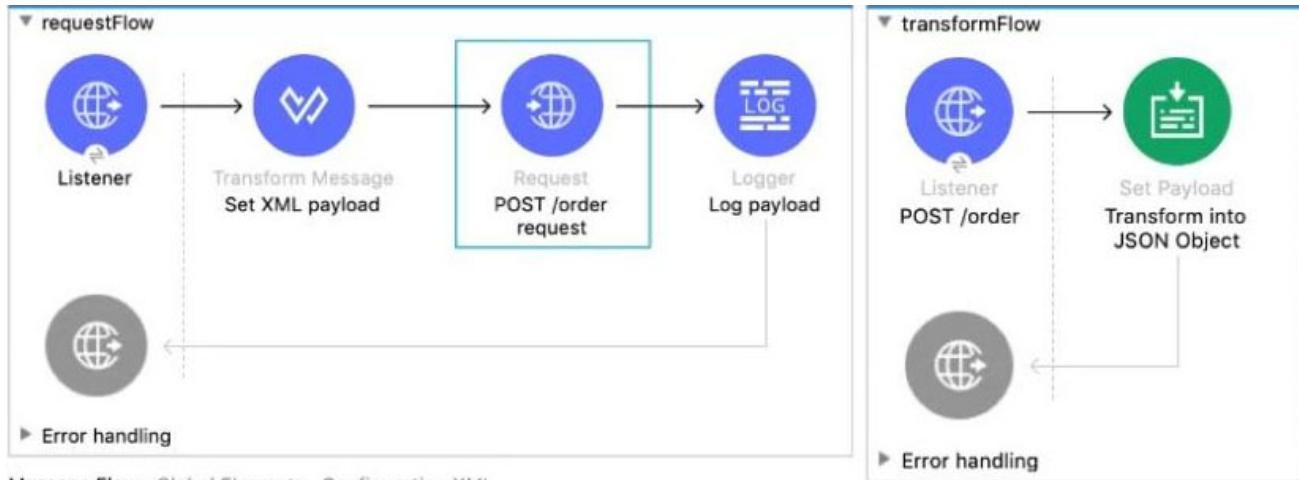
Answer: B

Explanation:

Correct answer is A global element

When we create a configuration file, that file needs to be added as Global Configuration file in Global element. A global element is a reusable object containing parameters that any number of elements in a flow can share. You reference a global element from Anypoint Connectors or components in your Mule application

10.Refer to the exhibits.



Message Flow Global Elements Configuration XML

POST /order request

There are no errors.

General	Streaming strategy: Reusable file store stream (Default)
MIME Type	In memory size: 1024
Request	Buffer unit: KB (Default)
Response	
Advanced	
Error Mapping	
Metadata	
Notes	
Output	Target Variable: theResult Target Value: #[payload]

In the request Flow an HTTP Request operation is configured to send an HTTP request with an XML

payload. The request is sent to the HTTP Listener in the transform Flow.

That flow transforms the incoming payload into JSON format and returns the response to the HTTP request. The response of the request is stored in a target variable named the Result.

What is the payload at the Logger component after the HTTP Request?

- A. A non-empty Java object
- B. The original XML payload
- C. null
- D. The returned JSON response

Answer: B

11.Why would a Mule application use the \${http.port} property placeholder for its HTTP Listener port when it is deployed to CloudHub?

- A. Allows CloudHub to automatically change the HTTP port to allow external clients to connect to the HTTP Listener
- B. Allows CloudHub to automatically register the application with API Manager
- C. Allows MuleSoft Support to troubleshoot the application by connecting directly to the HTTP Listener
- D. Allows clients to VPN directly to the application at the Mule application's configured HTTP port

Answer: A

Explanation:

This helps CloudHub to dynamically allocates a port at deployment time. MuleSoft Doc

Ref:

<https://docs.mulesoft.com/mule-runtime/4.3/deploy-to-cloudhub#prerequisites>

<https://docs.mulesoft.com/runtime-manager/developing-applications-for-cloudhub>

12.A REST connect module is generated for a RAML specification. and then the rest connect module is imported in mule application in Anypoint Studio.

For each method of the RAML specification, what does the REST connect module provide?

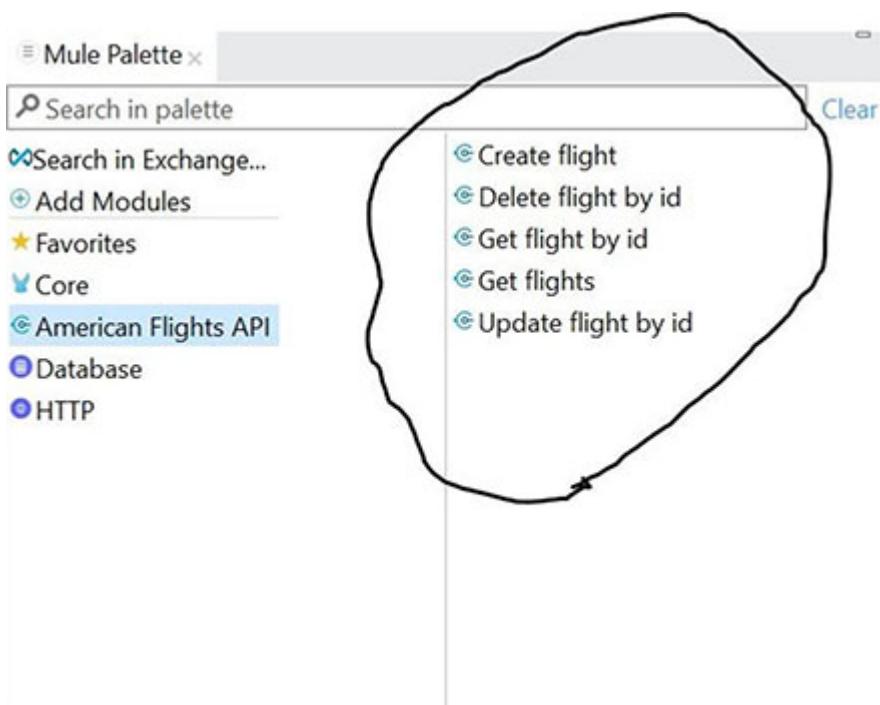
- A. A scope
- B. A flow
- C. An operation
- D. An event source

Answer: B

Explanation:

Correct answer is an operation. For each method of the RAML specification, REST connect module provide an operation.

Please refer to the below screenshot.



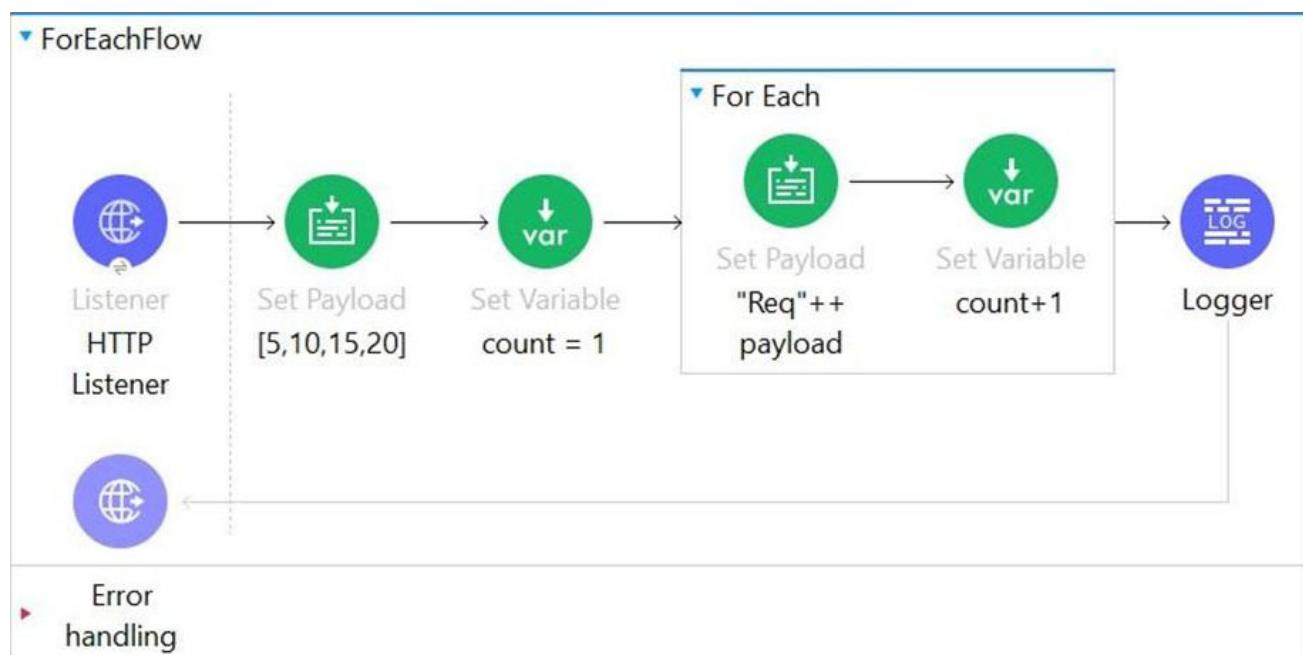
13. A company has an API to manage purchase orders, with each record identified by a unique purchase order ID. The API was built with RAML according to MuleSoft best practices.

What URI should a web client use to request order P05555?

- A. /orders/{P05555}
- B. /orders/order=P05555
- C. /orders?order=P05555
- D. /orders/P05555

Answer: D

14. Refer to the exhibits.



```

<flow name="ForEachFlow" doc:id="c21c793d-3028-4132-99d5d3465910" >
  <http:listener doc:name="HTTP Listener" doc:id="20e8c038-6cb8-429f-88a4-0d80e3a77fa6" config-ref="HTTP_Listener_config" path="/foreach"/>
  <set-payload value="#[[5,10,15,20]]" doc:name="5,10,15,20" doc:id="fb037946-9ac8-4878-8d8b-6e445996e329" />
  <set-variable value="1" doc:name="count = 1" doc:id="fa49dc7a-0aca-45c0-9ebe-bc3dd7287b26" variableName="count"/>
  <foreach doc:name="For Each" doc:id="c3c8291b-dfc4-4ffd-b4f7-9b866b244b66" >
    <set-payload value="#["Request" ++ payload]" doc:name="Req"++ payload" doc:id="ecb25934-bb92-40f4-95ab-0247a68b9c24" />
    <set-variable value="#[[vars.count + 1]]" doc:name="count+1" doc:id="3cf825b6-f82b-4b27-bcf2-75b019910911" variableName="count"/>
  </foreach>
  <logger level="INFO" doc:name="Logger" doc:id="249166b0-b6a4-4073-b21e-a0b514ff8d07" message="#[[payload, vars.count]]"/>
</flow>

```

What payload and variable are logged at the end of the main flow?

- A. [[5, 10, 15, 20], 1]
- B. [[5, 10, 15, 20], 5]
- C. [[Req5, Req10, Req15, Req20], 5]
- D. [Req5Req10,Req15Req20, 5]

Answer: B

Explanation:

Correct answer is [[5, 10, 15, 20], 5]

Key thing to note here is that any changes made to payload in for each loop are not available outside for each scope where as variable value updated in for each loop is visible out side for each loop too.

15.Which of the below is not a valid category for connector type?

- A. Gold
- B. Select
- C. Premium
- D. Community

Answer: A

Explanation:

Gold is not valid category for connector types.

MuleSoft Doc

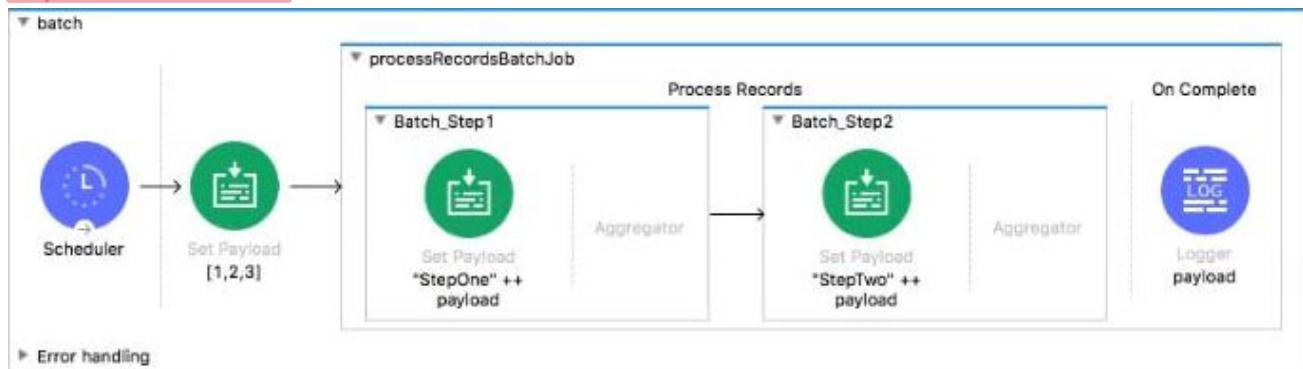
Ref: <https://docs.mulesoft.com/mule-runtime/3.7/anypoint-connectors#connector-support-categories>

Type	Description
Community	MuleSoft or members of the MuleSoft community write and maintain the Community connectors. Connectors built by the community or MuleSoft are generally open-source, although each package may vary. Partner-built connectors may not be open-source. Contact the partner directly for more information. You do not need any special account or license to use a Community connector.
MuleSoft Certified	For MuleSoft Certified connectors are developed by MuleSoft's partners and developer community and are reviewed and certified by MuleSoft. For support, customers should contact the MuleSoft partner that created the MuleSoft Certified connector.
Select	MuleSoft maintains Select connectors. Connectors included in the open source Mule distribution can be used by everyone, however support is only included in an Anypoint Platform subscription. To use all other Select Connectors and access support, you must have an active Anypoint Platform subscription.
Premium	MuleSoft maintains Premium connectors; you must have an active CloudHub Premium plan or an Enterprise subscription with an entitlement for the specific connector you wish to use.

Text

Description automatically generated with medium confidence

16. Refer to the exhibit.



What is the output payload in the On Complete phase?

- A. summary statistics with NO record data
- B. The records processed by the last batch step: [StepTwo1, StepTwo2, StepTwo3]
- C. The records processed by all batch steps: [StepTwostepOne1, stepTwostepOne2, StepTwoStepOne3]
- D. The original payload: [1,2,3]

Answer: A

Explanation:

This is a trick question. On complete phase payload consists of summary of records processed which gives insight on which records failed or passed. Hence option 4 is correct answer

MuleSoft Documentation

Reference: <https://docs.mulesoft.com/mule-runtime/4.3/batch-processing-concept#on-complete>

17. Refer to the exhibits.



```
<flow name="acceptOrder">
    <http:listener doc:name="HTTP: POST /order" config-ref="HTTP_Listener_config"
        path="/order" allowedMethods="POST">
        <http:error-response>
            <http:body><! [CDATA[#[output text/plain --- payload]]]></http:body>
        </http:error-response>
    </http:listener>
    <file:write doc:name="Write" config-ref="File_Config" path="newOrder.json">
        <error-mapping sourceType="FILE:CONNECTIVITY" targetType="ORDER:NOT_CREATED" />
        <file:content><! [CDATA[#[output application/json --- payload]]]></file:content>
    </file:write>
    <set-payload value='#[{"File written"}' doc:name='File written' />
```

The Mule application does NOT define any global error handlers.

A web client sends a POST request to the Multi application with this input payload The File Write operation throws a FILECONNECTIVITY error

What response message is returned to the web client?

- A. "ORDER NOT_CREATED"
- B. "OTHER ERROR"
- C. "File written"
- D. "FILECONNECTIVITY"

Answer: A

18. Refer to the exhibits.

```
##%RAML 1.0
title: ACME Airlines
version: 1.0

/flights:
  get:
    responses:
      200:
      404:

/airline:
  get:
    queryParameters:
      code: string
    responses:
      200:
      404:

/accounts:
  get:
    responses:
      200:
      404:
  post:
    responses:
      201:
```

How many private flows does APIKit generate from RAML specification?

- A. 1
- B. 2
- C. 3
- D. 4

Answer: D

Explanation:

APIKit Creates a separate flow for each HTTP method. Hence 4 private flows would be generated.

MuleSoft Documentation

Reference: <https://docs.mulesoft.com/mule-runtime/4.3/build-application-from-api>

19.What is output of Dataweave flatten function?

- A. Object
- B. Map
- C. Array (Correct)
- D. LinkedHashMap

Answer: C

Explanation:

Correct answer is Array.

Flatten turns a set of subarrays (such as [[1,2,3], [4,5,[6]], [], [null]]) into a single, flattened array (such as [1, 2, 3, 4, 5, [6], null]).

This example defines three arrays of numbers, creates another array containing those three arrays, and then uses the flatten function to convert the array of arrays into a single array with all values.

Source

```
%dw 2.0
output application/json
var array1 = [1,2,3]
var array2 = [4,5,6]
var array3 = [7,8,9]
var arrayOfArrays = [array1, array2, array3]
---
flatten(arrayOfArrays)
Output
[ 1,2,3,4,5,6,7,8,9 ]
```

20.What is the purpose of the api:router element in APIkit?

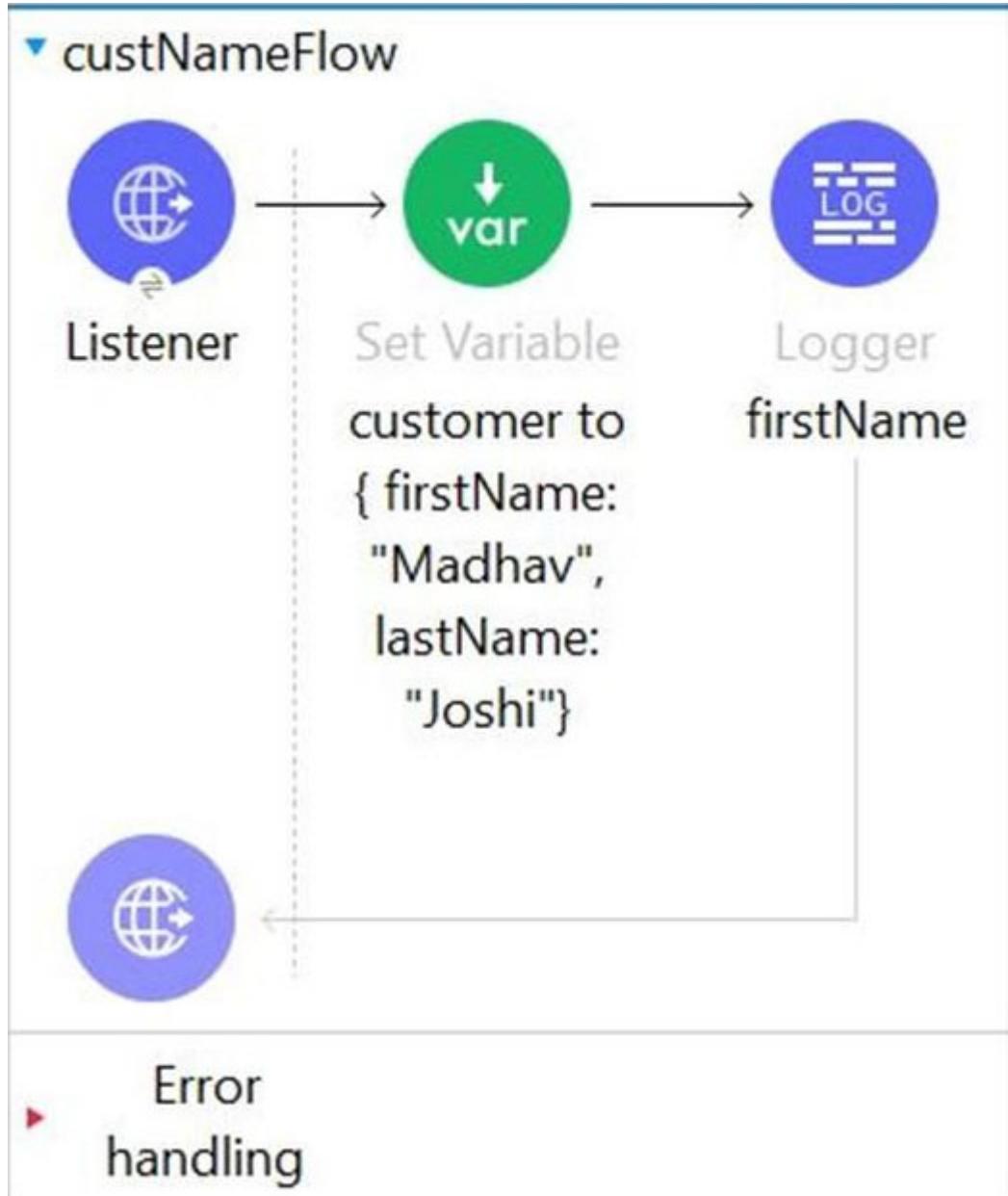
- A. Creates native connectors using a 3rd party Java library
- B. Serves as an API implementation
- C. Validates requests against RAML API specifications and routes them to API implementations
- D. Validates responses returned from API requests and routes them back to the caller

Answer: C

Explanation:

The APIkit Router is a key message processor that validates requests against the provided definition, enriches messages (for example by adding default values to the messages) and routes requests to a particular flow. Also, the Router raises errors messages if errors occurs while routing, validating or processing the user request.

21.Refer to the exhibits.



```

<flow name="custNameFlow" doc:id="bcbd3cba-7ff3-469a-a38f-026be38282ba" >
    <http:listener doc:name="Listener" config-ref="HTTP_Listener_config" path="/Log"/>
    <set-variable value="#[{"firstName": "Madhav", "lastName": "Joshi"}]" doc:name='customer to { firstName: "Madhav", lastName: "Joshi" }' variableName="customer"/>
    <logger level="INFO" doc:name="firstName" message="??????" />
</flow>

```

Set payload transformer is set the firstName and lastName of the customer as shown in below images.
 What is the correct Dataweave expression which can be added in message attribute of a Logger activity to access firstName (which in this case is Madhav) from the incoming event?

- A. firstName
- B. customer.firstName
- C. vars."customer.firstName"
- D. vars."customer"."firstName"

Answer: D

Explanation:

Correct answer is vars."customer"."firstName"

Please you can also access firstName using this syntax vars.customer.firstName.

22.What is not the function of API Gateway?

- A. Determine which traffic is authorized to pass through the API to backend services
- B. Meter the traffic flowing through
- C. Logs all transactions, collecting and tracking analytics data
- D. Specify throttling, security and other policies

Answer: D

Explanation:

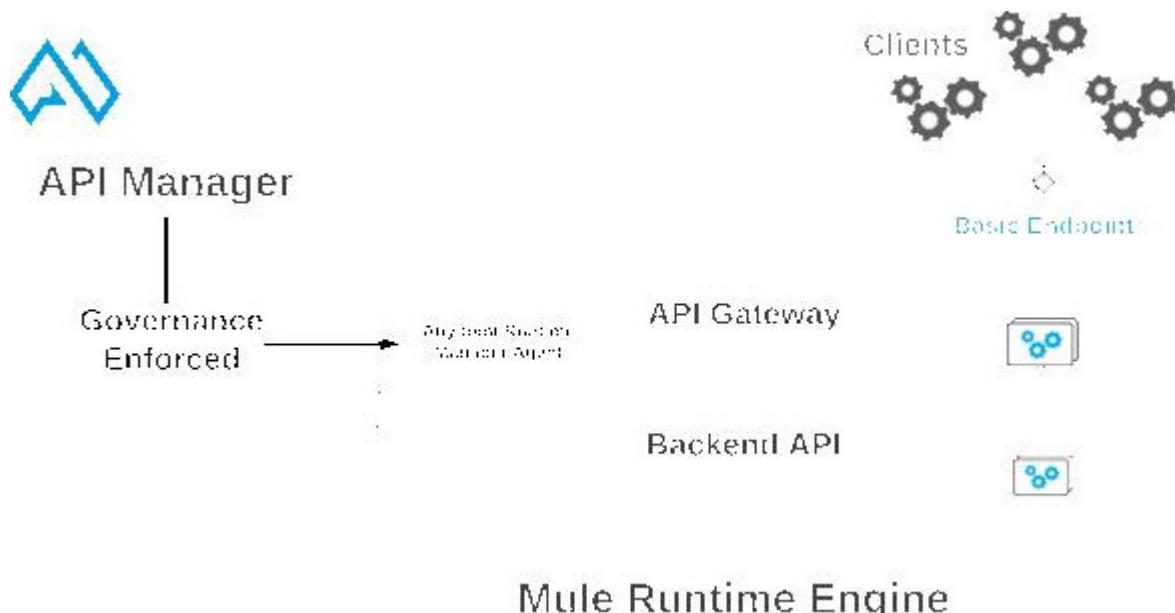
Correct answer is Specify throttling, security and other policies

MuleSoft Doc

Ref: <https://docs.mulesoft.com/api-manager/2.x/api-gateway-capabilities-mule4>

API Gateway is responsible for below functions.

- 1) Determine which traffic is authorized
- 2) Meter the traffic
- 3) Logs transaction
- 4) Apply throttling and other policies (Not specifying. These are specified in API Manager)



Graphical user interface, text, application

Description automatically generated

23.What path setting is required for an HTTP Listener endpoint to route all requests to an APIkit router?

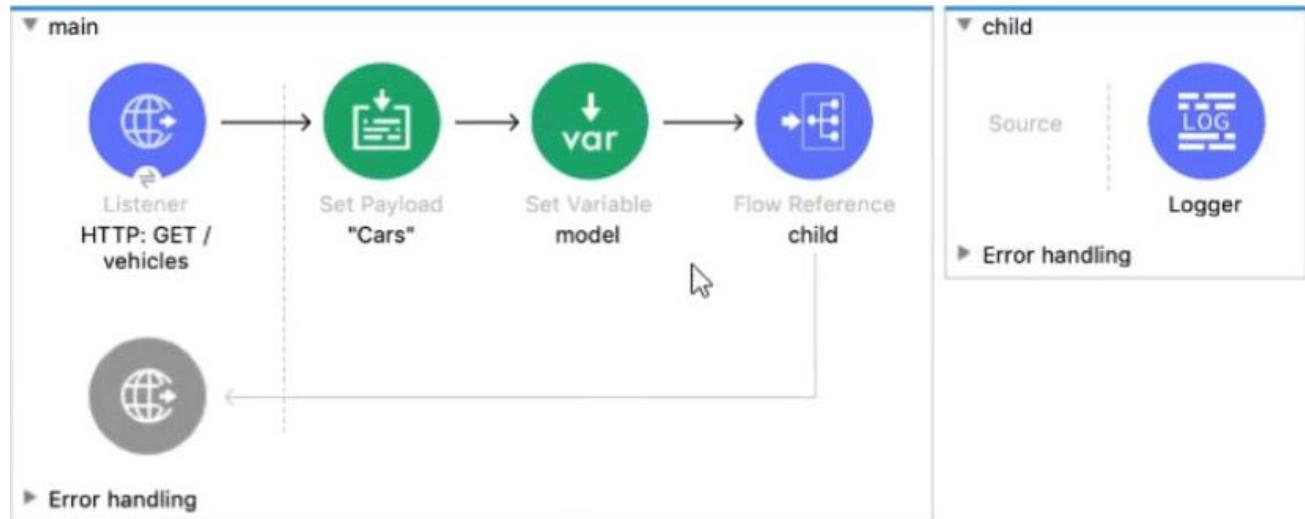
- A. /*
- B. /
- C. ()
- D. /*

Answer: D

Explanation:

Option1 is correct syntax to configure HTTP Listener endpoint

24. Refer to the exhibits.



The main flow contains a Flow Reference to the child flow.

A web client sends a GET request to the main flow's HTTP Listener that includes a make query parameter.

What values are accessible in the child flow?

- A. payload
- B. payload
- make query param
- C. payload model var
- D. payload
- make query param model var

Answer: D

25. As a part of requirement, application property defined below needs to be accessed as dataweave expression.

What is the correct expression to map it to port value?

- A. { port : p('db.port') }
- B. { port : {db:port} }
- C. { port : p['db.port'] }
- D. Application property cannot be accessed in Dataweave

Answer: A

Explanation:

Option 1 is the correct syntax

26. Refer to the exhibits.



Message Flow Global Elements Configuration XML

The screenshot shows the configuration interface for the 'Set to XML' component. The title bar says 'Set to XML X Problems Console'. The left sidebar has tabs for 'General', 'Metadata', and 'Notes', with 'General' selected. The main area has a 'Display Name' field set to 'Set to XML'. Under 'Settings', there is a code editor containing XML code. Below the code editor are fields for 'Encoding' and 'MIME Type'. At the bottom, there is a large block of XML code.

```

<flow name="getFlights" >
    <http:listener doc:name="HTTP: GET /flights" config-ref="HTTP_Listener_config" path="/flights"/>
    <set-payload value='&lt;ns2:listAllFlightsResponse xmlns:ns2="http://soap.training.mulesoft.com/"&gt;
        &lt;return&gt;
            &lt;airlineName&gt;Delta&lt;/airlineName&gt;
            &lt;code&gt;A182C3&lt;/code&gt;
            &lt;departureDate&gt;2015/03/20&lt;/departureDate&gt;
        &lt;/return&gt;
    &lt;/ns2:listAllFlightsResponse&gt;' doc:name="Set to XML" />
    <ee:transform doc:name="typeOf(payload)" doc:id="43898508-15e2-4cb7-8d0b-bd9c2929209e" >
        <ee:message><ee:set-payload ><! [CDATA[%dw 2.0
            output application/json
            ---
            typeOf(payload)]]></ee:set-payload>
        </ee:message>
    </ee:transform>
</flow>

```

A web client submits a request to [http://localhost:8081 /flights](http://localhost:8081/flights).

What is the result at the end of the flow?

- A. "string"
- B. "Java"
- C. "object"
- D. "XML"

Answer: A

27.What MuleSoft API-led connectivity layer is intended to expose part of a backend database without business logic?

- A. Data layer
- B. Process layer

C. Experience layer

D. System layer

Answer: D

Explanation:

Correct answer is System layer

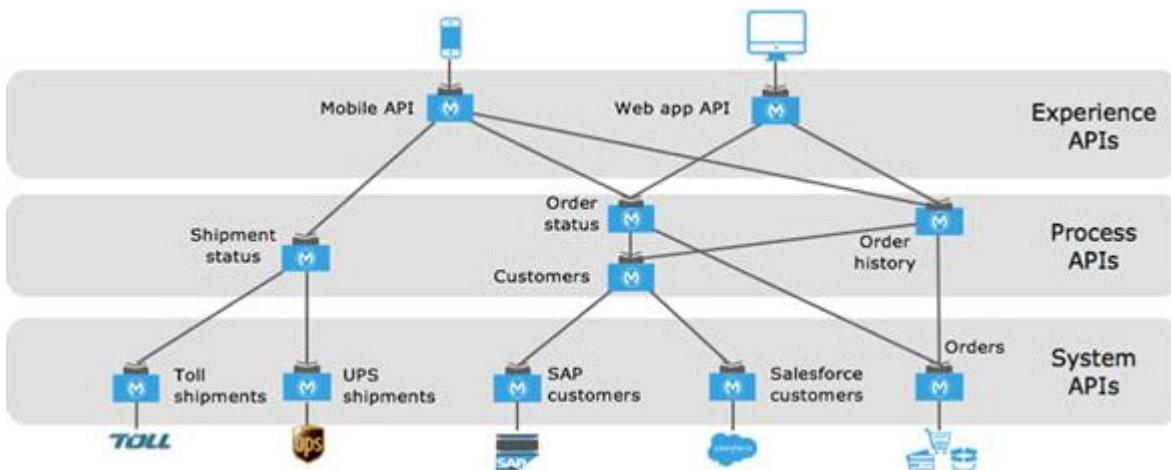
System APIs provide a means for insulating the data consumers from the complexity or changes to the underlying backend systems.

MuleSoft recommends three-layered approach to API-led connectivity, highlighting the three layers:

- * System APIs
- * Process APIs
- * Experience APIs

System APIs are the core systems of record underlying core systems of record (e.g. ERPs, key customer and billing systems, databases, etc.). Process APIs allow you to define a common process which the organization can share, and these APIs perform specific functions, provide access to non-central data, and may be built by either Central IT or Line of Business IT. And finally, the Experience APIs are the means by which data can be reconfigured so that it is most easily consumed by its intended audience, all from a common data source.

The three-layered structure allows for a seamless flow of data from systems of record to new experiences, and allows for reusability of assets rather than point to point connections. This approach provides a distributed and tailored approach to architecture, greater flexibility through loose coupling, and deeper operational visibility into what is being built.



Diagram

MuleSoft MCD-Level-1 : Practice Test Description automatically generated

28.What valid RAML retrieves details on a specific customer by its customerId as a URI parameter?

A. 1. /customers:

2. /get:

3. /customerId:

B. 1. /customers:

2. /{customerId}:

3. get:

C. 1. /customers:

- 2. /customerId:
- 3. get:
- D. 1. /customers:
- 2. get:
- 3. /{customerId}:

Answer: B

Explanation:

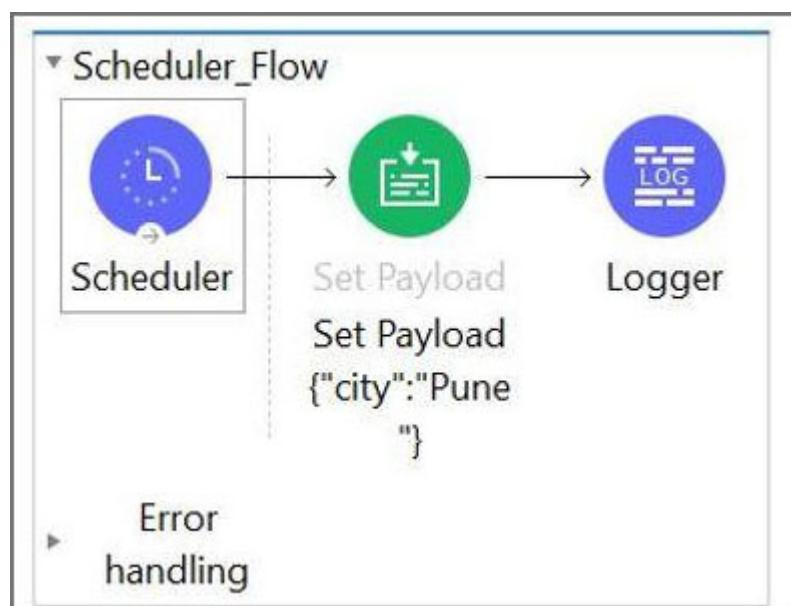
Correct answer is below as it follows the correct syntax.

/customers:

/customerId:

get:

29. Refer to exhibits.



What message should be added to Logger component so that logger prints "The city is Pune" (Double quote should not be part of logged message)?

- A. #["The city is" ++ payload.City]
- B. The city is + #[payload.City]
- C. The city is #[payload.City]
- D. #[The city is \${payload.City}]

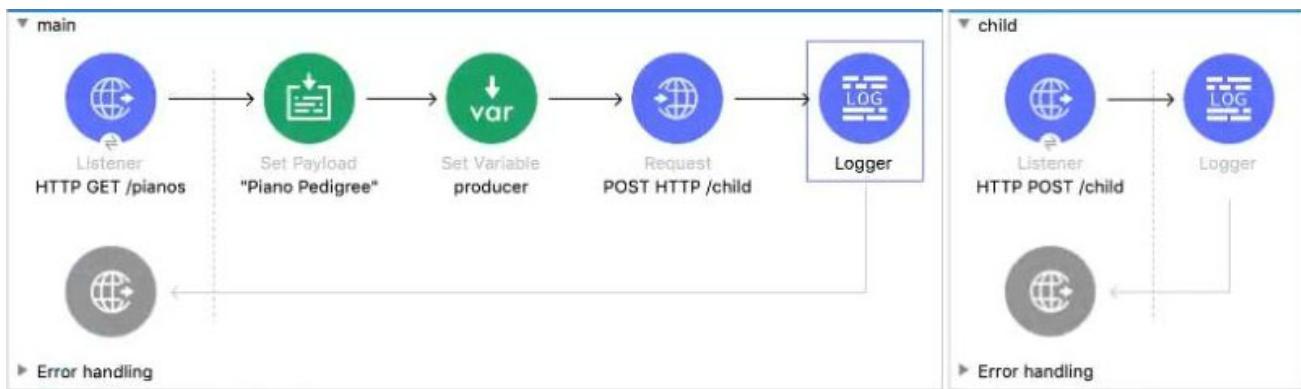
Answer: C

Explanation:

Correct answer is The city is #[payload.City]

Answer can get confused with the option #["The city is" ++ payload.City] But note that this option will not print the space between is and city name. This will print The city isPune

30. Refer to the exhibits.



```
<http:request method="POST" doc:name="POST HTTP /child" url="http://localhost:8081/child">
</http:request>
<logger level="INFO" doc:name="Logger"/>
</flow>

<flow name="child" >
    <http:listener doc:name="HTTP POST /child" config-ref="HTTP_Listener_config" path="/child"/>
```

The main flow contains an HTTP Request in the middle of the flow.

The HTTP Listeners and HTTP Request use default configurations.

A web client submits a request to the main flow's HTTP Listener that includes query parameters for the pedigree of the piano.

What values are accessible to the Logger component at the end of the main flow?

- A. payload
 - B. payload
 - pedigree query params
 - C. payload producer var
 - D. payload
 - pedigree query params producer var

Answer: C

Explanation:

In this case as outbound call is made using HTTP: POST /child, all attributes will be replaced by this invocation. Hence query parameter will not be accessible at logger. Hence correct answer is option 2

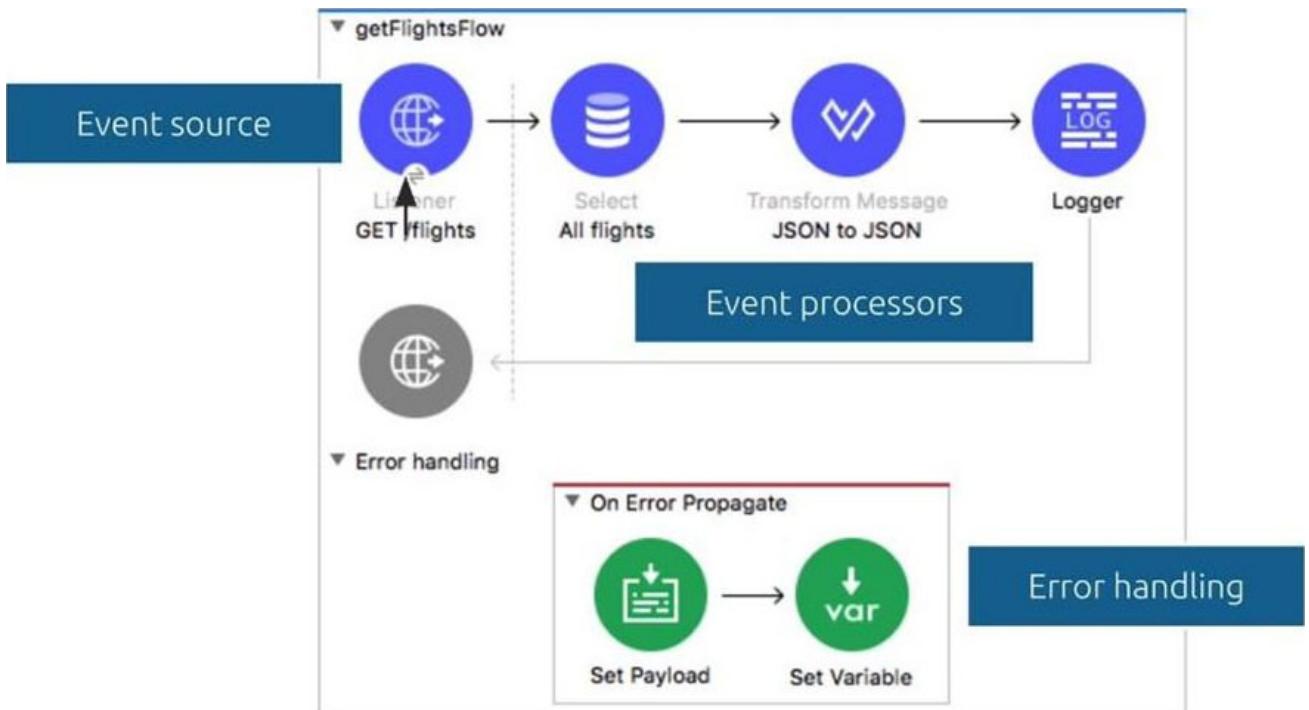
31.What is minimal requirement in a flow for a Mule application to compile?

- A. Event Source
 - B. Event Processors
 - C. Error handlers
 - D. Source and processors both

Answer: B

Explanation:

Process section is must to get compiles. Process section must have one or more processors



Diagram

Description automatically generated

32. Refer to the exhibits. APIKit router is used to generate the flow components for RAML specification. The Mule application must be available to REST clients using the two URL's
<http://localhost:8081/internal> and <http://localhost:8081/external>

How many APIKit Router components are generated to handle requests to every endpoint defined in RAML specification?

1. Library.raml

2. /books

3. get:

4. post:

5. /order:

6. get

7. patch

8. /members

9. get:

A. 1

B. 2

C. 3

D. 5

Answer: A

Explanation:

Correct answer is 5 as APIkit for REST generates a backend flow for each resource-action pairing in a RAML file.

MuleSoft Doc

Ref: <https://docs.mulesoft.com/mule-runtime/4.2/build-application-from-api>

33.Mule application contains ActiveMQ JMS dependency. Mule application was compiled and run successfully in Anypoint Studio. The mule application must now be exported from Anypoint Studio and shared with other developer.

What export options should be selected to create the smallest JAR file that can be imported into other developer's Anypoint Studio and run successfully?

- A. Select only Attach Project Sources only
- B. Select both Attach Project Sources and Include project modules and dependencies option
- C. Select the Include project modules and dependencies option only
- D. De-select both Attach Project Sources and Include project modules and dependencies option

Answer: A

Explanation:

Correct answer is Select only Attach Project Sources only

You must keep the Attach Project Sources option selected to be able to import the packaged JAR file back into a Studio workspace.

Deselect the Include project modules and dependencies option.

This option skips bundling the actual modules and external dependencies required to run the Mule application in a Mule runtime engine, creating a lightweight JAR file package that does not include any dependencies specified in the Mule application's pom.xml file.

The generated JAR file is not a functional deployable archive and cannot be deployed to a Mule runtime engine, but instead offers a way to archive only the source files that make up the Mule application. This is the same as using the -lightWeightPackage flag when

packaging using the Mule Maven Plugin and is useful if you want to distribute your project to other Studio installations because it only keeps a reference to all its dependencies. When you import a lightweight package into Studio, all your dependencies are automatically downloaded MuleSoft Doc

Ref: <https://docs.mulesoft.com/studio/7.8/import-export-packages>

34.What is the output of Dataweave Map operator?

- A. Map
- B. Object
- C. String
- D. Array

Answer: D

Explanation:

Returns an array that is the result of applying a transformation function (lambda) to each of the elements.

MuleSoft Doc

Ref: <https://docs.mulesoft.com/mule-runtime/4.3/dataweave-cookbook-map> The map operator is a function in Dataweave which iterates over the items in an array and outputs them into a new array. It basically accepts input as a list of items in an array and manipulates the items in the array in order to form a new array as an output. I have created below chart for your easier understanding:

Important Operators

Operator	Can be applied on input which is/are	Output type	Used for
map	On Arrays only	Array	Array of Object
mapObject	On Objects only	Object	Output is an Object
reduce	On Arrays	Anything	To reduce into given expression
pluck	On Objects	Array	Same as mapObject, only difference is the output is returned as array instead of Object
flatten	On arrays	Single set of Array	Turns into set of subarrays to single array

Table

MuleSoft MCD-Level-1 : Practice Test Description automatically generated

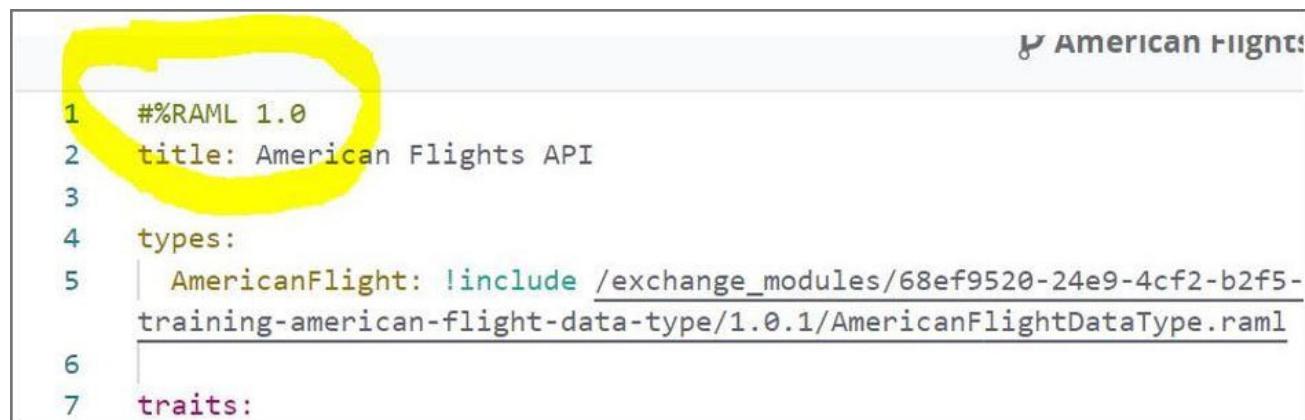
35.What are the latest specification of RAML available?

- A. 1.2
- B. 1
- C. 0.8
- D. 2

Answer: B**Explanation:**

The current version of the RAML specification is 1.0

You can check RAML version in RAML definition by referring to first comment. See highlighted part in below image.



```

1 #%RAML 1.0
2 title: American Flights API
3
4 types:
5   AmericanFlight: !include /exchange_modules/68ef9520-24e9-4cf2-b2f5-
6     training-american-flight-data-type/1.0.1/AmericanFlightDataType.raml
7 traits:

```

Graphical user interface, text, application, email

Description automatically generated

36.A Mule project contains a MySQL Database dependency. The project is exported from Anypoint Studio so it can be deployed to CloudHub.

What export options create the smallest deployable archive that will successfully deploy to CloudHub?

What export option create their smallest deployable archive that will successfully deploy to CloudHub?

A)

<input checked="" type="checkbox"/> Attach project sources
<input checked="" type="checkbox"/> Include project modules and dependencies

B)

<input type="checkbox"/> Attach project sources
<input checked="" type="checkbox"/> Include project modules and dependencies

C)

<input checked="" type="checkbox"/> Attach project sources
<input type="checkbox"/> Include project modules and dependencies

D)

<input type="checkbox"/> Attach project sources
<input type="checkbox"/> Include project modules and dependencies

A. Option A

B. Option B

C. Option C

D. Option D

Answer: B

37.What should this endpoint return? <http://dev.acme.com/api/patients?name=John&surname=Bell>

A. Patient with name as John

B. Patient with surname as bell

C. Patients with either name as John or surname as Bell

D. Patients with name as John and surname as Bell

Answer: D

Explanation:

Query parameters are a defined set of parameters attached to the end of a url. They are extensions of the URL that are used to help define specific content or actions based on the data being passed. To append query params to the end of a URL, a '?' is added followed immediately by a query parameter.

To add multiple parameters, an 'ampersand' (&) is added in between each.

Hence coming back to question, endpoint would return Patients with name as John and (and is very important here) surname as Bell

38.An SLA based policy has been enabled in API Manager.

What is the next step to configure the API proxy to enforce the new SLA policy?

A. Add new property placeholders and redeploy the API proxy

- B. Add new environment variables and restart the API proxy
- C. Restart the API proxy to clear the API policy cache
- D. Add required headers to the RAML specification and redeploy the new API proxy

Answer: D

Explanation:

Correct answer is Add required headers to RAML specification and redeploy new API proxy

MuleSoft Doc

Ref: <https://docs.mulesoft.com/api-manager/2.x/tutorial-manage-an-api>

Steps are as below:

Add the Required RAML Snippet

SLA-based rate limiting requires adding a RAML or OAS snippet to your API. This procedure demonstrates adding a RAML snippet.

Specify the client ID and secret as query parameters.

Add a section called traits: at the RAML root level to define query parameters:

traits:

- client-id-required: queryParameters: client_id:

type: string

client_secret:

type: string

Add the client-id-required trait to every method that requires these query parameters:

/users:

get:

is: [client-id-required]

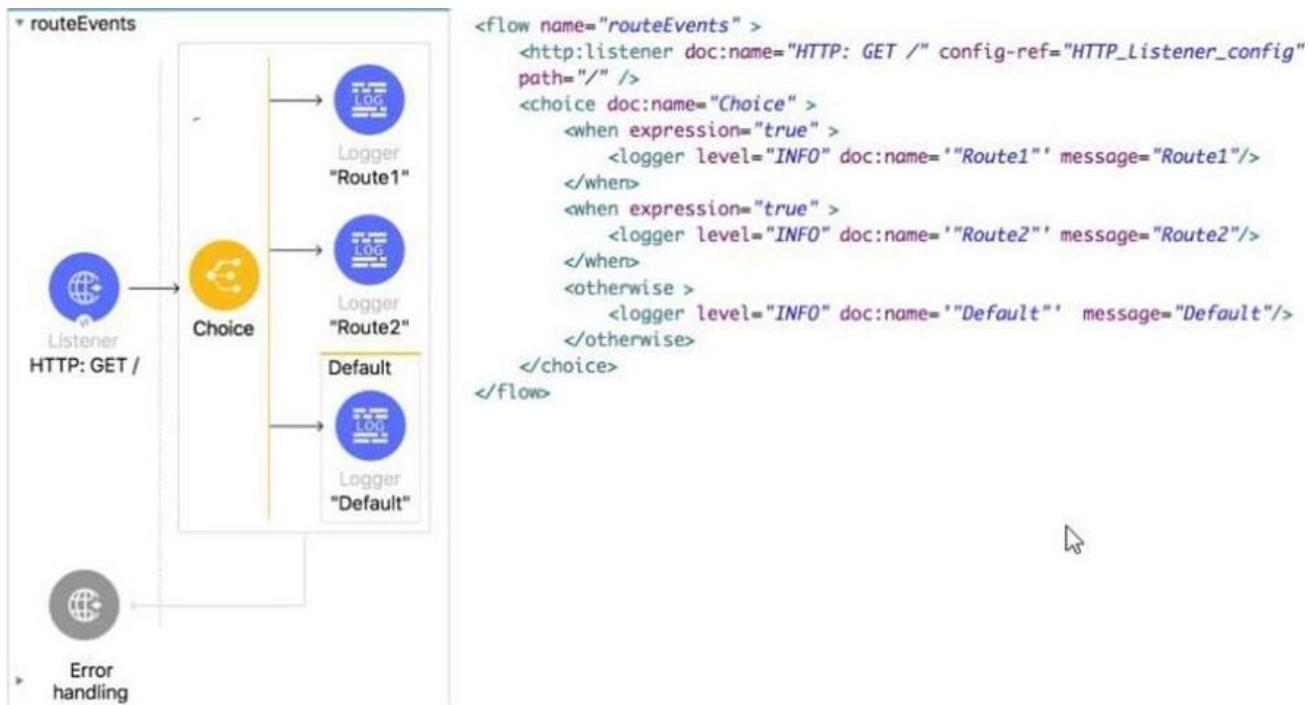
description: Gets a list of JSONPlaceholder users.

Step 2: Add the SLA Tier in API Manager

Step 3: Apply the policy and redeploy

Reference: <https://docs.mulesoft.com/api-manager/2.x/tutorial-manage-an-api>

39. Refer to the exhibits.



All three of the conditions for the Choice router are true.

What messages are written in the application log?

- A. Route1
- B. Route2
- C. Route1, Route2
- D. Route1, Route2, Default

Answer: A

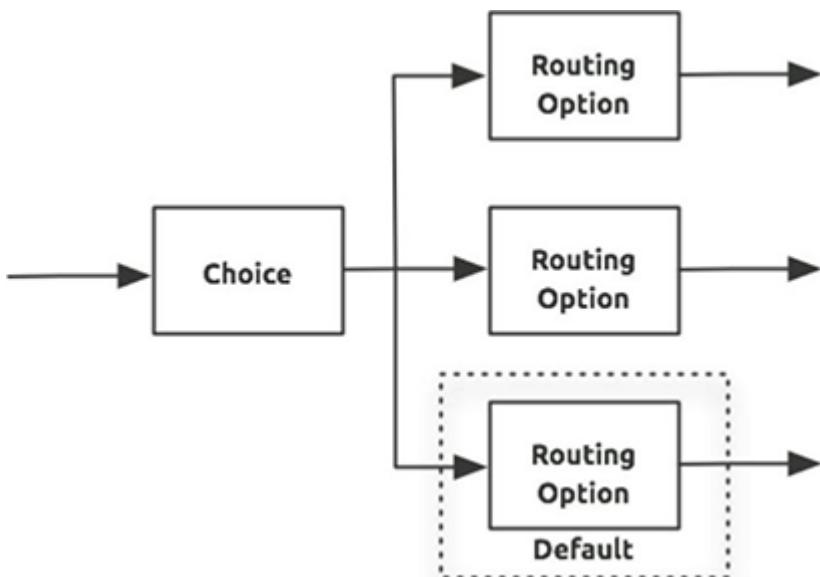
Explanation:

Only one of the routes in the Choice router executes, meaning that the first expression that evaluates to true triggers that route's execution and the others are not checked. If none of the expressions are true, then the default route executes. Hence only Route1 will be executed as it is the first expression, hence output of logger is Route1.

MuleSoft Doc

Ref: <https://docs.mulesoft.com/mule-runtime/4.3/choice-router-concept> The Choice router dynamically routes messages through a flow according to a set of DataWeave expressions that evaluate message content. Each expression is associated with a different routing option. The effect is to add conditional processing to a flow, similar to an if/then/else code block in most programming languages.

Only one of the routes in the Choice router executes, meaning that the first expression that evaluates to true triggers that route's execution and the others are not checked. If none of the expressions are true, then the default route executes.



Diagram

Description automatically generated

40. Refer to the exhibits.

```
#%RAML 1.0 DataType  
# bookDataType.raml
```

```
type: object  
properties:  
  ID?: integer  
  title: string  
  author: string  
  publisher?: string  
  year: integer  
  ISBN:  
    type: string  
    required: true
```

```
#%RAML 1.0 NamedExample  
# bookExample.raml
```

```
bookExample:  
  ID: 101  
  title: Shakespeare  
  author: Encyclopaedia Britannica  
  publisher: John Wiley & Sons  
  year: 2007  
  ISBN: "0471767840"
```

A company has defined this Book data type and Book example to be used in APIs.

What is valid RAML for an API that uses this Book data type and Book example?

A)

```
#%RAML 1.0
title: Books

Book: BookDataType.raml

/books:
  post:
    body:
      application/json:
        type: Book
        examples:
          input: BookExample.raml
  responses:
    201:
      body:
        application/json:
          example:
            message: Book added
```

B)

```
#%RAML 1.0
title: Books

Book: !include BookDataType.raml

/books:
  post:
    body:
      application/json:
        type: Book
        examples:
          input: !include BookExample.raml
  responses:
    201:
      body:
        application/json:
          example:
            message: Book added
```

C)

```
#%RAML 1.0
title: Books

types:
  Book: ABC/DataTypes/BookDataType.raml

/books:
  post:
    body:
      application/json:
        type: Book
        examples:
          input: ABC/Examples/BookExample.raml
  responses:
    201:
      body:
        application/json:
          example:
            message: Book added
```

D)

```
#%RAML 1.0
title: Books

types:
  Book: !include BookDataType.raml

/books:
  post:
    body:
      application/json:
        type: Book
        examples:
          input: !include BookExample.raml
  responses:
    201:
      body:
        application/json:
          example:
            message: Book added
```

- A. Option A
- B. Option B
- C. Option C
- D. Option D

Answer: D

41.From which application, Organization Administrators can approve/revoke/delete SLA tier access requests

- A. API Exchange
- B. API Portal
- C. API Gateway
- D. API Manager

Answer: D

Explanation:

Organization Administrators can approve/revoke/delete SLA tier access requests via API Manager only

42.A company has an API to manage departments, with each department identified by a unique deptId. The API was built with RAML according to MuleSoft best practices.

What is valid RAML to specify a method to update the details for a specific department?

A)

```
/departments:
  /deptId:
    patch:
```

B)

```
/departments:
  patch:
    /deptId:
```

C)

```
/departments:
  patch:
    queryParameters:
      deptId:
```

D)

```
/departments:  
  /{deptId}:  
    patch:
```

- A. Option A
- B. Option B
- C. Option C
- D. Option D

Answer: D

Explanation:

URI parameter is basically used to identify a specific resource or resources

* Here we want to update details about specific department, so question is asking 'How to use URI parameter' in RAML

* Correct answer is

```
/departments:  
/{deptId}:  
patch:
```

Reference: <https://docs.mulesoft.com/design-center/design-common-problems-raml-10>

43. According to MuleSoft, what is the Center for Enablement's role in the new IT operating model?

- A. Implements line of business projects to enforce common security requirements
- B. Creates and manages discoverable assets to be consumed by line of business developers
- C. Centrally manages partners and consultants to implement line of business projects
- D. Implements line of business projects to enforce common security requirements

Answer: B

Explanation:

Correct answer is Creates and manages discoverable assets to be consumed by line of business developers.

C4E does not get directly involved in projects.

44. Refer to the exhibit.



In the execution of the Scatter_Gather, the flow1 route completes after 10 seconds and the flow2 route completes after 20 seconds.

How many seconds does it take for the Scatter_Gather to complete?

- A. 0
- B. 10
- C. 20
- D. 30

Answer: C

45.What is the correct syntax for a Logger component to output a message with the contents of a 3SON Object payload?

- A. The payload is: \${payload}
- B. #["The payload is: " ++ payload]
- C. The payload is: #[payload]
- D. #["The payload is: " + payload]

Answer: B

Explanation:

Option 3 is the only corect answer as it concatenates payload with String.

Below option wont work.

#["The payload is " ++ payload]

Concatenation function expects both arguments to be string. As the question says payload is json object, this will throw error while running it. You can try this in Anypoint Studio and you will get the same result which I mentioned. hence correct answer is

The payload is: #[payload]

46.Refer to the exhibit.

Query

SQL Query Text:

```
SELECT * FROM accounts
WHERE city = attributes.queryParams.city AND
state = attributes.queryParams.state
```

Input Parameters:

```
1 {  
2   city: attributes.queryParams.city,  
3   state: attributes.queryParams.state  
4 }
```

How should the WHERE clause be changed to set the city and state values from the configured input parameters?

- A)
`WHERE city = :city AND state = :state`
- B)
`WHERE city = attributes.city AND state = attributes.state`
- C)
`WHERE city := ${city} AND state := ${state}`
- D)
`WHERE city = #[city] AND state = #[state]`

- A. Option A
- B. Option B
- C. Option C
- D. Option D

Answer: A

47.A RAML example fragment named StudentExample.raml is placed in the examples folder in an API specification project.

What is the correct syntax to reference the fragment?

- A. examples: !include StudentExample.raml
- B. examples: #import StudentExample.raml
- C. examples: !include examples/StudentExample.raml
- D. examples: #import examples/StudentExample.raml

Answer: C

Explanation:

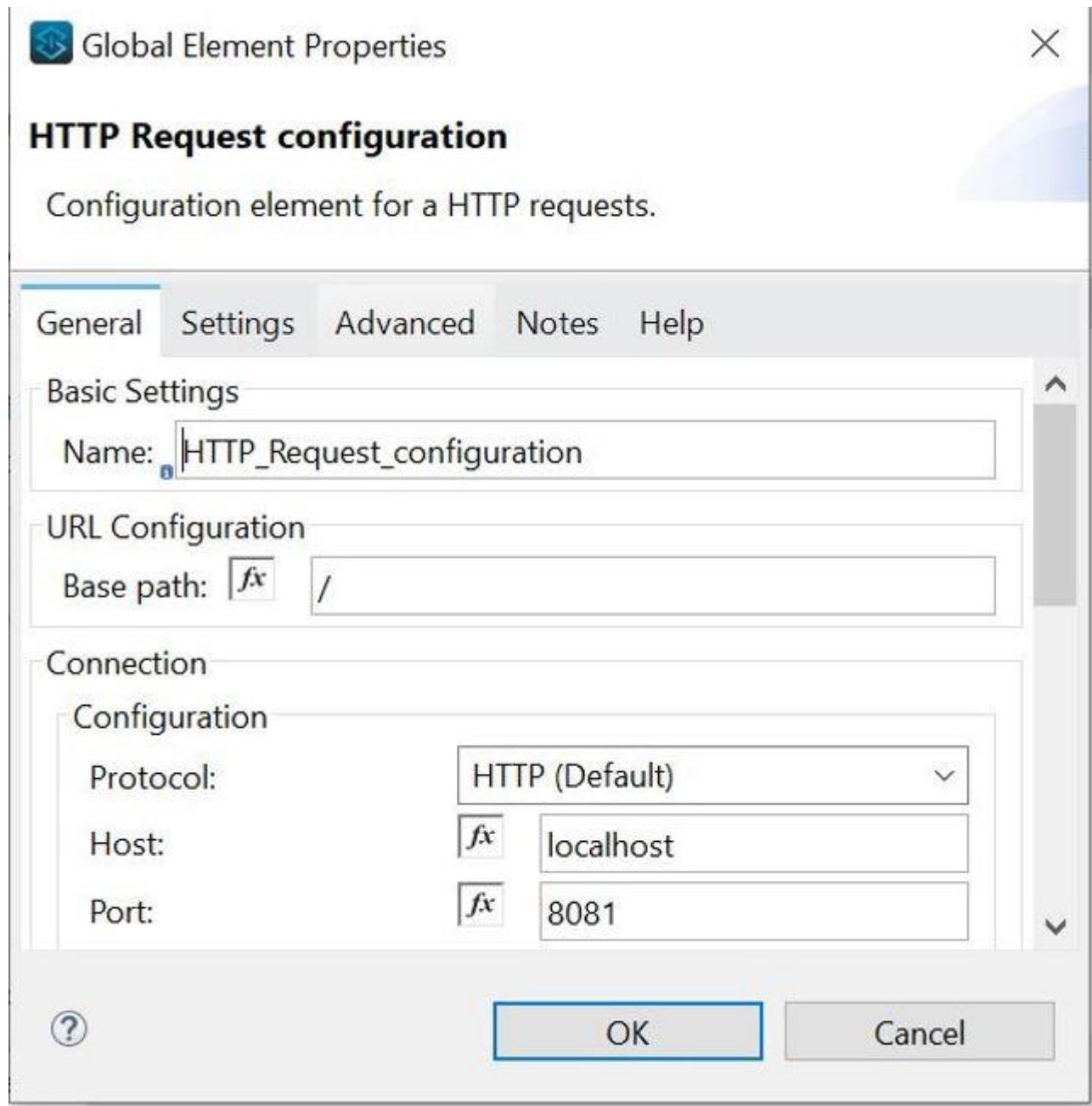
To include property. To keep the API definition concise, you can include external content, such as documentation, schemas, and frequently used patterns outside the definition itself. The parser interprets !include as if the content of the externally-hosted file or a URL were declared in-line.

To use the fragments in RAML you have to include the exact path(copy the path) of that fragment you want to use as shown below

Option 3 is the correct as correct syntax is examples: !include examples/StudentExample.raml

Reference: <https://docs.mulesoft.com/api-manager/1.x/tutorial-design-an-api>

48. Refer to the exhibits.



config.yaml

```
1 training:  
2   host: "learn.mulesoft.com"  
3   port: "8080"  
4  
5  
6
```

Mule application has an HTTP request configuration where host name is hardcoded. Organization is looking to move host and port values to configuration file.

What valid expression can be used to so that HTTP configuration can pick the value from configuration file?

- A. #[training.host]
- B. \${http.host}
- C. #{training.host}
- D. \${training.host}

Answer: D

Explanation:

Correct answer is \${training.host}

49. An API has been created in Design Center.

What is the next step to make the API discoverable?

- A. Publish the API to Anypoint Exchange
- B. Publish the API from inside flow designer
- C. Deploy the API to a Maven repository
- D. Enable autodiscovery in API Manager

Answer: A

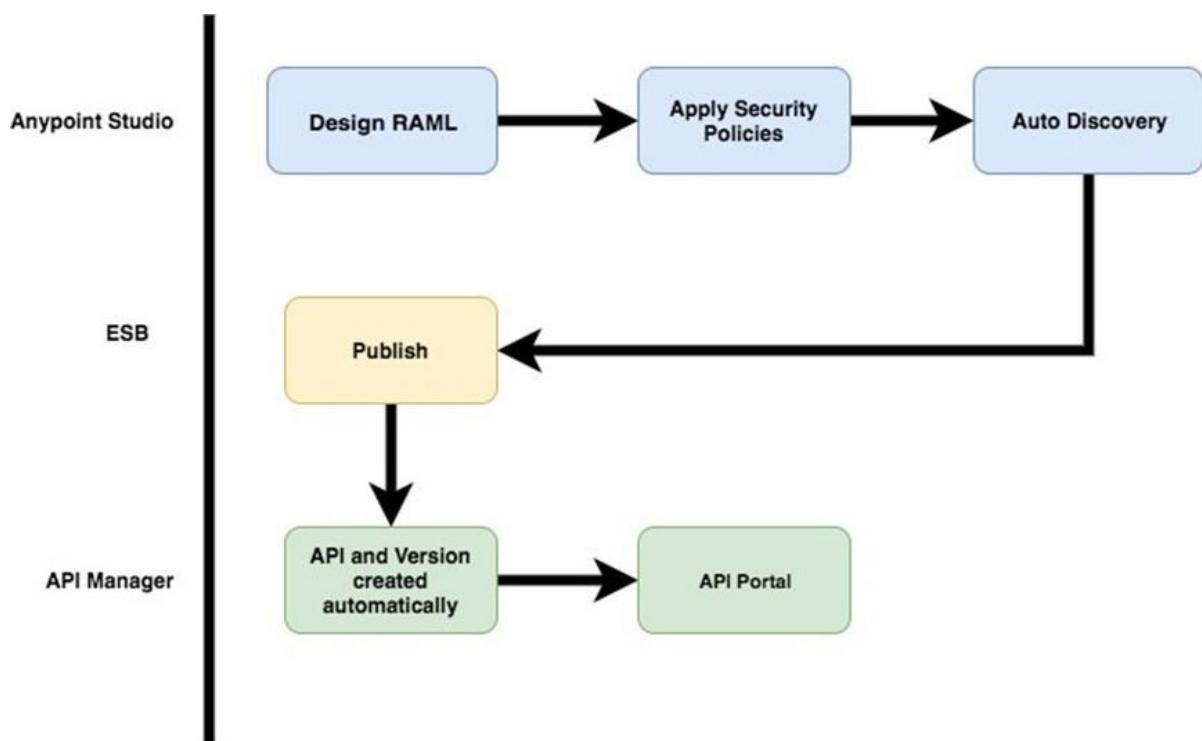
Explanation:

Correct answer is Publish the API to Anypoint Exchange

Anypoint Exchange makes this possible by making it discoverable in below ways

- 1) In private exchange for internal developers
- 2) In a public portal for external developers/clients

Here is diagram created by me to help you understand sequence:



Diagram

Description automatically generated

50.By default, what happens to a file after it is read using an FTP connector Read operation?

- A. The file is deleted from the folder
- B. The file is moved to a different folder
- C. The file stays in the same folder unchanged
- D. The file is renamed in the same folder

Answer: C

Explanation:

File is not updated when FTP read operations is performed.

MuleSoft Doc

Ref: <https://docs.mulesoft.com/file-connector/1.3/file-read>

51.How are multiple conditions used in a Choice router to route events?

- A. To route the same event to the matched route of EVERY true condition
- B. To find the FIRST true condition, then distribute the event to the ONE matched route.
- C. None of these
- D. To find the FIRST true condition, then route the same event to the matched route and ALL FOLLOWING routes

Answer: B

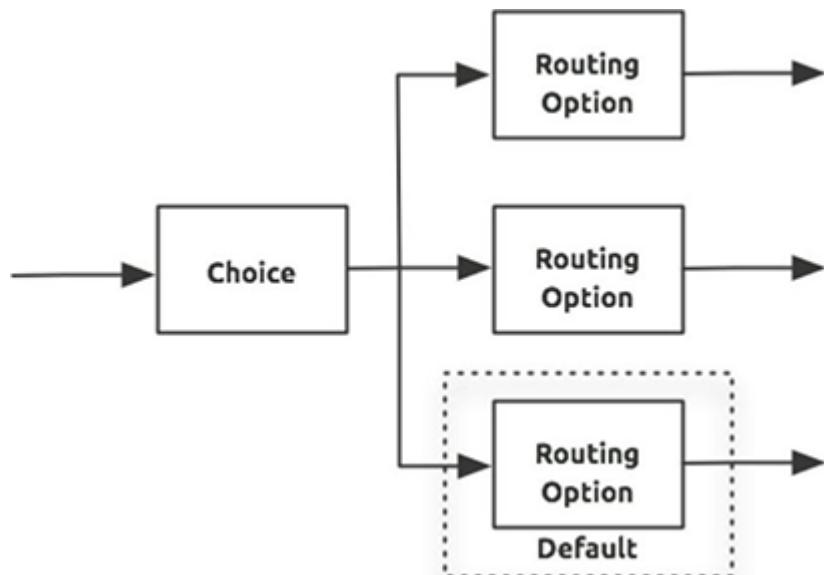
Explanation:

Choice router finds the FIRST true condition, then distribute the event to the ONE matched route.

MuleSoft Doc

Ref: <https://docs.mulesoft.com/mule-runtime/4.1/choice-router-concept> The Choice router dynamically routes messages through a flow according to a set of DataWeave expressions that evaluate message

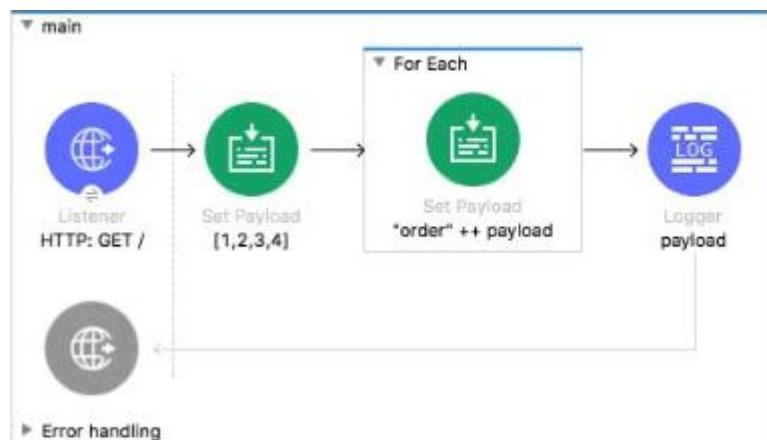
content. Each expression is associated with a different routing option. The effect is to add conditional processing to a flow, similar to an if/then/else code block in most programming languages. Only one of the routes in the Choice router executes, meaning that the first expression that evaluates to true triggers that route's execution and the others are not checked. If none of the expressions are true, then the default route executes.



Diagram

Description automatically generated

52. Refer to the exhibits.



```

<flow name="main" >
  <http:listener doc:name="HTTP: GET /" config-ref="HTTP_Listener_config" path="/" />
  <set-payload value="#[[1,2,3,4]]" doc:name="[[1,2,3,4]]" />
  <foreach doc:name="For Each" >
    <set-payload value='#[("order" ++ payload)' doc:name="order" ++ payload' />
  </foreach>
  <logger level="INFO" doc:name="payload" message="#[payload]" />
</flow>
  
```

What payload is logged at the end of the main flow?

- A. [order1, order2, order3, order4]
- B. [1, 2, 3, 4]
- C. order4

D. order1order2order3order4

Answer: B

Explanation:

This is a trick question. For Each does not modify the current payload. The output payload is the same as the input. Hence output of logger is the same payload which is set before invoking For Each scope. Hence option 2 is correct answer.

53.What DataWeave expression transforms the example XML input to the CSV output?

The screenshot shows a DataWeave editor interface. On the left, there is a code editor window containing XML input. On the right, there is a preview window showing the resulting CSV output.

XML Input:

```
<?xml version="1.0" encoding="UTF-8"?>
<sale>
    <item itemId="592" saleId="1000">
        <shipping>international</shipping>
        <desc>T-shirt Navy</desc>
        <size>L</size>
        <quantity>1</quantity>
        <price>20</price>
    </item>
    <item itemId="972" saleId="1000">
        <shipping>domestic</shipping>
        <desc>Cargo Shorts</desc>
        <size>XL</size>
        <quantity>2</quantity>
        <price>30</price>
    </item>
</sale>
```

CSV Output:

index	sale	itemName	itemPrice	item
0	1000	T-shirt Navy	20,592	
1	1000	Cargo Shorts	60,972	

A)

```
payload.sale.*item map ( (value,index) -> {
    index: index,
    sale: value.@saleId,
    itemName: value.desc,
    itemPrice: (value.price) * (value.quantity),
    item: value.@itemId
} )
```

B)

```
payload.sale.*item map ( (value,index) -> {
    index: index,
    sale: value.saleId,
    itemName: value.desc,
    itemPrice: (value.price) * (value.quantity),
    item: value.itemId
} )
```

C)

```
payload.sale.item map ( (value,index) -> {
    index: index,
    sale: value.@saleId,
    itemName: value.desc,
    itemPrice: (value.price) * (value.quantity),
    item: value.@itemId
} )
```

D)

```

payload.sale.item map ( (value,index) -> {
    index: index,
    sale: value.saleId,
    itemName: value.desc,
    itemPrice: (value.price) * (value.quantity),
    item: value.itemId
} )

```

- A. Option A
- B. Option B
- C. Option C
- D. Option D

Answer: A

Explanation:

Correct answer is as below. Attributes in the incoming xml payload are always accessed using @. Similarly *item is required as we have multiple items in the request %dw 2.0

output application/csv

```

payload.sale.*item map ((value, index) -> {
index: index,
sale: value.@saleId,
itemName: value.desc,
itemPrice: (value.quantity) * (value.price),
item: value.@itemId
} )

```

54.What DataWeave expression transforms the array a to the XML output?

SCRIPT	OUTPUT
<pre> 1 %dw 2.0 2 output application/xml 3 var a = [100, 200] 4 --- 5 6 7 8 9 10 </pre>	<pre> 1 <?xml version='1.0' encoding='UTF-8'?> 2 <trains> 3 <train> 4 <TrainNumber>100</TrainNumber> 5 </train> 6 <train> 7 <TrainNumber>200</TrainNumber> 8 </train> 9 </trains> </pre>

- A. 1.1. trains:
- 2.2. {()
- 3.3. a map ((engId, index) ->
- 4.4. train: {
- 5.5. TrainNumber: engId
- 6.6.
- 7.7. }
- 8.8.)
- 9.9. })
- B. 1.1. trains:
- 2.2. a map ((engId, index) ->
- 3.3. train: {

```
4.4. TrainNumber: engId
5.5.
6.6. }
7.7. )
C. 1.1. {(
2.2. trains:
3.3. a map ((engId, index) ->
4.4. train: {
5.5. TrainNumber: engId
6.6.
7.7. }
8.8. )
9.)}
D. 1.1. {
2.2. trains:
3.3. a map ((engId, index) ->
4.4. train: {
5.5. TrainNumber: engId
6.6.
7.7. }
8.8. )
9.)}
```

Answer: A

Explanation:

For such questions always look for Syntax:

I call it "Wrap the Map"

trains:

{(

When mapping array elements (JSON or JAVA) to XML, wrap the map operations in {(..)} -{ } are defining the object

- () are transforming each element in the array as a key/value pair

55.What is the minimum Cloudhub worker size that can be specified while deploying mule application?

- A. 0.2 vCores
- B. 0.5 vCores
- C. 1.0 vCores
- D. 0.1 vCores

Answer: D

Explanation:

Correct answer is 0.1 vCores

MuleSoft Doc

Ref: <https://docs.mulesoft.com/runtime-manager/clouduhub-architecture#clouduhub-workers>

CloudHub Workers

Workers are dedicated instances of Mule runtime engine that run your integration applications on

CloudHub. The memory capacity and processing power of a worker depends on how you configure it at the application level.

Worker sizes have different compute, memory, and storage capacities. You can scale workers vertically by selecting one of the available worker sizes:

Worker Size	Heap Memory	Storage
0.1 vCores	500 MB	8 GB
0.2 vCores	1 GB	8 GB
1 vCore	1.5 GB	12 GB
2 vCores	3.5 GB	40 GB
4 vCores	7.5 GB	88 GB
8 vCores	15 GB	168 GB
16 vCores	32 GB	328 GB

Table

Description automatically generated

56.Which one of them is NOT a flow in Mule?

- A. sync flow
- B. subflow
- C. async sub flow
- D. async flow

Answer: C

Explanation:

Correct answer is async sub flow. Rest are valid flows in Mule.

Sub flow is always synchronous.

57.Refer to the exhibits.



The Set Variable transformer is set with value `#["first": "Max", "last": "Mule"]`.

What is a valid DataWeave expression to set as the message attribute of the Logger to access the value "Max" from the Mule event?

- A. vars "customer first"
- B. "customer first"
- C. customer first
- D. vars "customer" "first"

Answer: D

58. An On Table Row Database listener retrieves data from a table that contains record_id, an increasing numerical column.

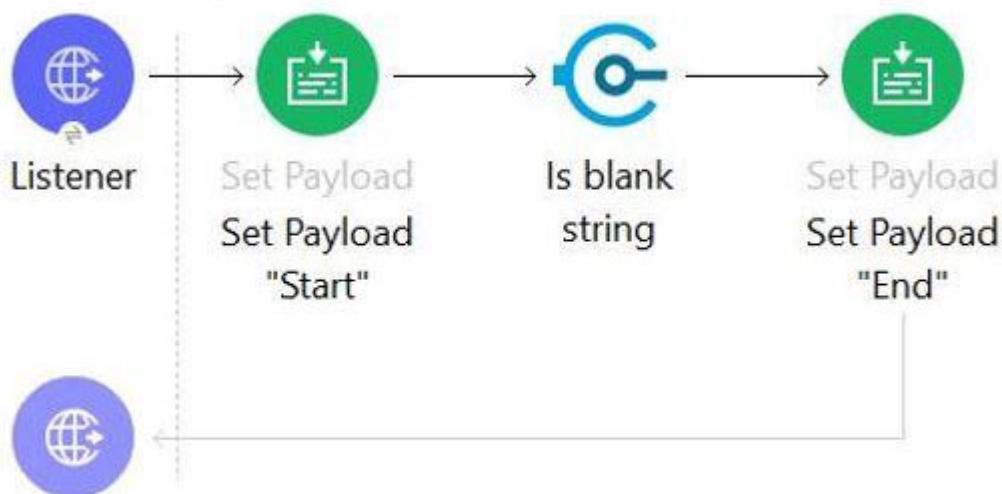
How should the listener be configured so it retrieves new rows at most one time?

- A. Set the target to store the last retrieved record_id value
- B. Set the ObjectStore to store the last retrieved record_id value
- C. Set the target to the record_id column
- D. Set the watermark column to the record id column

Answer: D

59. Refer to the exhibits.

▼ ValidateString



Message Flow Global Elements Configuration XML

```

<flow name="ValidateString" doc:id="a369617b-3785-4683-a73d-f86fa219cf73" >
    <http:listener doc:name="Listener" doc:id="be71c0ed-fc36-4bb8-bcb9-93a6499a33a4" config-ref="HTTP_Listener" />
    <set-payload value="Start" doc:name="Set Payload" doc:id="4ba91bd9-36bd-41ba-8067-d58af7d54cc4" />
    <validation:is-blank-string doc:id="e8047a53-e787-4a40-aae8-7f8e6c7888cd" value="#[payload]" />
    <set-payload value="End" doc:name="Set Payload" doc:id="19954653-ab79-40d6-9740-cd7ae25eadb9" />
</flow>
  
```

A web client submits the request to the HTTP Listener.

What response message would be returned to web client?

- A. End
- B. String is not blank
- C. No response would be sent back to client and request will get errored out in Mule
- D. Start

Answer: B

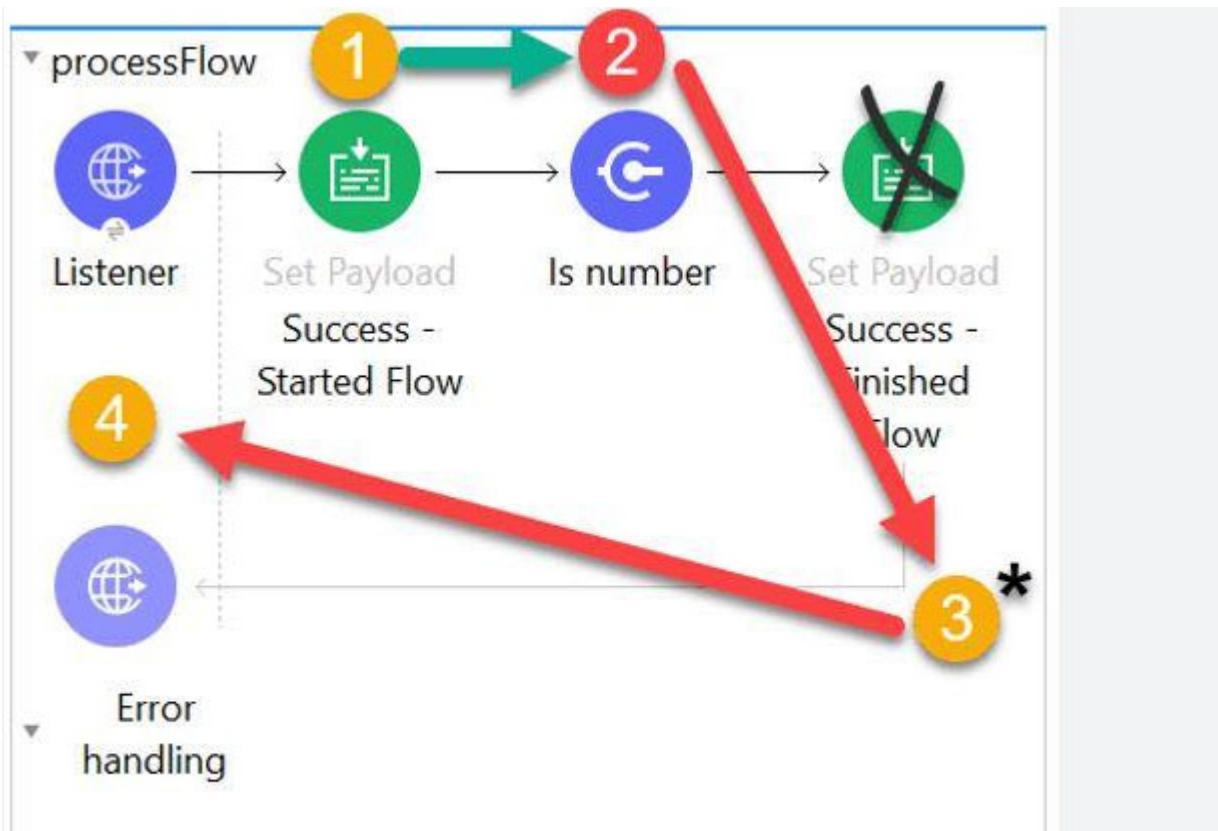
Explanation:

Correct answer is String is not blank.

Here's specifically what is happening here:

- 1) Payload is successfully set to "Start"
 - 2) The Is Blank String validator creates an Error Object because the payload is string "Start". Execution stops
 - #**[error.description]** = "String is not blank"
 - 3) Because no error handler is defined, the Mule default error handler handles the error. Remember, at its heart, the Mule Default Error handler is an error handling scope with just an on error propagate
 - 4) "String is not blank" is the error message returned to the requestor in the body of the HTTP request
- HTTP Status Code: 500

Reference Diagram:



* Note that the Mule Default Error Handler is not configurable and therefore is not visually depicted in the flow.

A picture containing diagram

Description automatically generated

60.A Batch Job scope has five batch steps. An event processor throws an error in the second batch step because the input data is incomplete.

What is the default behavior of the batch job after the error is thrown?

- A. All processing of the batch job stops.
- B. Event processing continues to the next batch step.
- C. Error is ignored
- D. Batch is retried

Answer: A

Explanation:

In case of an error, batch job completes in flight steps and stops further processing.

MuleSoft Doc

Ref: Handling Errors During Batch Job | MuleSoft Documentation

The default is all processing will stop but we can change it by Max Failed Record field.

General -> Max Failed Records: Mule has three options for handling a record-level error:

Finish processing, Continue processing and Continue processing until the batch job

accumulates a maximum number of failed records. This behavior can be controlled by Max Failed Records.

The default value is Zero which corresponds to Finish processing.

The value -1, corresponds to Continue processing.

The value +ve integer, corresponds to Continue processing until the batch job accumulates a maximum number of failed records

61.What module and operation will throw an error if a Mule events payload is not number ?

- A. Filter modules Is Number operation
- B. Validation modules Is Number operation
- C. Validation modules Is not Number operation
- D. None of these

Answer: B

Explanation:

Correct answer is Validation modules Is Number operation.

Mule 4 does not use filters anymore. The functionality provided by filters in Mule 3 can be achieved by using the Validation Module.

62.According to MuleSoft. what is the first step to create a Modern API?

- A. Gather a list of requirements to secure the API
- B. Create an API specification and get feedback from stakeholders
- C. Performance tune and optimize the backend systems and network
- D. Create a prototype of the API implementation

Answer: B

Explanation:

First step in creating Modern API is to create an API specification and get feedback from stakeholders so that any future issues can be identified at early stage thereby reducing overall delivery time

Reference: <https://developer.mulesoft.com/tutorials-and-howtos/quick-start/designing-your-first-api>

63.Which keyword do you use to create a new function in DataWeave?

- A. function
- B. fun
- C. func
- D. map

Answer: B

Explanation:

You can define your own DataWeave functions using the fun declaration in the header of a DataWeave script. Sample is as below. ----- %dw 2.0

output application/json

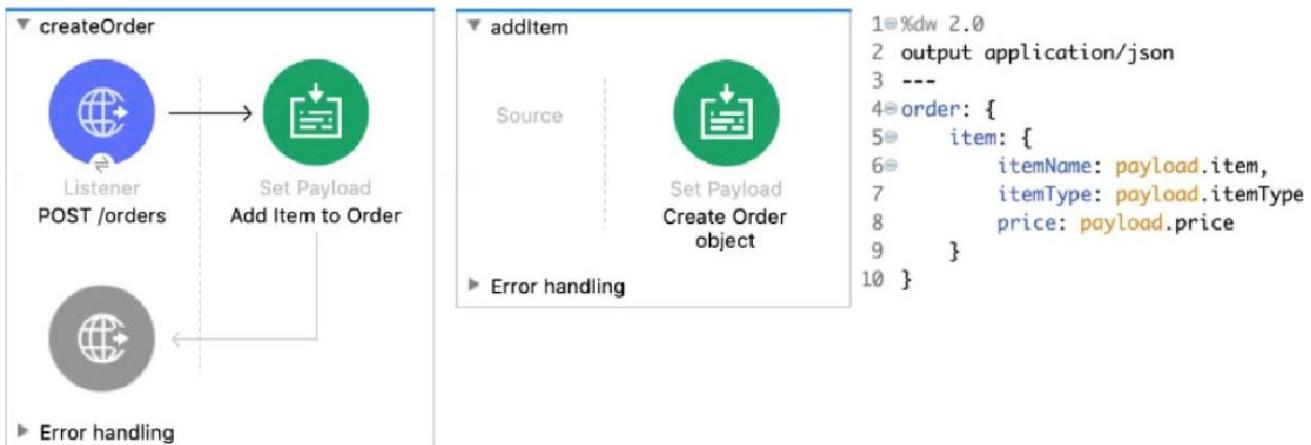
fun toUpper(aString) = upper(aString)

toUpper("hello")

MuleSoft Doc

Ref: <https://docs.mulesoft.com/mule-runtime/4.1/dataweave-functions>

64.Refer to the exhibits.



The Set Payload transformer in the addItem child flow uses DataWeave to create an order object.

What is the correct DataWeave code for the Set Payload transformer in the createOrder flow to use the addItem child flow to add a router call with the price of 100 to the order?

- A. lookup("addltern", { price: "100", item: "router", itemType: "cable" })
- B. addItem({ payload: { price: "100", item: "router", itemType: "cable" } })
- C. lookup("addltem", { payload: { price: "100", item: "router", itemType: "cable" } }) >)
- D. addItem({ price: "100", item: "router", itemType: "cable" })

Answer: C

65. An HTTP Request operation sends an HTTP request with a non-empty JSON object payload to an external HTTP endpoint. The response from the external HTTP endpoint returns an XML body. The result is stored in a target named the Result.

What is the payload at the event processor after the HTTP Request?

- A. The XML response body
- B. null
- C. The original JSON request body
- D. A non-empty Java object

Answer: C

66. Refer to the exhibit.



```

<http:request method="POST" doc:name="POST: HTTP /child" url="http://localhost:8081/child"></http:request>
</flow>

<flow name="child" >
  <http:listener doc:name="HTTP: POST /child" config-ref="HTTP_Listener_config" path="/child"/>

```

The main flow contains an HTTP Request in the middle of the flow.

The HTTP Listeners and HTTP request use default configurations.

What values are accessible to the Logger at the end of the flow after a web client submit request to <http://local:801/order?color=red>?

- A. payload
- B. payload quantity var
- C. payload color query param
- D. payload quantity var color query param

Answer: B

Explanation:

Correct answer is as below. Query parameters are replaced when external HTTP call is invoked.

payload

producer var

67.An API implementation has been deployed to CloudHub and now needs to be governed. IT will not allocate additional vCore for a new Mule application to act as an API proxy.

What is the next step to preseive the current vCore usage, but still allow the Mule application to be managed by API Manager?

- A. Register the same API implementation in Runtime Manager to connect to API Manager
- B. Modify the API implementation to use auto-discovery to register with API Manager
- C. Upload the Mule application's JAR file to the API instance in API Manager
- D. Deploy the same API implementation behind a VPC and configure the VPC to connect to API Manager

Answer: B

Explanation:

Correct answer is Modify the API implementation to use auto-discovery to register with API Manager API Autodiscovery

Configuring autodiscovery allows a deployed Mule runtime engine (Mule) application to connect with API Manager to download and manage policies and to generate analytics data. Additionally, with autodiscovery, you can configure your Mule applications to act as their own API proxy.

When autodiscovery is correctly configured in your Mule application, you can say that your application's API is tracked by (green dot) or paired to API Manager. You can associate an API in a Mule setup with only one autodiscovery instance at a given time.

MuleSoft Doc

Ref: <https://docs.mulesoft.com/api-manager/2.x/api-auto-discovery-new-concept>

68.What HTTP method in a RESTful web service is typically used to completely replace an existing resource?

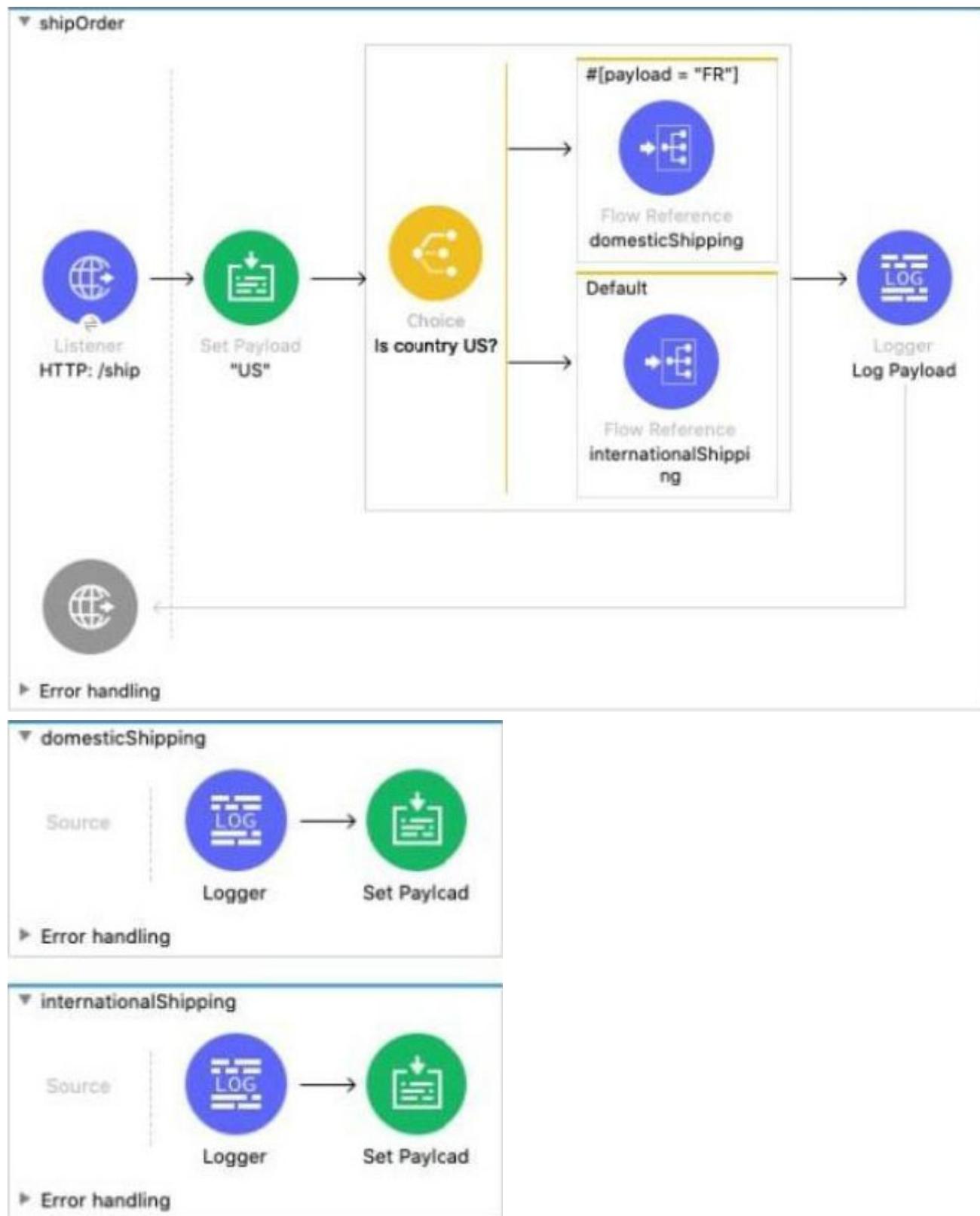
- A. GET
- B. PATCH
- C. PUT
- D. POST

Answer: C

Explanation:

PUT replaces the original version of the resource, whereas the PATCH method supplies a set of instructions to modify the resource

69. Refer to the exhibits.



In the Choice router, the When expression for the `domesticShipping` route is set to "#[payload = 'FR']".

What is logged after the Choice router completes?

- A. A string with value "FR"
- B. A DataWeave syntax error
- C. The result of the internationalShipping flow
- D. The result of the domesticShipping flow

Answer: B

70. Refer to the exhibits.

```
%RAML 1.0
title: ACME Order API
version: 1.0

/order:
  post:
    body:
      application/xml:
        example: |
          <order oid="1001">
            <customerName>Annie Point
            </customerName>
            <itemName>Electric Standing Desk
            </itemName>
            <cost>300.00</cost>
          </order>
```

The screenshot shows a web-based API testing interface. At the top, there's a header bar with a back arrow, a URL field containing "http://localhost:8081/api/...", and a forward arrow. Below the header are buttons for GET, POST, PUT, DELETE, and PATCH, with POST being selected. A dropdown menu labeled "Other methods" is open. The "Request URL" field contains "http://localhost:8081/api/order". To the right of the URL is a "SEND" button and a more options menu. Below the URL, there's a section titled "Parameters" with tabs for Headers, Body, Authorization, and Actions. Under the Body tab, it shows "Body content type: multipart/mixed" and "Editor view: Raw input". A large orange box at the bottom indicates an error: "415 Unsupported Media Type" with a timestamp of "4097.00 ms" and a "DETAILS" link. The "Raw input" section below the error message shows the XML payload from the RAML example.

The web client sends a POST request to the ACME Order API with an XML payload. An error is returned.

What should be changed in the request so that a success response code is returned to the web client?

- A. Set a request header with the name Content-Type to a value of application/octet-stream
- B. Set a request header with the name Content-Type to a value of application/xml
- C. Set a response header with the name Content-Type to a value of application/xml
- D. Set a response header with the name Content-Type to a value of application/octet-stream

Answer: B

Explanation:

The HTTP 415 Unsupported Media Type client error response code indicates that the server refuses to accept the request because the payload format is in an unsupported format. The format problem might be due to the request's indicated Content-Type or Content-Encoding, or as a result of inspecting the data directly. As per RAML input is expected in application/xml.

Hence correct answer is Set a request header with the name Content-Type to a

71. What should this endpoint return considering the API is build using standard practices?

<http://dev.acme.com/api/patients?year=2021>

- A. Patient with id 2021
- B. Patients from year 2021
- C. No patients

D. All patients

Answer: B

Explanation:

Correct answer is Patients from year 2021.

The thing to note here is that year is not a query parameter and not the uri parameter. Hence it will filter all the patients and return the ones for whom year is 2021

72.What is the difference between a subflow and a sync flow?

- A. No difference
- B. Subflow has no error handling of its own and sync flow does
- C. Sync flow has no error handling of its own and subflow does
- D. Subflow is synchronous and sync flow is asynchronous

Answer: B

Explanation:

Correct answer is Subflow has no error handling implementation where as sync flow has. Subflow A subflow processes messages synchronously (relative to the flow that triggered its execution) and always inherits both the processing strategy and exception strategy employed by the triggering flow. While a subflow is running, processing on the triggering flow pauses, then resumes only after the subflow completes its processing and hands the message back to the triggering flow.

Synchronous Flow

A synchronous flow, like a subflow, processes messages synchronously (relative to the flow that triggered its execution). While a synchronous flow is running, processing on the triggering flow pauses, then resumes only after the synchronous flow completes its processing and hands the message back to the triggering flow. However, unlike a subflow, this type of flow does not inherit processing or exception strategies from the triggering flow. This type of flow processes messages along a single thread, which is ideally suited to transactional processing

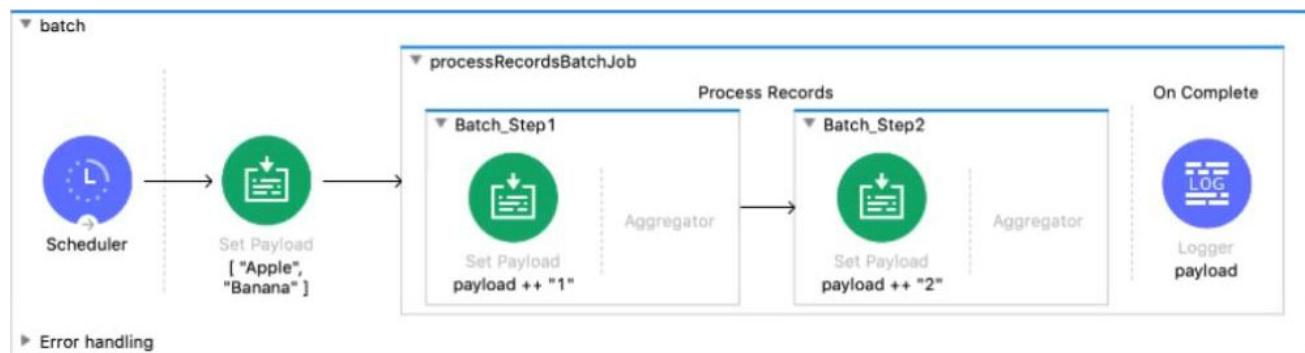
73.A web client submits a request to <http://localhost:8081?firstName=john>.

What is the correct DataWeave expression to access the firstName parameter?

- A. #[attributes.queryParams.firstName]
- B. #[message.queryParams.firstName]
- C. #[message.inboundProperties.'http.query.params'.firstName]
- D. #[attributes.'http.query.params'.firstName]

Answer: A

74.Refer to the exhibit.



The input array of strings is passed to the batch job, which does NOT do any filtering or aggregating.

What payload is logged by the Logger component?

- A. Summary report of processed records
- B. ["Apple", "Banana"]
- C. ["Apptel2", "Bananal2"]
- D. ["Apptel", "Bananal", 2]

Answer: A

75. Refer to the exhibits.

The screenshot shows the Mule Studio interface with a flow diagram and its configuration details.

Flow Diagram:

- A blue circle icon labeled "Listener HTTP; GET" is connected to a green circle icon labeled "Set Payload".
- An arrow points from the "Listener" icon to the "Set Payload" icon.
- A "Set Payload" icon has a line connecting it back to the "Listener" icon.
- A "Error handling" icon is also present in the flow.

HTTP Listener config (Global Element Properties):

- General Tab:**
 - Name: `HTTP_Listener_global_config`
 - Protocol: HTTP (Default)
 - Host: acme.com
 - Port: 8081
 - Base path: /
 - Listener interceptors: None
- Notes Tab:** Contains a note: "Attribute 'path' is required".
- Help Tab:** Available.

The Mule application implements a REST API that accepts GET requests from web clients on the URLs:
<http://acme.com/order/status> and <http://Vacme.com/customer/status>.

What path value can be set in the HTTP GE~ event source to accept web client requests from both of these URLs?

- A. *[order,customer]/status
- B. */status
- C. ?[order,customer]/status
- D. *status

Answer: B

76. Which of the below functionality is provided by zip operator in DataWeave?

- A. Merges elements of two lists (arrays) into a single list
- B. Used for sending attachments
- C. Minimize the size of long text using encoding.
- D. All of the above

Answer: A

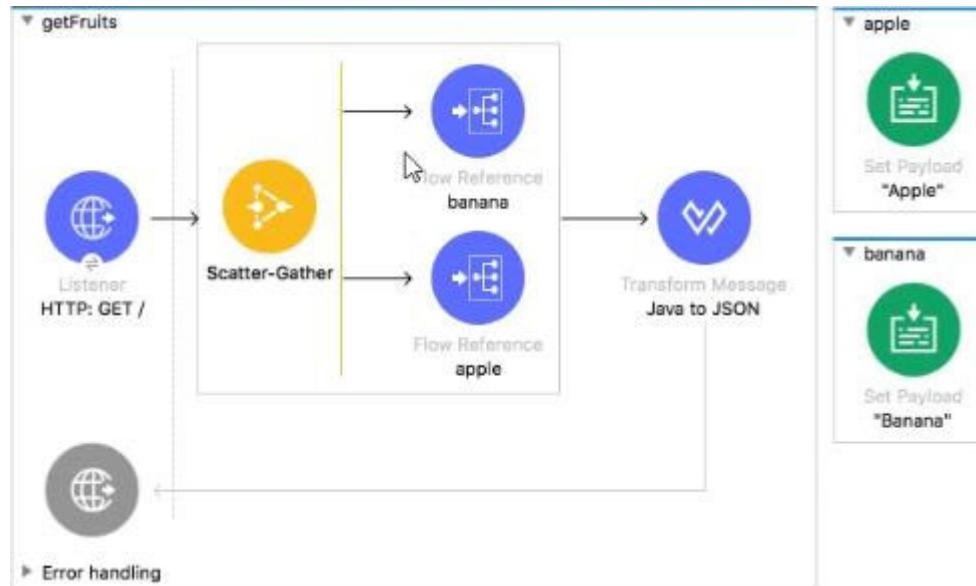
Explanation:

Correct answer is Merges elements of two lists (arrays) into a single list

MuleSoft Doc

Reference: <https://docs.mulesoft.com/mule-runtime/4.3/dw-core-functions-zip>

77. Refer to the exhibits.



```
<flow name="getFruits">
    <http:listener doc:name="HTTP: GET /" config-ref="HTTP_Listener_config" path="/" />
    <scatter-gather doc:name="Scatter-Gather">
        <route> <flow-ref doc:name="banana" name="banana"/> </route>
        <route> <flow-ref doc:name="apple" name="apple"/> </route>
    </scatter-gather>
    <sub-flow name="apple"><set-payload value="Apple" doc:name="Apple"/></sub-flow>
    <sub-flow name="banana"><set-payload value="Banana" doc:name="Banana"/></sub-flow>
```

A web client submits a request to `http://localhost:8081`.

What is the structure of the payload at the end of the flow?

A)

`['Banana', 'Apple']`

B)

```
{
    "0": "Banana",
    "1": "Apple"
}
```

C)

```
{
    "attributes": ...,
    "payload": ['Banana', 'Apple']
}
```

D)

```
{  
    "0": {  
        "attributes": ...,  
        "payload": "Banana"  
    }  
    "1": {  
        "attributes": ...,  
        "payload": "Apple"  
    }  
}
```

- A. Option A
- B. Option B
- C. Option C
- D. Option D

Answer: D

Explanation:

Scatter-Gather sends the event to each routes concurrently and returns a collection of all results. Collection is an Object of Objects. Each object contains attributes and payload from each Mule event returned from a flow. Hence option 4 is the correct answer.

78.Which of the below is not the mandatory configurations for HTTP Listener?

- A. Path
- B. Allowed methods
- C. HTTP port in Connector Configuration
- D. HTTP host in Connector Configuration

Answer: B

Explanation:

Allowed methods is an optional configuration. If nothing is specified then all HTTP methods are supported.

Rest all are mandatory.

79.A Mule project contains a DataWeave module like WebStore.dwl that defines a function named loginUser. The module file is located in the project's src/main/resources/libs/etl folder.

What is correct DataWeave code to import all of the WebStore.dwl file's functions and then call the loginUser function for the login "Todd.Pal@mulesoft.com"?

- A. 1. 1. import libs.etl
- 2. 2. ---
- 3. 3. WebStore.loginUser("Todd.Pal@mulesoft.com")
- B. 1. 1. import * from libs::etl
- 2. 2. ---
- 3. 3. WebStore::loginUser("Todd.Pal@mulesoft.com")
- C. 1. 1. import libs.etl.WebStore
- 2. 2. ---
- 3. 3. loginUser("Todd.Pal@mulesoft.com")
- D. 1. 1. import * from libs::etl::WebStore
- 2. 2. ---

3. 3. loginUser("Todd.Pal@mulesoft.com")

Answer: D

Explanation:

* To use custom modules, you need to import the module or functions you want to use by adding the import directive to the head of your DataWeave script, for example:

1) Does not identify any functions to import from the String module: import dw::core::Strings

2) To identify a specific function to import from the String module:

import camelize, capitalize from dw::core::Strings

3) To import all functions from the String module: import * from dw::core::Strings

The way you import a module impacts the way you need to call its functions from a DataWeave script. If the directive does not list specific functions to import or use * from to import all functions from a function module, you need to specify the module when you call the function from your script.

* In given scenario, it's mentioned to import all of the WebStore.dwl

So correct answer is:

Reference: <https://docs.mulesoft.com/mule-runtime/4.3/dw-functions>

80. Refer to the exhibit.

```
[WARNING] The POM for com.mulesoft.training:mock-servers:jar:1.1.2 is missing, no dependency information available
[INFO] -----
[INFO] BUILD FAILURE
[INFO] -----
[INFO] Total time: 0.253 s
[INFO] Finished at: 2018-06-14T10:52:39-07:00
[INFO] Final Memory: 190M/867M
[INFO] -----
[ERROR] Failed to execute goal on project app-server: Could not resolve dependencies for project com.mycompany:app-server:mule-application:1.0.0-SNAPSHOT: Failure to find com.mulesoft.training:mock-servers:jar:1.1.2 in https://repository.mulesoft.org/nexus-ee/content/repositories/releases-ee/ was cached in the local repository, resolution will not be reattempted until the update interval of MuleRepository has elapsed or updates are forced -> [Help 1]
```

The error occurs when a project is run in Anypoint Studio. The project, which has a dependency that is not in the MuleSoft Maven repository, was created and successfully run on a different computer.

What is the next step to fix the error to get the project to run successfully?

- A. Edit the dependency in the Mule project's pom.xml file
- B. Install the dependency to the computer's local Maven repository
- C. Deploy the dependency to MuleSoft's Maven repository
- D. Add the dependency to the MULE_HOME/bin folder

Answer: B

Explanation:

As dependency is not present in Mulesoft Maven repository, we need to install the dependency on computer's local Maven repository. Option 3 is correct choice.

81. Refer to the exhibits.

Set Payload x Console Problems

General

MIME Type

Metadata

Notes

Help

Display Name: Set Payload

Settings

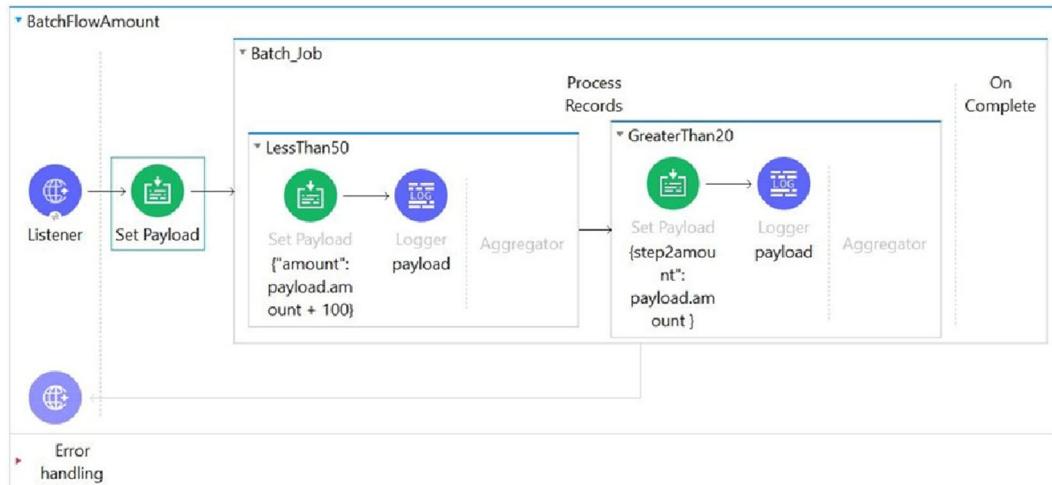
Value: #[[

```
{
    "name": "productA", "amount": 100, "price": "200"},  

    {"name": "productB", "amount": 40, "price": "400"},  

    {"name": "productC", "amount": 2, "price": "600"}  

]
```



```
<flow name="BatchFlowAmount" doc:id="083a47a4-3383-4939-a782-efc547a5bf1b" >
  <http:listener doc:name="Listener" doc:id="215b98ca-2aff-43e8-8c12-56239a47cd56" config-ref="HTTP_Listener_config" path="/batch">
    <set-payload value="#[[
8#10; {"name": "productA", "amount": 100, "price": "200"},  

8#10; {"name": "productB", "amount": 40, "price": "400"},  

8#10; {"name": "productC", "amount": 2, "price": "600"}  

8#10;]]" doc:name="Set Payload" doc:id="145a05c2-0c56-4688-92b4-0ffe51ce6c60" />
    <batch:job jobName="Batch_Job" doc:id="4836ee7a-f0c5-4717-a6d5-f6464c9c2b00" maxFailedRecords="-1">
      <batch:process-records>
        <batch:step name="LessThan50" acceptExpression="#[payload.amount < 50]" acceptPolicy="ALL">
          <set-payload value='#[{"amount": payload.amount + 100}]" doc:name='{"amount": payload.amount + 100}' />
          <logger level="INFO" doc:name="payload" doc:id="57285f6a-757d-4f3c-85e9-d2c073a23e67" message="#[payload]"/>
        </batch:step>
        <batch:step name="GreaterThan20" acceptExpression="#[payload.amount > 20]" acceptPolicy="ALL">
          <set-payload value='#[{step2amount: payload.amount }]' doc:name='{step2amount: payload.amount }' />
          <logger level="INFO" doc:name="payload" doc:id="2b07ce22-6dd1-48cb-a084-354c3f040264" message="#[payload]"/>
        </batch:step>
      </batch:process-records>
    </batch:job>
  </flow>
```

The Batch Job scope contains two Batch Steps scopes with different accept expression.

The input payload is passed to the Batch Job scope.

After the entire payload is processed by the batch job scope, what messages have been logged by the Logger component?

- A. 1.{amount=140}
- 2.{amount=102}
- 3.{step2amount=100}
- B. 1.{amount=140}
- 2.{amount=102}
- 3.{step2amount=100}
- 4.{step2amount=40}
- C. 1.{amount=140}

2.{amount=102}
 3.{step2amount=100}
 4.{step2amount=140}
 D. 1.{amount=140}
 2.{amount=102}
 3.{step2amount=100}
 4.{step2amount=140}
 5.{step2amount=102}

Answer: D

Explanation:

Lets understand this solution step by step.

1) Batch Step (Less than 50)

Accept expression for this batch step is less than 50. Hence elements which will go in this batch step are amount value 40 and 2. Hence output of logger in first batch step is

{amount=140}
 {amount=102}

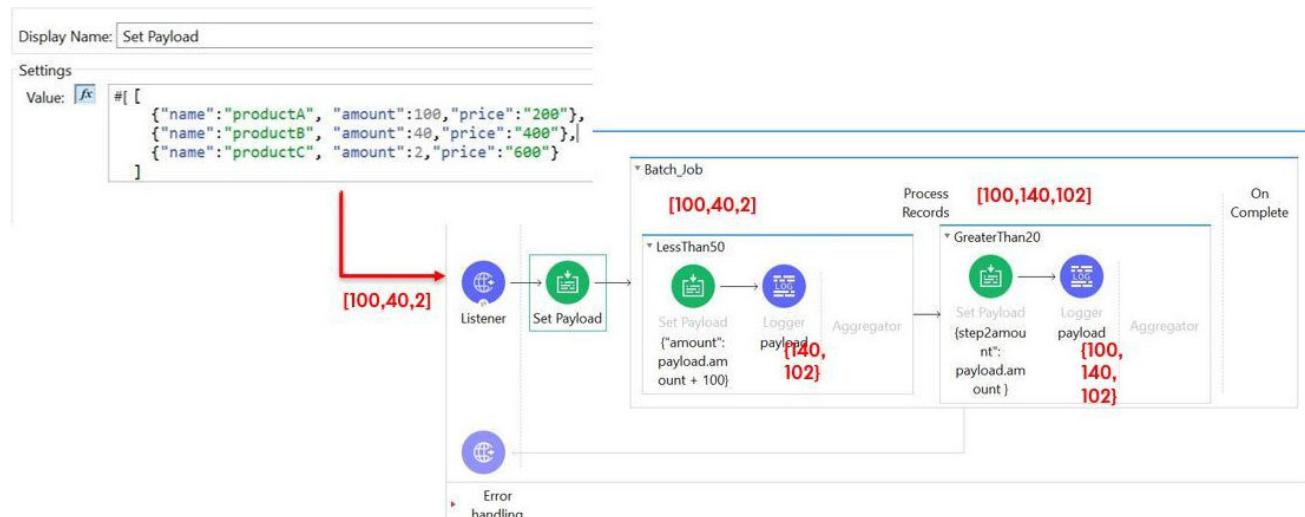
2) Batch Step (Greater than 20)

Accept condition for this batch step is greater than 20. Note that input amount values for this batch step are 100, 140 and 102 (last two values have been updated in batch step less than 50)

As all values satisfy this condition out put of second logger is

{step2amount=100}
 {step2amount=140}
 {step2amount=102}

Hence correct answer to this question is



{amount=140}
 {amount=102}
 {step2amount=100}
 {step2amount=140}
 {step2amount=102}

82.A company has defined two RAML fragments, Book Data Type and Book Example to be used in APIs.

```

1  #%RAML 1.0 DataType
2  # bookDataType.raml
3
4  "type": "object"
5  "properties":
6    id: integer
7    title: string
8    author: string
9    publisher: string
10   year: integer
11   ISBN:
12     type: string
13     required: true
14
15

#%RAML 1.0 NamedExample
# bookExample.raml

bookExample:
  ID: 101
  title: Shakespeare
  author: Encyclopedia Britanica
  publisher: John Wiley & Sons
  year: 2007
  ISBN: "0471767840"

```

What would be valid RAML to use these fragments?

- A. 1. #%%RAML 1.0
 - 2. title: Books
 - 3. types:
 - 4. Book: ABC/Examples/bookDataType.raml
 - 5. /books:
 - 6. post:
 - 7. body:
 - 8. application/json:
 - 9. type: Book
 - 10. examples:
 - 11. input: ABC/Examples/bookExample.raml
 - 12. responses:
 - 13. 201:
 - 14. body:
 - 15. application/json:
 - 16. example:
 - 17. message: Book added
- B. 1. #%%RAML 1.0
- 2.title: Books
 - 3.Book: !include bookDataType.raml
 - 4./books:
 - 5. post:
 - 6. body:

7. application/json:
8. type: Book
9. examples:
10. input: !include bookExample.raml
11. responses:
12. 201:
13. body:
14. application/json:
15. example:
16. message: Book added
C. 1.#%RAML 1.0
2.title: Books
3.Book: bookDataType.raml
4./books:
5. post:
6. body:
7. application/json:
8. type: Book
9. examples:
10. input: bookExample.raml
11. responses:
12. 201:
13. body:
14. application/json:
15. example:
16. message: Book added
D. 1.#%RAML 1.0
2.title: Books
3.Book: bookDataType.raml
4./books:
5. post:
6. body:
7. application/json:
8. type: Book
9. examples:
10. input: bookExample.raml
11. responses:
12. 201:
13. body:
14. application/json:
15. example:
16. message: Book added

Answer: D

Explanation:

* RAML file contains lot of information that could be considered as "not API-describing". Sort of "economy-class" members.

Equally important, but not necessarily part of the main RAML file.

* Through !includes, RAML allows us to build file-distributed API definitions, which is not only useful to encourage code reuse but also improves readability.

* We can create RAML fragments with such code and then include them in main RAML

project using !include like:

types:

Book: !include bookDataType.raml and

examples:

input: !include bookExample.raml

* Additionally for

Reference: INCLUDES section under <https://medium.com/raml-api/raml-101-libraries-and-datatypes-fragments-1889b2e82c27>

83.An API specification is designed using RAML.

What is the next step to create a REST Connector from this API specification?

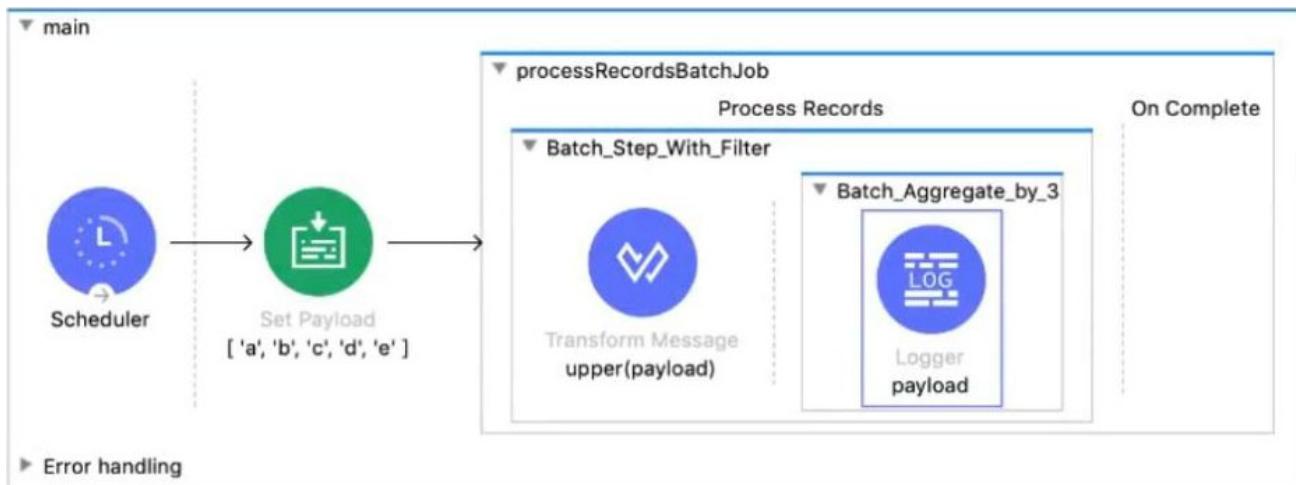
- A. Download the API specification and build the interface using APIkit
- B. Publish the API specification to Any point Exchange
- C. Implement the API specification using flow designer in Design Center
- D. Add the specification to a Mule project's src/main/resources/api folder

Answer: B

Explanation:

API Exchange creates REST connector automatically once API is published. Hence correct answer is Publish the API specification to Any point Exchange

84.Refer to the exhibits.



Error handling

```
<flow name="main" >
  <scheduler doc:name="Scheduler" > <scheduling-strategy >
    <fixed-frequency frequency="10000"/> </scheduling-strategy> </scheduler>
  <set-payload value="#[[ 'a', 'b', 'c', 'd', 'e' ]]" doc:name="["a", "b", "c", "d", "e"]" />
  <batch:job jobName="processRecordsBatchJob" >
    <batch:process-records>
      <batch:step name="Batch_Step_With_Filter"
        acceptExpression="#[not (payload contains "b")]>
        <ee:transform doc:name="upper(payload)"> <ee:message >
          <ee:set-payload ><![CDATA[%dw 2.0
            output application/json
            ---
            upper(payload)]]></ee:set-payload>
        </ee:message></ee:transform>
        <batch:aggregator doc:name="Batch_Aggregate_by_3" size="3">
          <logger level="INFO" doc:name="payload"
            message="#[output application/json --- payload]"/>
        </batch:aggregator>
      </batch:step>
    </batch:process-records>
  </batch:job>
</flow>
```

The input array of strings is processed by the batch job that processes, filters, and aggregates the values.

What is the last message logged by the Logger component after the batch job completes processing?

- A. ["A", "C", "D"], ["E"]
- B. ["E"]
- C. ["D", "E"]
- D. ["A", "C", "D", "E"]

Answer: B

Explanation:

Logs would look like:

```
INFO 2021-06-09 19:14:56,039 [[MuleRuntime].uber.06: [validationtest].batch-job-validationtestBatch_Job-work-manager @6de10f3e] [processor: validationtestFlow/processors/1/route/0/route/0/aggregator/processors/0; event: bfb751e1-9939-11eb-9f69-02053763653a]
org.mule.runtime.core.internal.processor.LoggerMessageProcessor:
```

```
[ 
  "A",
  "C",
  "D"
]
```

INFO 2021-06-09 19:15:02,486 [[MuleRuntime].uber.06: [validationtest].batch-job-validationtestBatch_Job-work-manager @6de10f3e] [processor: validationtestFlow/processors/1/route/0/route/0/aggregator/processors/0; event: bfb751e1-9939-11eb-9f69-02053763653a]
org.mule.runtime.core.internal.processor.LoggerMessageProcessor: [
"\\"E\""
]

Batch aggregator value is 3. Hence in first time it will print ["A", "C", "D"] and in next iteration it will print ["E"]

85.An API instance of type API endpoint with API proxy is created in API manager using an API specification from Anypoint Exchange. The API instance is also configured with an API proxy that is deployed and running in CloudHub.

An SLA- based policy is enabled in API manager for this API instance.

Where can an external API consumer obtain a valid client ID and client secret to successfully send requests to the API proxy?

- A. In the organization's public API portal in Anypoint Exchange, from an approved client application for the API proxy
- B. In Anypoint Studio, from components generated by APIkit for the API specification
- C. In Anypoint Studio, from components generated by Rest Connect for API specification
- D. In Runtime Manager, from the properties tab of the deployed approved API proxy

Answer: A

Explanation:

- * When a client application is registered in Anypoint Platform, a pair of credentials consisting of a client ID and client secret is generated.
- * When the client application requests access to an API, a contract is created between the application and that API.
- * An API that is protected with a Client ID Enforcement policy is accessible only to applications that have an approved contract.

86.A Mule project contains a DataWeave module called MyModule.dwl that defines a function named formatString. The module is located in the project's src/main/resources/modules folder.

What is the correct way in DataWeave code to import MyModule using a wildcard and then call the module's formatString function?

A)

```
%dw 2.0
output application/json
import * from modules.MyModule
---
MyModule.formatString( "annie point" )
```

B)

```
%dw 2.0
output application/json
import * from modules::MyModule
---
MyModule::formatString( "annie point" )
C)
%dw 2.0
output application/json
import * from modules::MyModule
---
formatString( "annie point" )
D)
%dw 2.0
output application/json
import * from modules.MyModule
---
formatString( "annie point" )
```

- A. Option A
- B. Option B
- C. Option C
- D. Option D

Answer: D

87.A Scatter-Gather processes three separate HTTP requests. Each request returns a Mule event with a JSON payload.

What is the final output of the Scatter-Gather?

- A. An Array of the three Mule event Objects
- B. An Object containing all three Mule event Objects
- C. An Array of the three JSON payload Objects
- D. An Object containing all three JSON payload Objects

Answer: B

Explanation:

Correct answer is An Object containing all three Mule event Objects

The Scatter-Gather component is a routing event processor that processes a Mule event through different parallel processing routes that contain different event processors. Each route receives a reference to the Mule event and executes a sequence of one or more event processors. Each of these routes uses a separate thread to execute the event processors, and the resulting Mule event can be either the same Mule event without modifications or a new Mule event with its own payload, attributes, and variables. The Scatter-Gather component then combines the Mule events returned by each processing route into a new Mule event that is passed to the next event processor only after every route completes successfully.

The Scatter-Gather component executes each route in parallel, not sequentially. Parallel execution of routes can greatly increase the efficiency of your Mule application and may provide more information than sequential processing.

Sample output is as below

Input **Output**

type filter text

▼ Mule Message

 ▼ Payload

 ▼ Object : Object

 ► 0 : Object

 ▼ 1 : Object

 ► payload : Array<Object>

 ► attributes : Object

 ▼ 2 : Object

 ▼ payload : Array<Object>

 airlineName : String?

 availableSeats : Number?

 departureDate : String?

 destination : String?

 flightCode : String?

 origination : String?

 planeType : String?

 price : Number?

 ► attributes : Object

 ▼ Attributes

 Void : Void

▼ Variables

 ▼ code

 String : String

Table

Description automatically generated with low confidence

MuleSoft Documentation reference: <https://docs.mulesoft.com/mule-runtime/4.3/scatter-gather-concept>

88. Refer to the exhibit.



```

<Flow name="validatePayload" >
    <http:listener doc:name="HTTP: GET /" config-ref="HTTP_Listener_config" path="/" />
    <set-payload value="Before" doc:name="Before" />
    <validation:is-null doc:name="payload" value="#[payload]" message="Validation Error"/>
    <set-payload value="After" doc:name="After" />
</flow>
    
```

What is the response to a web client request to <http://localhost:8081>?

- A. After
- B. before
- C. Validation Error
- D. null

Answer: C

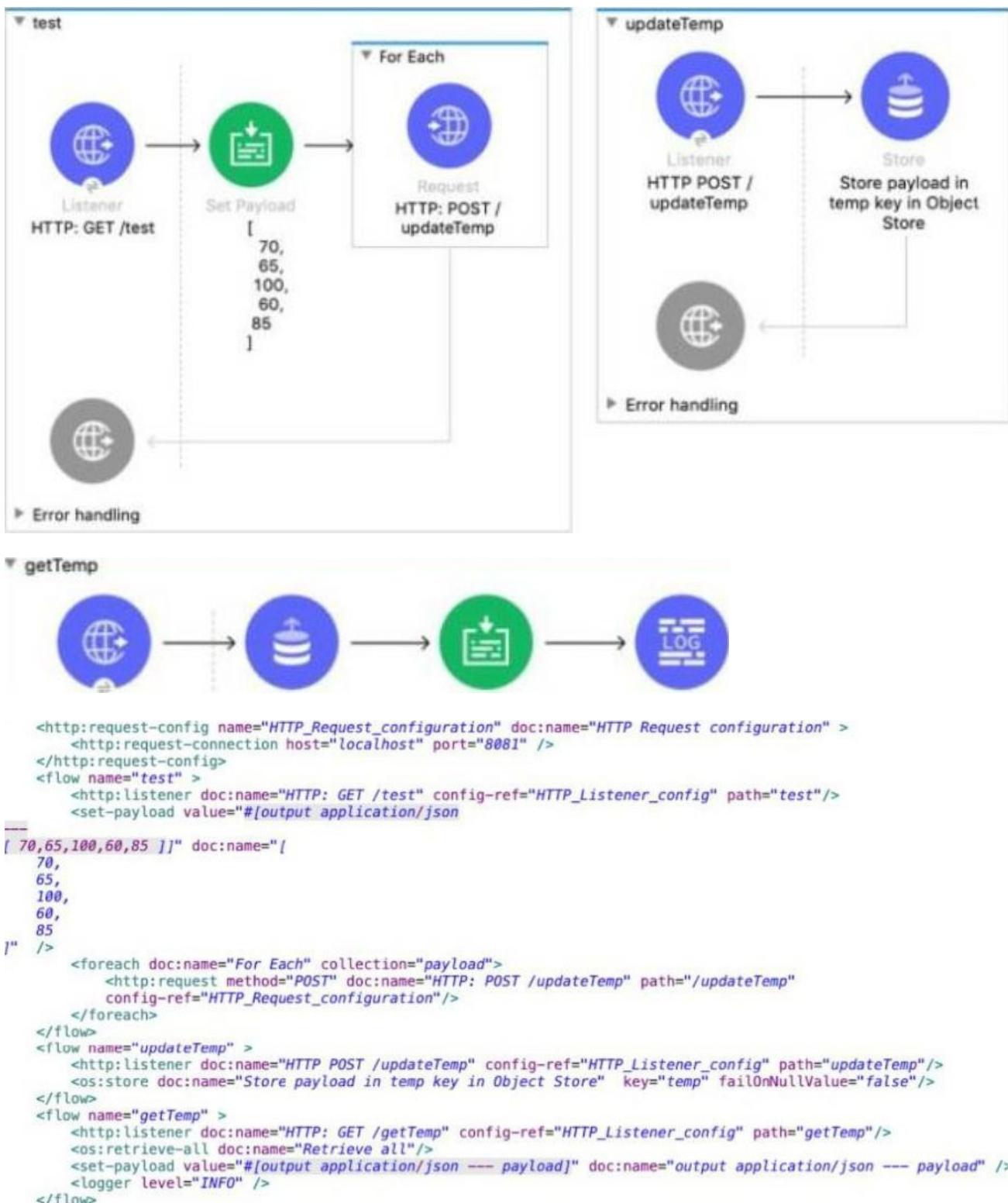
89. A web client sends one GET request to the test flow's HTTP Listener, which causes the test flow to call the updateTemp flow. After the test flow returns a response, the web client then sends a different GET request to trigger getTemp flow's HTTP Listener. The test flow is not called a second time.

What response is returned from the request to the getTemp flow's HTTP Listener?



```

<Flow name="validatePayload" >
    <http:listener doc:name="HTTP: GET /" config-ref="HTTP_Listener_config" path="/" />
    <set-payload value="Before" doc:name="Before" />
    <validation:is-null doc:name="payload" value="#[payload]" message="Validation Error"/>
    <set-payload value="After" doc:name="After" />
</flow>
    
```



A)

```
{
    "temp": [70,65,100,60,85]
}
```

B)

```
{
  "temp": "100"
}
```

C)

```
{
  "temp": "85"
}
```

D)

```
{
  "temp": 70,
  "temp": 65,
  "temp": 100,
  "temp": 60,
  "temp": 85
}
```

A. Option A

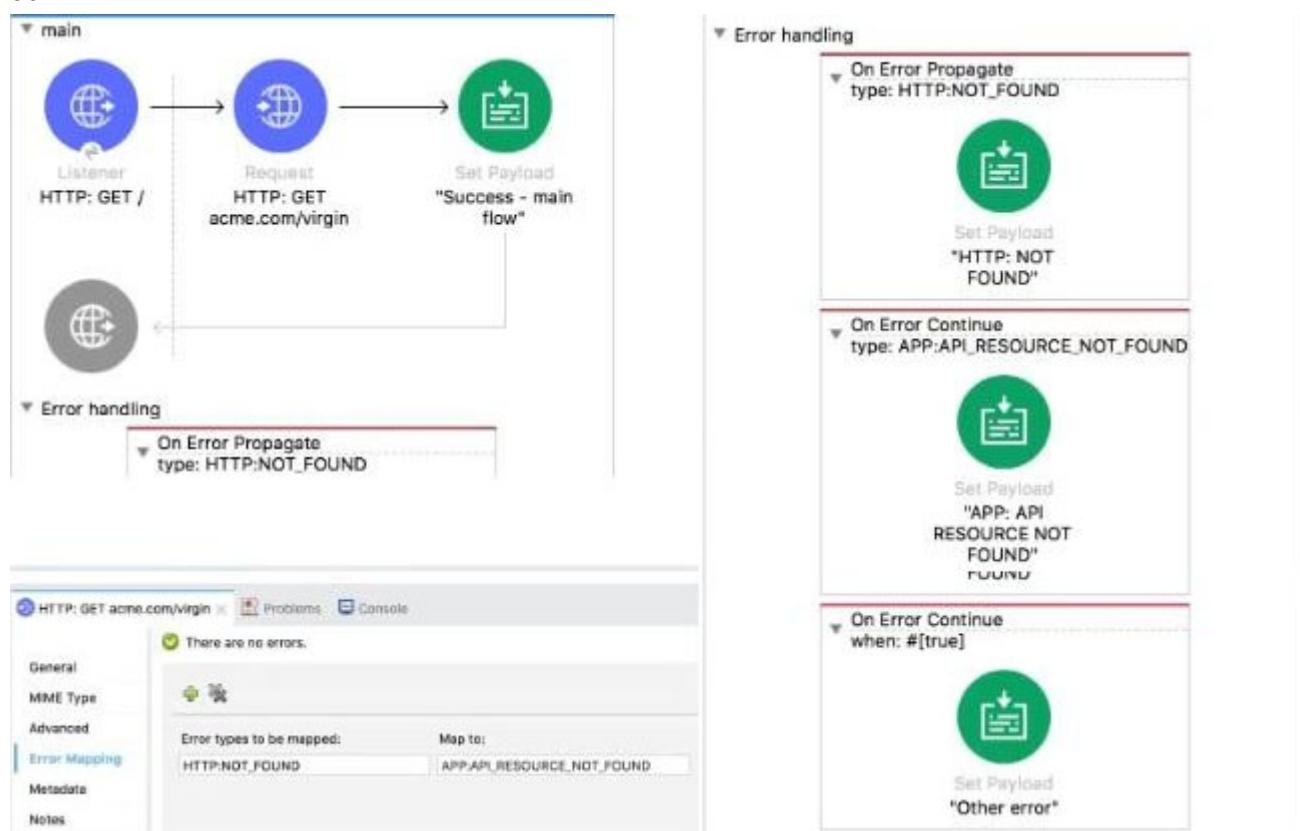
B. Option B

C. Option C

D. Option D

Answer: C

90. Refer to the exhibit.



```
<http:listener-config name="HTTP_Listener_config" doc:name="HTTP Listener config">
    <http:listener-connection host="0.0.0.0" port="8081" />
</http:listener-config>

<flow name="main">
    <http:listener doc:name="HTTP: GET /" config-ref="HTTP_Listener_config" path="/" />
    <http:request method="GET" doc:name="HTTP: GET acme.com/virgin" url="http://acme.com/virgin" />
        <error-mapping sourceType="HTTP:NOT_FOUND" targetType="APP:API_RESOURCE_NOT_FOUND" />
    </http:request>
```

The main flow is configured with their error handlers. A web client submit a request to the HTTP Listener and the HTTP Request throws an HTTP: NOT_FOUND error.

What response message is returned?

- A. APP: API RESOURCE NOT FOUND
- B. HTTP: NOT FOUND
- C. other error
- D. success - main flow

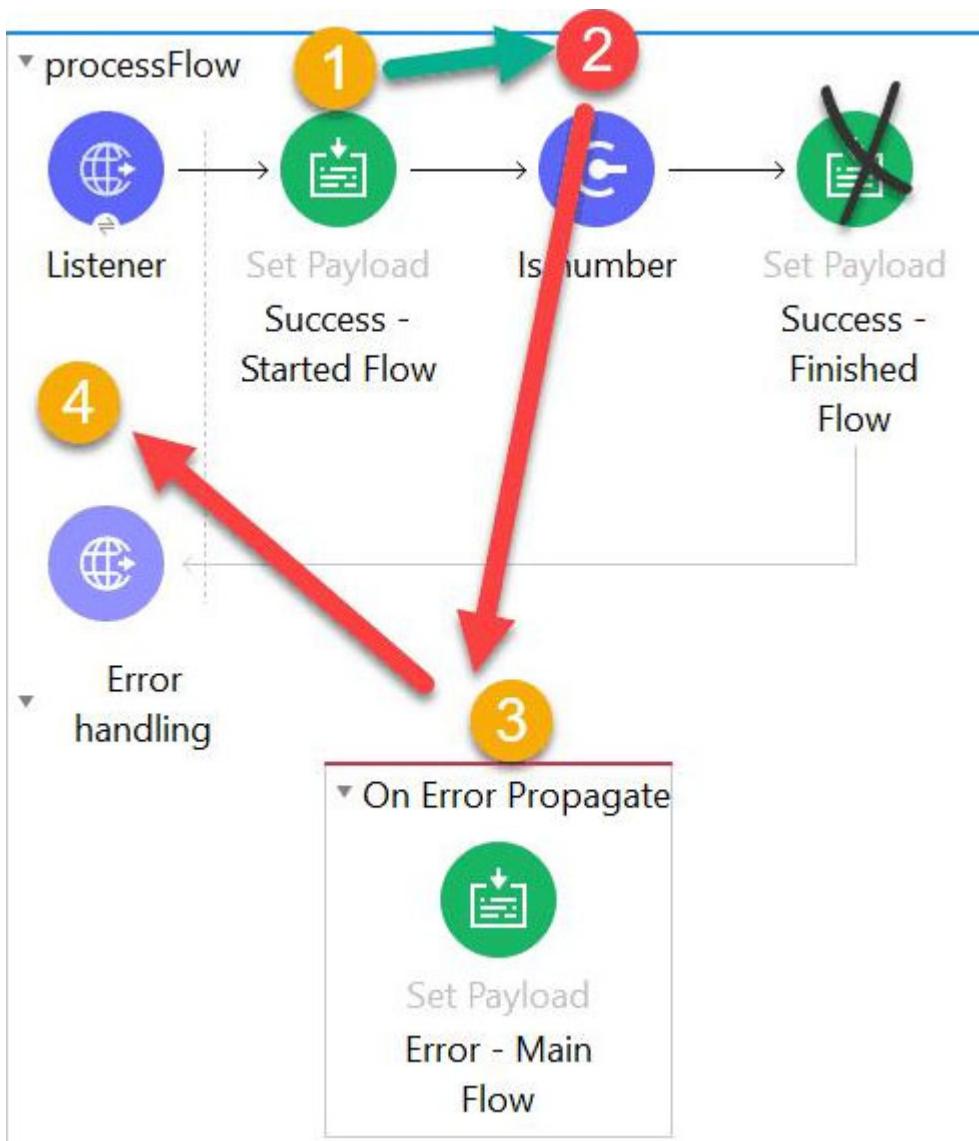
Answer: A

Explanation:

Correct answer is APP: API RESOURCE NOT FOUND

- 1) A web client submits the request to the HTTP Listener.
- 2) The HTTP Request throws an "HTTP: NOT_FOUND" error, execution halts.
- 3) The On Error Propagate error Handler handles the error. In this case, HTTP: NOT_FOUND error is mapped to custom error APP: API_RESOURCE_NOT_FOUND. This error processor sets payload to APP: API_RESOURCE_NOT_FOUND.
- 4) "APP: API_RESOURCE_NOT_FOUND." is the error message returned to the requestor in the body of the HTTP request with HTTP Status Code: 500

Reference Diagram:



Diagram

Description automatically generated with medium confidence

91.A flow contains an HTTP Listener as the event source.

What is the DataWeave expression to log the Content-Type header using a Logger component?

- A. #["Content-Type: " ++ attributes.headers.'content-type']
- B. #["Content-Type: " + headers.'content-type']
- C. #["Content-Type: " + attributes.headers.'content-type']
- D. #["Content-Type: " ++ headers.'content-type']

Answer: A

Explanation:

Option 1 is the only correct choice due to two reasons. 1) Concatenation is always with `++` sign and not with `+` sign which makes option 2 and 3 wrong 2) headers can be accessed with `attributes.headers` and not with `only headers` which makes option 4 incorrect

92.What is the object type returned by the File List operation?

- A. Object of String file names
- B. Array of String file names
- C. Object of Mule event objects
- D. Array of Mule event objects

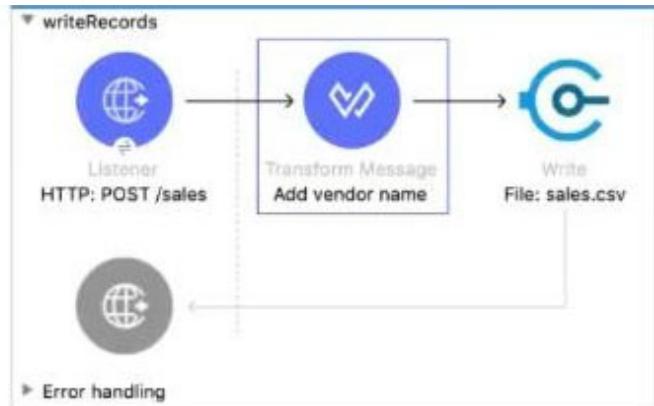
Answer: D

Explanation:

The List operation returns an array of messages in which: Each message holds the file's content in its payload. The file's attributes section carries the file's metadata (such as name, creation time, and size). The payload is empty if the element is a folder.

93. Refer to the exhibits.

```
<?xml version="1.0" encoding="UTF-8"?>
<sale>
    <transaction_id>SS-4848-44KK-4SYQ</transaction_id>
    <customer_id>anniepoint@acme.com</customer_id>
    <customer>Annie Point</customer>
    <item>Car Seat</item>
    <qty>1</qty>
    <price>59</price>
</sale>
```



```
<flow name="writeRecords" >
    <http:listener doc:name="HTTP: POST /sales" config-ref="HTTP_Listener_config"
        path="/sales" allowedMethods="POST"/>
    <ee:transform doc:name="Add vendor name" >
        <ee:message >
            <ee:set-payload ><![CDATA[%dw 2.0
                output application/json
                ---
                {vendor: "Acme"} ++ payload.sale]]>
            </ee:set-payload>
        </ee:message>
    </ee:transform>
    <file:write doc:name="File: sales.csv" path="file-store/sales.csv">
    </file:write>
</flow>
```

A web client sends sale data in a POST request to the Mule application. The Transform Message component then enriches the payload by prepending a vendor name to the sale data.

What is written to the sales.csv file when the flow executes?

- A. The enriched payload in JSON format
- B. The enriched payload in XML format
- C. The enriched payload in CSV format
- D. An error message

Answer: A

Explanation:

Reference: <https://developer.mulesoft.com/tutorials-and-howtos/quick-start/how-to-create-your-first-munit-test-in-anypoint-studio>

94.A Mule flow has three Set Variable transformers.

What global data structure can be used to access the variables?

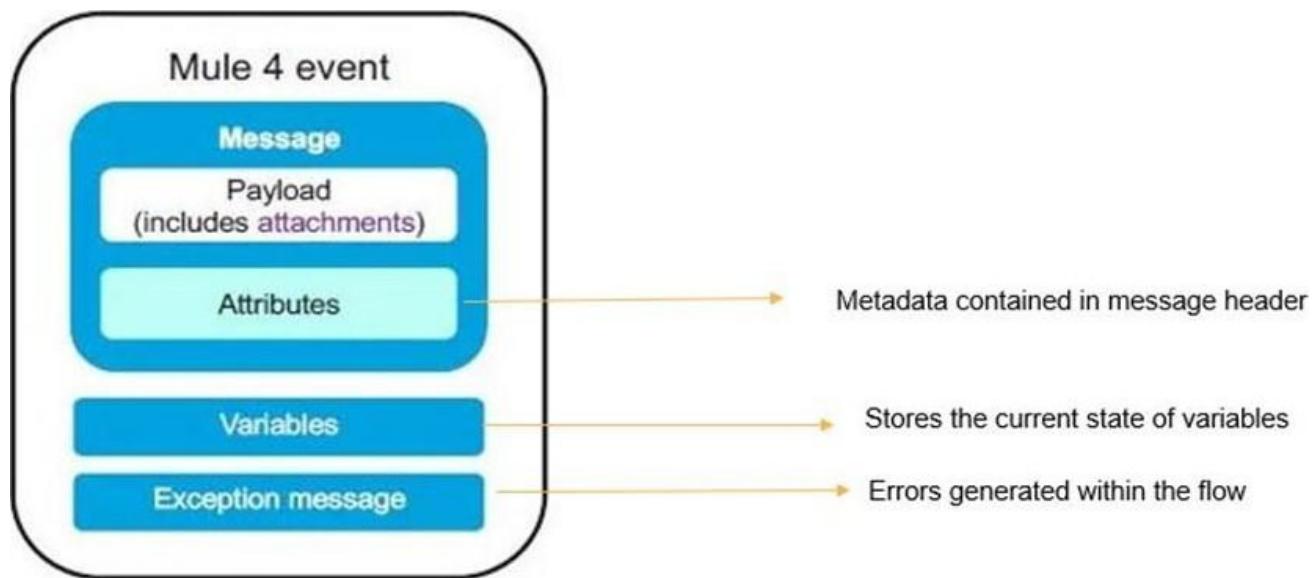
- A. Mule event attributes
- B. Mule event message
- C. Mule application properties
- D. Mule event

Answer: D

Explanation:

Mule event is correct answer. Mule event has two parts which are as follows

- 1) Message (which contains payload and attributes like headers and query/uri parameters)
- 2) Variables



Diagram

Description automatically generated

95.Which out of below is not an asset?

- A. Template
- B. Connector
- C. Exchange
- D. Example

Answer: C

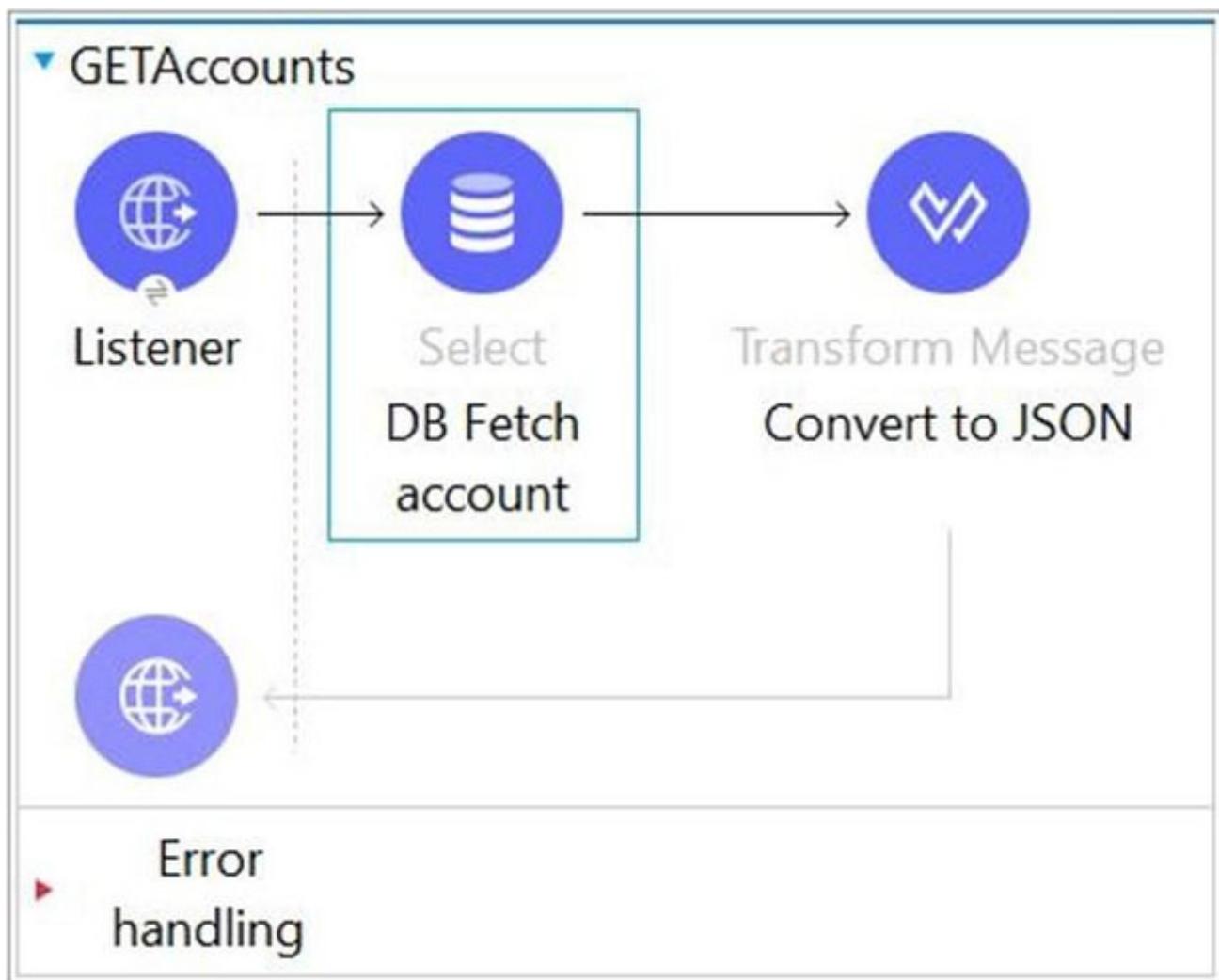
Explanation:

Exchange is the odd man out here. Rest all are type of asset

The screenshot shows the MuleSoft Exchange application. At the top left is the 'Exchange' logo. A blue button labeled 'PUBLISH NEW ASSET' is visible. On the left, a sidebar lists 'All assets' categories: All Training, Training (master), Provided by MuleSoft, Shared with me, My applications, Public portal, and Settings. Below this is a button labeled 'Try the new search'. The main area is titled 'All assets' and contains a list of asset types: All types, Connectors, Templates, Examples, Policies, API Groups (with a 'New' badge), REST APIs, SOAP APIs, HTTP APIs, API Spec Fragments, Custom, and a 'Template' item at the bottom. To the right of the asset types are several preview cards. One card for 'Connector' has a 5-star rating. Another for 'Salesforce' also has a 5-star rating. A 'Custom' card is partially visible. At the bottom of the preview cards is another 'Template' card with a 5-star rating. A large blue circle highlights the 'All assets' title and the list of asset types.

Graphical user interface, application
Description automatically generated

96. Refer to the exhibit.



Display Name: DB Fetch account

Basic Settings

Connector configuration: Database_Config

Query

SQL Query Text:

```
|
```

Input Parameters:

```
1@{
2@  'city': attributes.queryParams.city,
3@  'state': attributes.queryParams.state
4@ }
```

How should be the where clause written for the configured input parameters in such a way that it achieves below SQL query?

- A. WHERE city := \${city} AND state := \${state}
- B. WHERE city = attributes.city AND state = attributes.state
- C. WHERE city = :city AND state = :state
- D. WHERE city := city AND state := state

Answer: C

Explanation:

Correct syntax to use where clause is WHERE city = :city AND state = :state

97.A Mule project contains a DataWeave module file WebStore.dwl that defines a function named loginUser. The module file is located in the projects src/main/resources/libs/dw folder

What is correct DataWeave code to import all of the WebStore.dwl file's functions and then call the loginUser function for the login "cindy.park@example.com"?

A)

```
import libs.dw
---
WebStore.loginUser( "cindy.park@example.com" )
```

B)

```
import * from libs::dw
---
WebStore::loginUser( "cindy.park@example.com" )
```

C)

```
import libs.dw.WebStore
---
loginUser( "cindy.park@example.com" )
```

D)

```
import * from libs::dw::WebStore
---
loginUser( "cindy.park@example.com" )
```

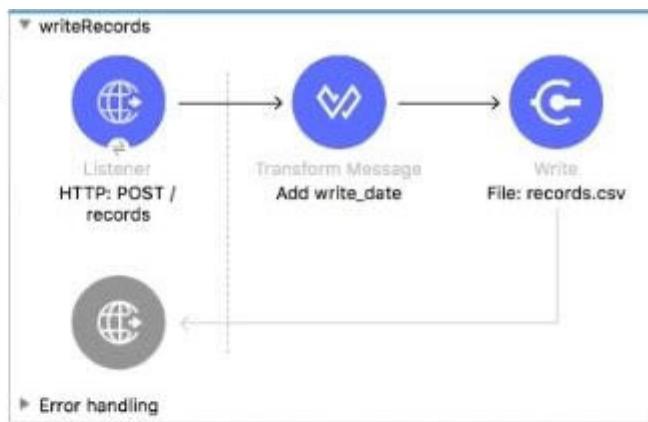
- A. Option A
- B. Option B
- C. Option C
- D. Option D

Answer: D

98. Refer to the exhibits.

Payload

```
{
  "transaction_id": "SS-4848-44KK-45YQ",
  "account_id": "KA-382-SKD44",
  "name": "Max Mule",
  "position": "sell"
}
```



```
<flow name="writeRecords" >
  <http:listener doc:name="HTTP: POST /records" config-ref="HTTP_Listener_config"
    path="/records" allowedMethods="POST"/>
  <ee:transform doc:name="Add write_date">
    <ee:message>
      <ee:set-payload><![CDATA[%dw 2.0
      output application/json
      ---
      payload ++ {"write_date": now()}]></ee:set-payload>
    </ee:message>
  </ee:transform>
  <file:write doc:name="File: records.csv" path="file-store/records.csv">
    <file:content><![CDATA[#[payload]]]></file:content>
  </file:write>
</flow>
```

What is written to the records.csv file when the flow executes?

- A. The JSON payload
- B. An error message
- C. Nothing
- D. The payload convert to CVS

Answer: A

Explanation:

Transform Message Add write_date is converting payload in JSON format and same JSON payload is available to file write processor. However, if the payload is a different format (for example, not CSV), you can place the transformation inside the Write operation to generate content that will be written without producing a side effect on the message in transit. This is not done in this case. By default, the connector writes whatever is in the message payload. Hence JSON payload will be written to file.

99. Refer to the exhibits.

```
{
  "user": "vivek.singh@acme.com",
  "items": [
    {"item": "bike", "price": 120.45, "qty": 1}
  ]
}
```



```

<flow name="main" >
  <http:listener doc:name="HTTP: POST /order/items" config-ref="HTTP_Listener_config" path="/order/items">
    <http:response>
      <http:body><![CDATA[#{output application/json --- payload}]]></http:body>
    </http:response>
  </http:listener>
  <shipping:shipping-address doc:name="Set shippingAddress target" config-ref="Shipping_Config" target="shippingAddress">
    <shipping:shipping-address-request-data><![CDATA[#{payload.user}]]></shipping:shipping-address-request-data>
  </shipping:shipping-address>
  <set-payload value="#{output application/json"
  -->
  {
    items: #[ ]
    shippingInfo: #[ ]
  }]" doc:name="Merge order items with shipping address details" />
</flow>
  
```

A Mule application is being developed to process web client POST requests with payloads containing order information including the user name and purchased items. The Shipping connector returns a shipping address for the input payloads user name. The Shipping connector's Shipping Address operation is configured with a target named `shippingAddress`.

The Set Payload transformer needs to set an item key equal to the `items` value from the original received payload and a `shippingInfo` key equal to the the `ShippingAddress` operation's response

What is a straightforward way to property configure the Set Payload transformer with the required data?

A)

```
{
  items: attributes.shippingAddress.items
  shippingInfo: payload
}
```

B)

```
{
  items: payload.items,
  shippingInfo: vars.shippingAddress
}
```

C)

```
{
  items: payload.items,
  shippingInfo: shippingAddress
}
```

D)

```
{
    items: vars.shippingAddress.items
    shippingInfo: payload
}
```

- A. Option A
- B. Option B
- C. Option C
- D. Option D

Answer: B

100. Refer to the exhibits.



The main flow contains a Flow Reference component configured to call the child flow.

What part(s) of a Mule event passed to the Flow Reference component are available in the child flow?

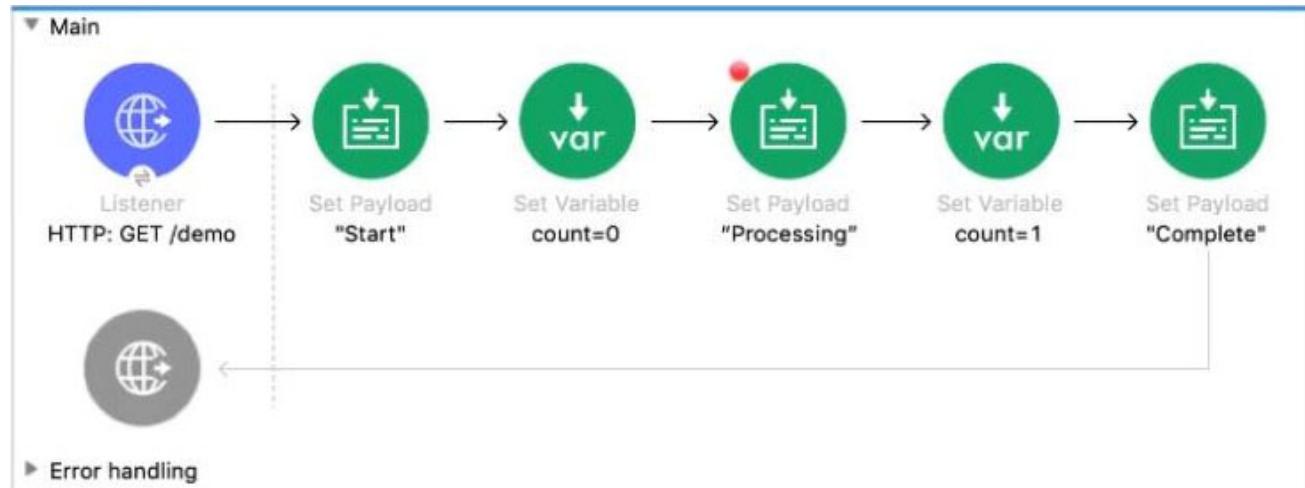
- A. The payload and all attributes
- B. The payload and all variables

C. The entire Mule event

D. The payload

Answer: B

101. Refer to the exhibit.



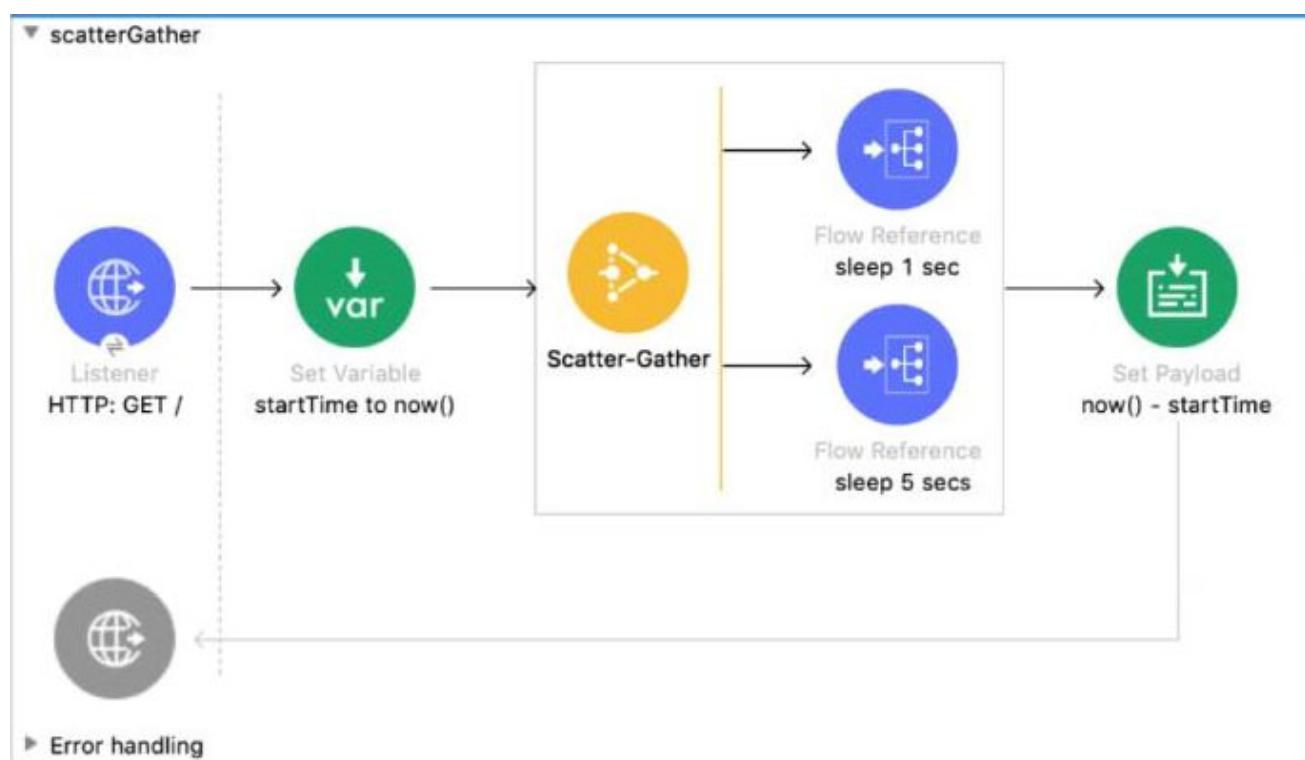
The Mule application is debugged in Any point Studio and stops at the breakpoint.

What is the value of the payload displayed in the debugger at this breakpoint?

- A. 0
- B. "Processing"
- C. "Start"
- D. Complete"

Answer: C

102. Refer to the exhibit.



In the execution of the Scatter-Gather, the "steep 1 sec" Flow Reference takes about 1 second to complete, and the "sleep 5 sees" Row Reference takes about 5 seconds to complete.
About how many seconds does it take from the time the Scatter-Gather is called until the Set Payload transformer is called?

- A. 0
- B. 1
- C. 5
- D. 6

Answer: C

103.A Mule application contains a global error handler configured to catch any errors.
Where must the global error handler be specified so that the global error handler catches all errors from flows without their own error handlers?

- A. A configuration properties file
- B. Nowhere, the global error handler is automatically used
- C. A global element
- D. The pom.xml file

Answer: C

Explanation:

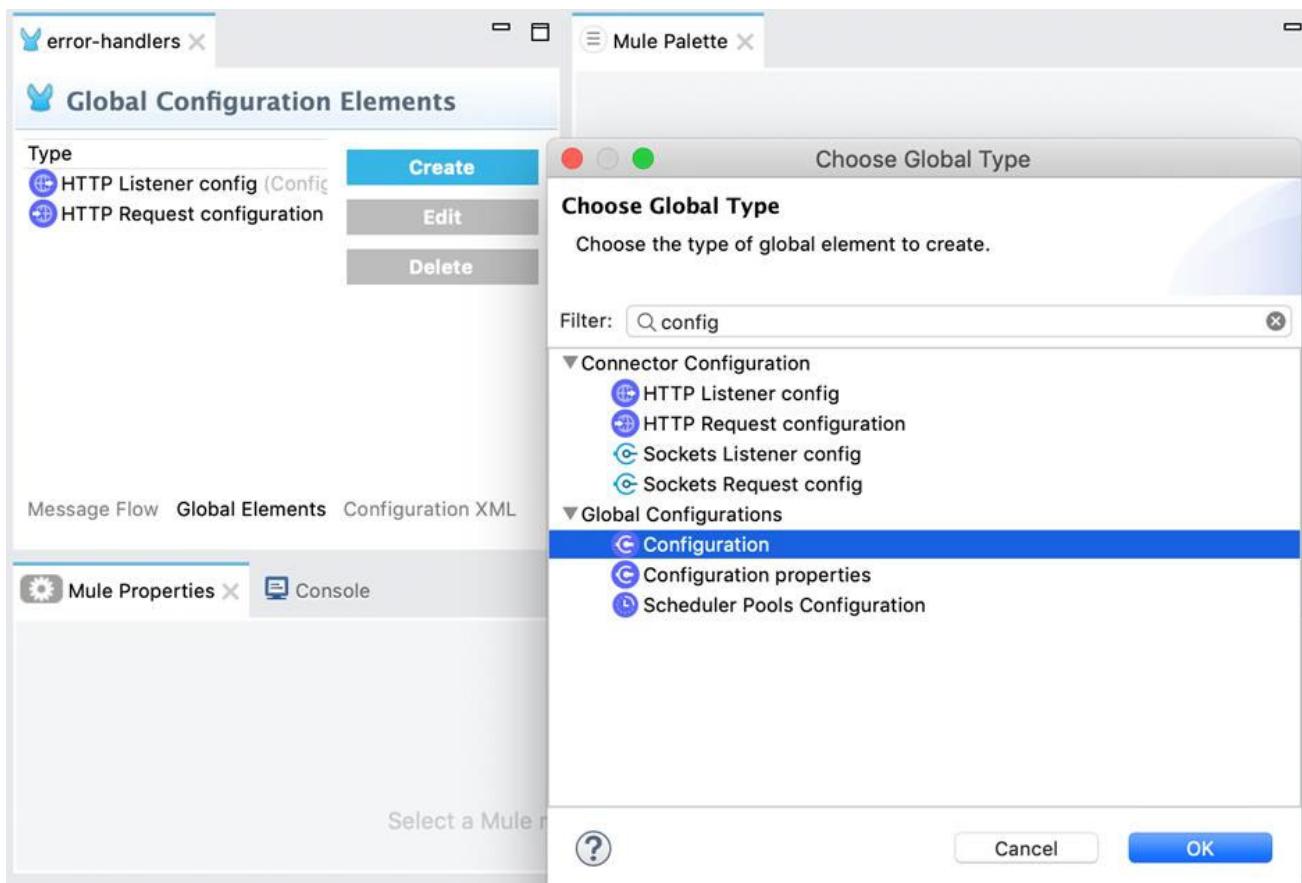
Correct answer is A global element

Global error handlers are to be created in global element.

Quick note to remember here is Global error handlers come in to picture only when there are no error handlers specified as flow level.

Steps to create Global error handler

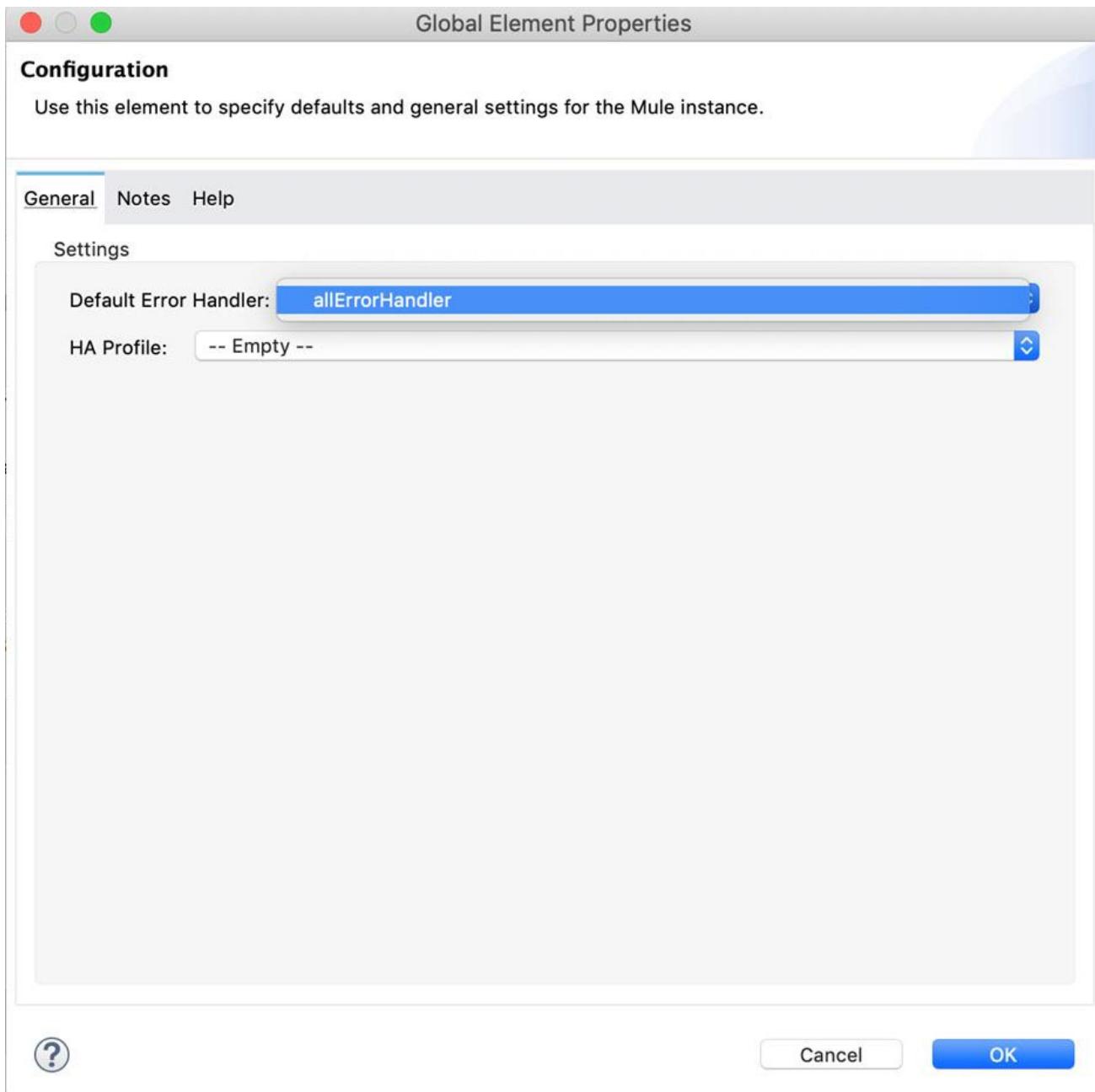
- 1) Click Global Elements to open Global Configuration Elements. Global Elements is MuleSoft MCD-Level-1: Practice Test located below the Studio canvas
- 2) In Global Configuration Elements, click Create to open the Choose Global Type dialog



Graphical user interface, text, application, chat or text message

Description automatically generated

- 3) From the dialog, select Global Configuration - Configuration, and then click OK to open the Configuration dialog.



Graphical user interface, text, application, email

Description automatically generated

- 4) From the select Configuration dialog, select allErrorHandler for the Default Error Handler field, and click OK.

104.A Mule application's HTTP Listener is configured with the HTTP protocol. The HTTP listeners port attribute is configured with a property placeholder named http.port. The mule application sets the http.port property placeholder's value to 9090

The Mule application is deployed to CloudHub without setting any properties in the Runtime manager Properties tab and a log message reports the status of the HTTP listener after the Mule application deployment completes.

After the mule applications is deployed, what information is reported in the worker logs related to the port

on which the Mule application's HTTP Listener listens?

- A. The HTTP Listener is listening on port 80
- B. The HTTP Listener is listening on port 9090
- C. The HTTP Listener is listening on port 8081
- D. The HTTP Listener failed to bind to the port and is not listening for connections

Answer: C

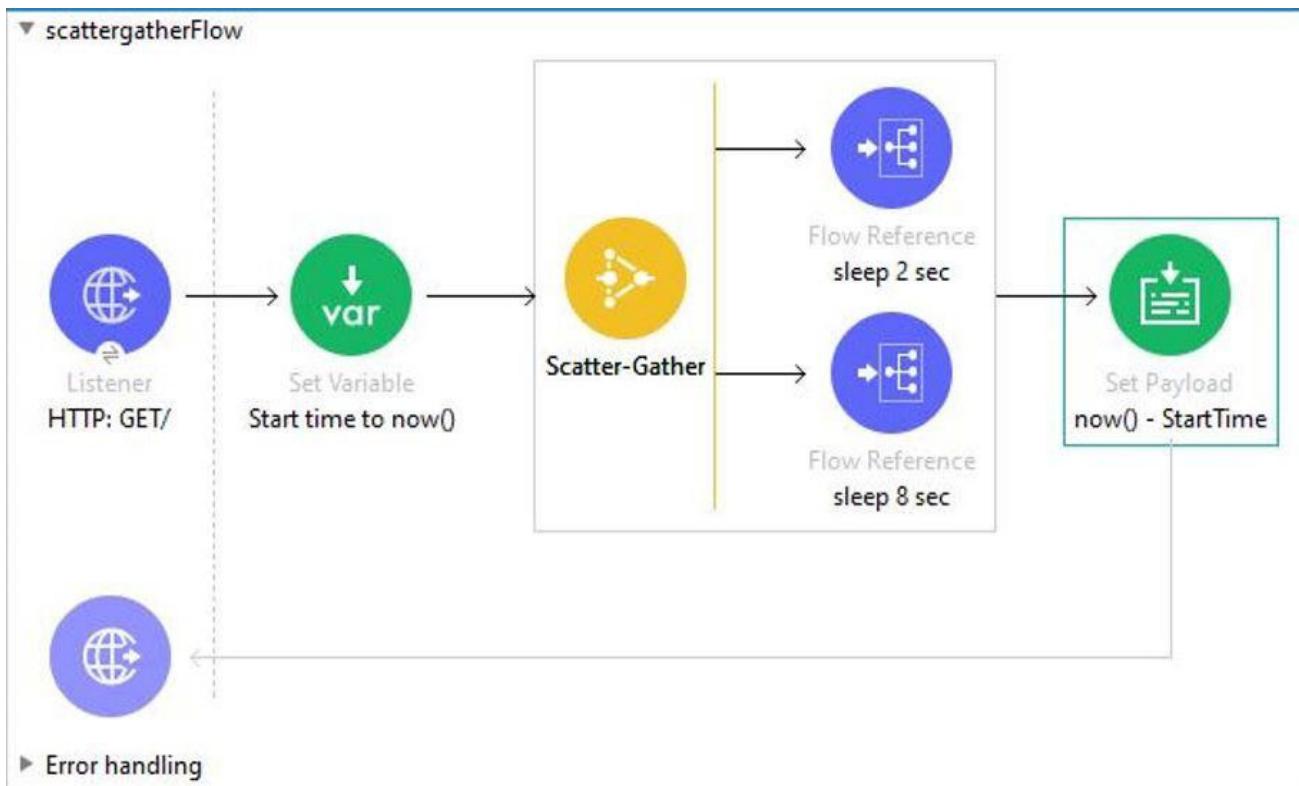
Explanation:

Cloudhub expose services on port 8081 and override value in http.port with this one . Sample log in Runtime Manager is below

21:15:53.148 08/08/2021 Worker-0 ArtifactDeployer.start.01 INFO Listening for connections on 'http://0.0.0.0:8081'

105.In the execution of scatter gather, the "sleep 2 sec" Flow Reference takes about 2 sec to complete, and the "sleep 8 sec" Flow Reference takes about 8 sec to complete.

About how many sec does it take from the Scatter-Gather is called until the "Set Payload" transformer is called?



- A. 8
- B. 0
- C. 2
- D. 10

Answer: A

Explanation:

Correct answer is 8 as events are processed in parallel in case of scatter gather router

106.What is the main purpose of flow designer in Design Center?

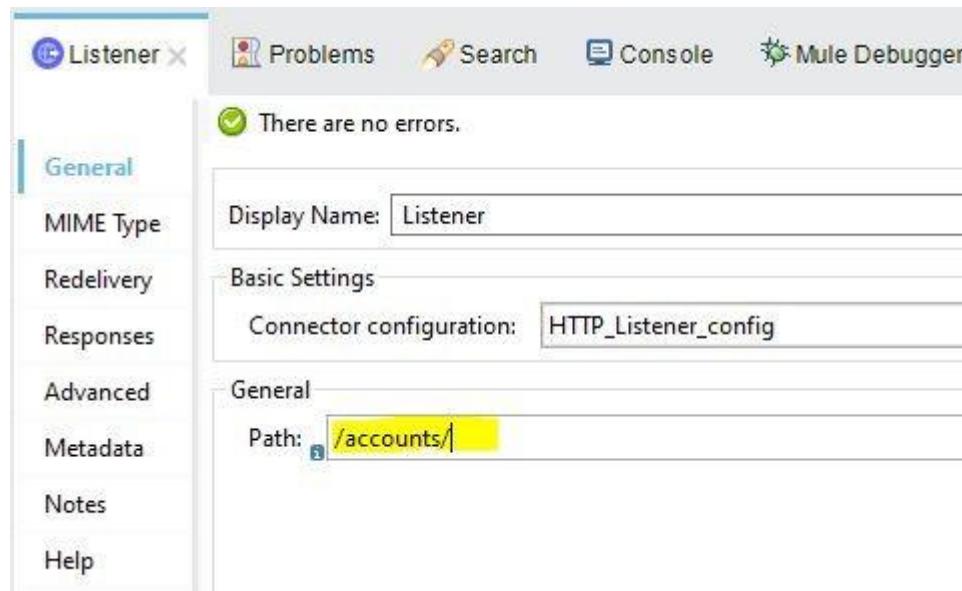
- A. To design and develop fully functional Mule applications in a hosted development environment
- B. To design API RAML files in a graphical way
- C. To design and mock Mule application templates that must be implemented using Anypoint Studio
- D. To define API lifecycle management in a graphical way

Answer: A

Explanation:

Its primary function is to design and develop fully functional Mule applications in a hosted development environment.

107.What is the correct Syntax to add a customer ID as a URI parameter in the HTTP listener's path attribute?



- A. #[customerID]
- B. \${customerID}
- C. {customerID}
- D. (customerID)

Answer: C

Explanation:

URL parameters are always accessed using {} like => {customerID}

108.Which of the below activity doesn't support parallel execution?

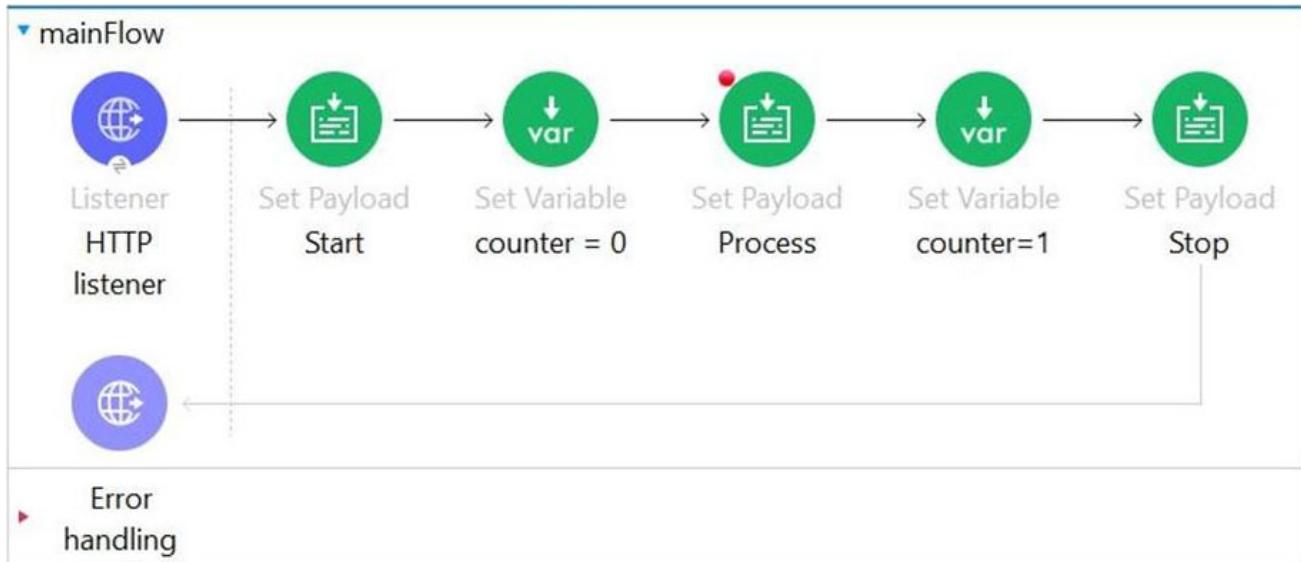
- A. Scatter-Gather Router
- B. First Successful Router
- C. Parallel For Each
- D. Batch job

Answer: C

Explanation:

The First Successful router iterates through a list of configured processing routes until one of the routes executes successfully. This is sequential execution. In all other options mentioned in the question ,we can achieve parallel execution.

109.Refer to the exhibits.



The mule application is debugged in Anypoint Studio and stops at the breakpoint as shown in below exhibit.

What is the value of the payload displayed in the debugger at this breakpoint?

- A. Start
- B. Process
- C. Finished
- D. Payload is always empty at the breakpoint

Answer: A

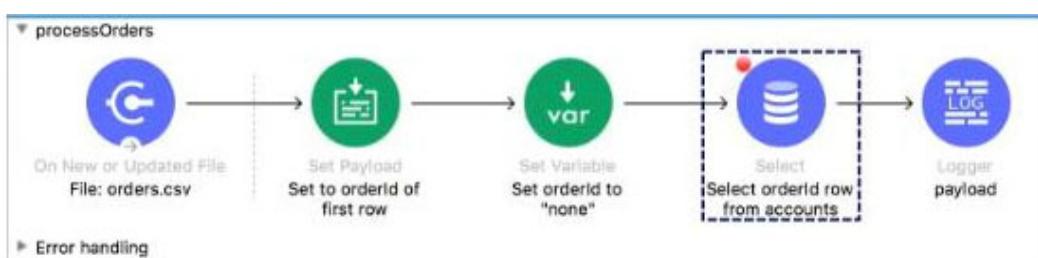
Explanation:

Correct answer is Start as that is the payload set before

110.Refer to the exhibits.

orders.csv

```
orderId,account
100, partnerA
101, acme.com
102, mybank.com
103, onlineSales
```



The orders.csv file is read, then processed to look up the orders in a database. The Mule application is debugged in Any point Studio and stops at the breakpoint.

What is the payload shown in the debugger at this breakpoint?

- A. "none"
- B. The entire CSV file
- C. The database response
- D. 100

Answer: D

111.Refer to the exhibit.



All three of the condition for the Choice router are true.

What log messages are written?

- A. Route 1
- B. Route2
- C. Route1, Route2
- D. Route1, Route2, Default

Answer: A

112.Refer to the exhibit.



The main flow contains a Flow Reference for the child flow.

What values are accessible in the child flow after a web client submits a request to <http://localhost:8081/order?color=red>?

- A. payload
- B. payload quantity var
- C. payload color query param

D. payload

quantity var color query param

Answer: D

Explanation:

Correct answer is

payload

quantity var

color query param

113. Refer to the exhibits.



The Mule application does NOT define any global error handlers.

The Validation component in the private flow throws an error

What response message is returned to a web client request to the main flow's HTTP Listener?

```

<http:listener-config name="HTTP_Listener_config" doc:name="HTTP Listener config" >
    <http:listener-connection host="0.0.0.0" port="8081" />
</http:listener-config>

<flow name="main" >
    <http:listener doc:name="HTTP: GET /" config-ref="HTTP_Listener_config" path="/" />
    <flow-ref doc:name="private" name="private"/>
    <set-payload value="Parent completed" doc:name='Parent completed' />
    <error-handler>
        <on-error-propagate enableNotifications="true" logException="true" doc:name="On Error Propagate" >
            <set-payload value="Parent error" doc:name='Parent error'" />
        </on-error-propagate>
    </error-handler>
</flow>

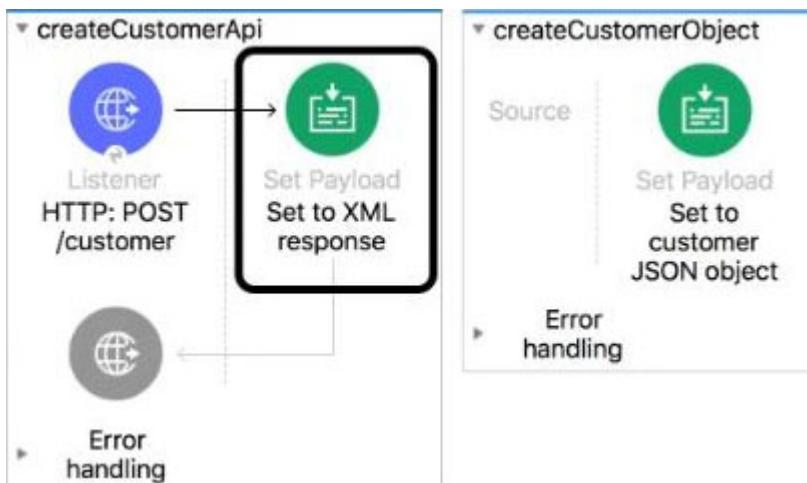
<flow name="private" >
    <validation:is-number numberType="INTEGER" doc:name="payload" value="#{payload}" message="Validation Error" />
    <error-handler >
        <on-error-propagate enableNotifications="true" logException="true" doc:name="On Error Propagate" >
            <set-payload value="Child error" doc:name='Child error'" />
        </on-error-propagate>
    </error-handler>
</flow>

```

- A. "Child error"
- B. "Parent error"
- C. "Validation Error"
- D. "Parent completed"

Answer: C

114. Refer to the exhibit.



What is the correct DataWeave expression for the Set Payload transformer to call the `createCustomerObject` flow with values for the first and last names of a new customer?

- A. `lookupC createCustomerObject("Alice", "Green-")`
- B. `createCustomerObject({ first: "Alice", last: "Green" })`
- C. `lookupf "createCustomerObject", { first: "Alice", last: "Green" })`
- D. `createCustomerObject("Alice", "Green")`

Answer: C

Explanation:

`lookup(String, Any, Number)`

This function enables you to execute a flow within a Mule app and retrieve the resulting payload.

It works in Mule apps that are running on Mule Runtime version 4.1.4 and later.

Similar to the Flow Reference component (recommended), the lookup function enables you to execute another flow within your app and to retrieve the resulting payload. It takes the flow's name and an input payload as parameters. For example, `lookup("anotherFlow", payload)` executes a flow named `anotherFlow`. Correct answer is

`lookup("createCustomerObject", {first: "Alice", last: "Green"})`

MuleSoft Documentation

Reference: <https://docs.mulesoft.com/mule-runtime/4.3/dw-mule-functions-lookup>

115.In an application network. If the implementation but not the interface of a product API changes, what needs to be done to the other APIs that consume the product API?

- A. The applications associated with the other APIs must be restarted
- B. The applications associated with the other APIs must be recoded
- C. The other APIs must be updated to consume the updated product API
- D. Nothing needs to be changed in the other APIs or their associated applications

Answer: D

Explanation:

Correct answer is Nothing needs to be changed in the other APIs or their associated applications

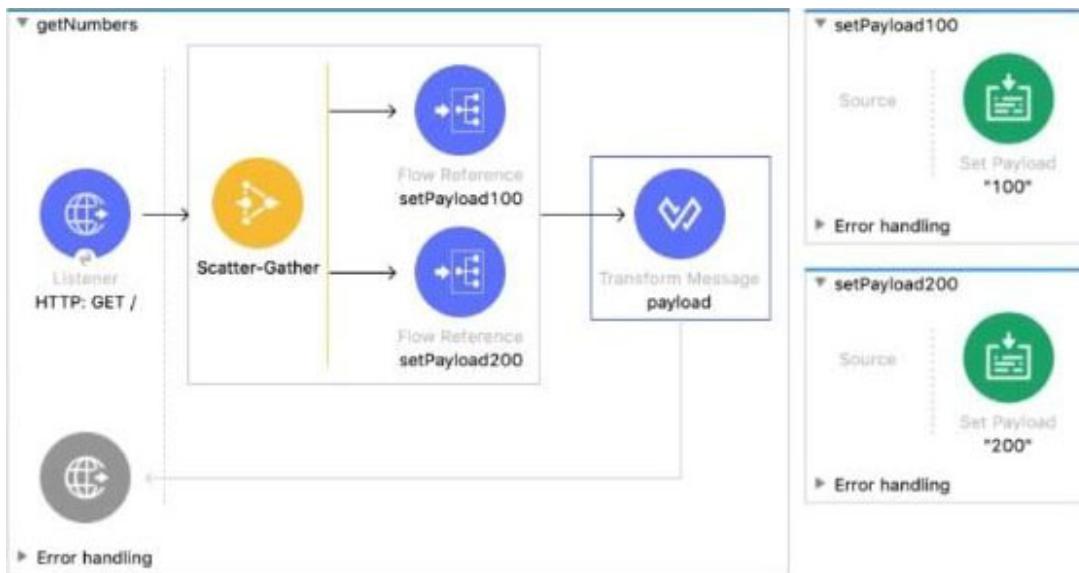
This is the benefit of having separate interface layer. As there are no changes to interface, no changes are required on the API's which consumes this API in context

116.How many Mule applications can run on a CloudHub worker?

- A. At most one
- B. At least one
- C. Depends
- D. None of these

Answer: A

117.Refer to the exhibits.



```

<flow name="getNumbers" >
    <http:listener doc:name="HTTP: GET /" config-ref="HTTP_Listener_config" path="/" />
    <scatter-gather doc:name="Scatter-Gather" >
        <route >
            <flow-ref doc:name='setPayload100' name='setPayload100' />
        </route>
        <route >
            <flow-ref doc:name="setPayload200" name="setPayload200" />
        </route>
    </scatter-gather>
    <ee:transform doc:name="payload">
        <ee:message >
            <ee:set-payload ><![CDATA[%dw 2.0
                output application/json
                ---
                payload]]></ee:set-payload>
        </ee:message>
    </ee:transform>
</flow>
<flow name="setPayload100" ><set-payload value="#["100"]" doc:name="100" /></flow>
<flow name="setPayload200" ><set-payload value="#["200"]" doc:name="200" /></flow>

```

Each route in the Scatter-Gather sets the payload to the number shown in the label.

What response is returned to a web client request to the HTTP Listener?

A)

```
[  
  {  
    "attributes": ....,  
    "payload": "100"  
  },  
  {  
    "attributes": ....,  
    "payload": "200"  
  }  
]  
B)  
{  
  "0": "100",  
  "1": "200"  
}  
C)  
["100", "200"]  
D)  
{  
  "0": {  
    "attributes": ....,  
    "payload": "100"  
  },  
  "1": {  
    "attributes": ....,  
    "payload": "200"  
  }  
}
```

- A. Option A
- B. Option B
- C. Option C
- D. Option D

Answer: D

Explanation:

Correct answer is as below. After all processing routes have finished execution, the Scatter-Gather

component creates a new Mule event that combines all resulting Mule events from each route, and then passes the new Mule event to the next component in the flow.

```
{  
"0": {  
"attributes": ...,  
"payload": "100"  
},  
"1": {  
"attributes": ...,  
"payload": "200"  
}  
}
```

Bottom of Form

118.A Database On Table Row listener retrieves data from a CUSTOMER table that contains a primary key userjd column and an increasing kxjin_date_time column. Neither column allows duplicate values. How should the listener be configured so it retrieves each row at most one time?

- A. Set the watermark column to the bgin_date_time column
- B. Set the target value to the last retrieved login_date_time value
- C. Set the target value to the last retrieved user_id value
- D. Set the watermark column to the user_Id column

Answer: A

Explanation:

- * Watermark allows the poll scope to poll for new resources instead of getting the same resource over and over again.
- * The database table must be ordered so that the “watermark functionality” can move effectively in the ordered list. Watermark stores the current/last picked up “record id.”
- * If the Mule application is shut down, it will store the last picked up “record id” in the Java Object Store and the data will continue to exist in the file. This watermark functionality is valuable and enables developers to have increased transparency.
- * Developers do not need to create code to handle caching; it is all configurable!
- * There are two columns and both are unique but user_id can't guaranty sequence whereas date_time will always be in increasing order and table content can easily be ordered on the basis of last processed date_time.

So correct answer is: Set the watermark column to the date_time column

119.A flow has a JMS Publish consume operation followed by a JMS Publish operation. Both of these operations have the default configurations.

Which operation is asynchronous and which one is synchronous?

- A. Publish consume: Synchronous. Publish: Asynchronous.
- B. Publish consume: Asynchronous. Publish: Synchronous
- C. Publish consume: Asynchronous. Publish: Asynchronous
- D. Publish consume: Synchronous. Publish: Synchronous

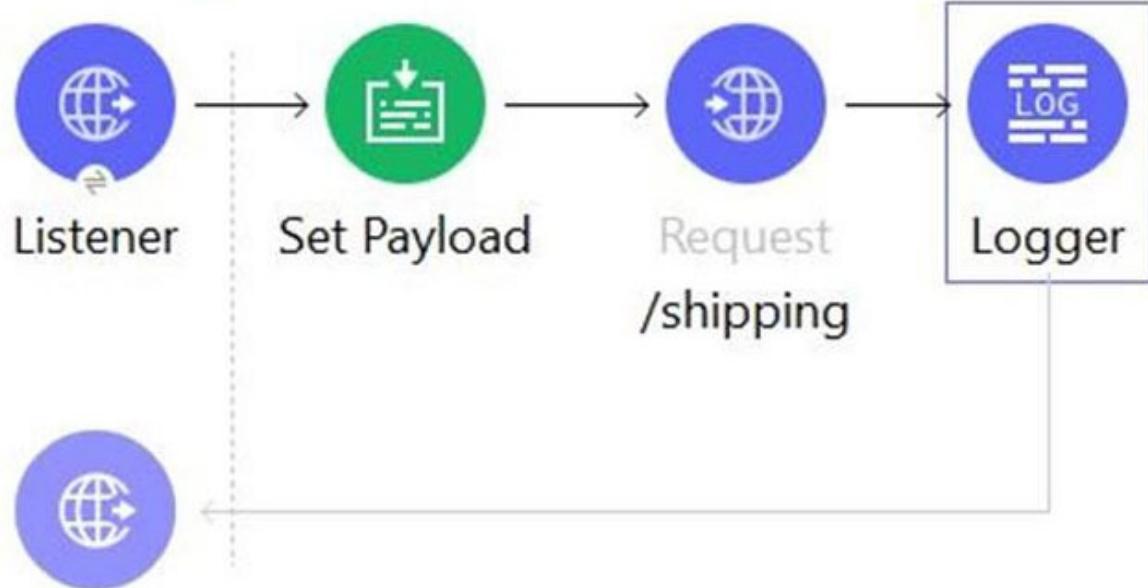
Answer: A

Explanation:

Publish consume: Synchronous. Publish: Asynchronous.

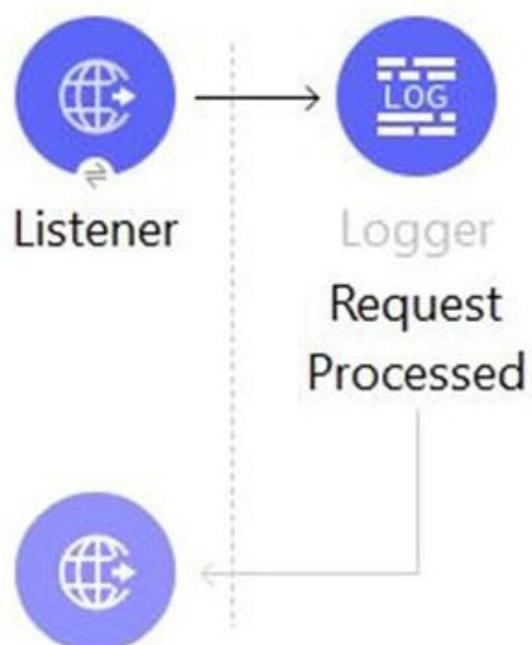
120. Refer to the exhibits.

▼ ClientRequestFlow



Error
handling

▼ ShippingFlow



Error
handling

```

<http:listener-config name="HTTP_Listener_config" doc:name="HTTP Listener config" doc:id="a146bd76-e3c2-4db0-95bf-c124e3ddd4d3" >
    <http:listener-connection host="0.0.0.0" port="8081" />
</http:listener-config>
<http:request-config name="HTTP_Request_configuration" doc:name="HTTP Request configuration" doc:id="953ca3a1-728e-4469-88ba-3a80e0d40a19" >
    <http:request-connection host="localhost" port="8081" />
</http:request-config>
<flow name="ClientRequestFlow" doc:id="2fde32c2-877b-4f70-b039-b6f111b3fb8f" >
    <http:listener doc:name="Client HTTP Listener" doc:id="8d3a6e62-4b26-4ec9-9f03-aa0e1d254633" config-ref="HTTP_Listener_config" path="/api/ship"/>
    <set-payload value="#{product:Chair, address:Mumbai}" doc:name="Set Payload" doc:id="03b6de3a-0a4b-4fdb-b770-f533f3ce63a0" />
    <http:request method="PUT" doc:name="shipping" doc:id="3a6171a9-2a76-4588-bcdc-4a31ba4881b2" config-ref="HTTP_Request_configuration" path="/shipping"/>
    <logger level="INFO" doc:name="Logger" doc:id="64da1a92-a2c2-45aa-adac-c8bb17eae93b" />
</flow>
<flow name="ShippingFlow" doc:id="904402e3-c1d3-49f0-a7ef-00aa0c4c4936" >
    <http:listener doc:name="Listener" doc:id="405a1626-11b1-4f2-828d-c4d3dbc64b5" config-ref="HTTP_Listener_config" path="/shipping" allowedMethods="POST"/>
    <logger level="INFO" doc:name="Request Processed" doc:id="b7acd0c2-1621-4853-aabe-558b96412650" message="Request Processed"/>
</flow>
*****
Message : HTTP PUT on resource 'http://localhost:8081/shipping' failed: method not allowed (405).
Element : ClientRequestFlow/processors/1 @ mule_app:flow1.xml:68 (/shipping)
Element DSL : <http:request method="PUT" doc:name="/shipping" doc:id="3a6171a9-2a76-4588-bcdc-4a31ba4881b2" config-ref="HTTP_Request_configuration" path="/shipping"></http:request>
Error type : HTTP:METHOD_NOT_ALLOWED
FlowStack : at ClientRequestFlow(ClientRequestFlow/processors/1 @ mule_app:flow1.xml:68 (/shipping))

(set debug level logging or '-Dmule.verbose.exceptions=true' for everything)
*****

```

Client sends the request to ClientRequestFlow which calls ShippingFlow using HTTP Request activity.

During E2E testing it is found that that HTTP:METHOD_NOT_ALLOWED error is thrown whenever client sends request to this flow.

What attribute you would change in ClientRequestFlow to make this implementation work successfully?

- A. Change the method attribute value to ""
- B. Change the path attribute value to "/api/ship"
- C. Change the allowed method attributes value to "POST"
- D. Change the protocol attribute value to "HTTPS"

Answer: C

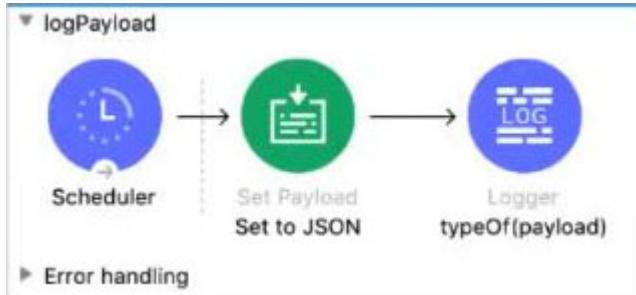
Explanation:

Correct answer is Change the method attributes value to "POST".

It can be fixed in either of the two ways as below.

- 1) Changing method attribute to POST in ClientRequestFlow
- 2) Setting allowedMethods as PUT in ShippingFlow (but doesn't fit as question mentions about changing ClientRequestFlow)

121. Refer to the exhibits.



```

<flow name="logPayload" >
    <scheduler doc:name="Scheduler" >
        <scheduling-strategy >
            <fixed-frequency />
        </scheduling-strategy>
    </scheduler>
    <set-payload doc:name="Set to JSON" value="#[{
        "accounts": {
            "account": {
                "accountName": "ABC Widgets",
                "type": "New Customer",
                "stage": "Qualification"
            }
        }
    }]" />
    <logger level="INFO" doc:name="typeOf(payload)" message="#[typeOf(payload)]"/>
</flow>

```

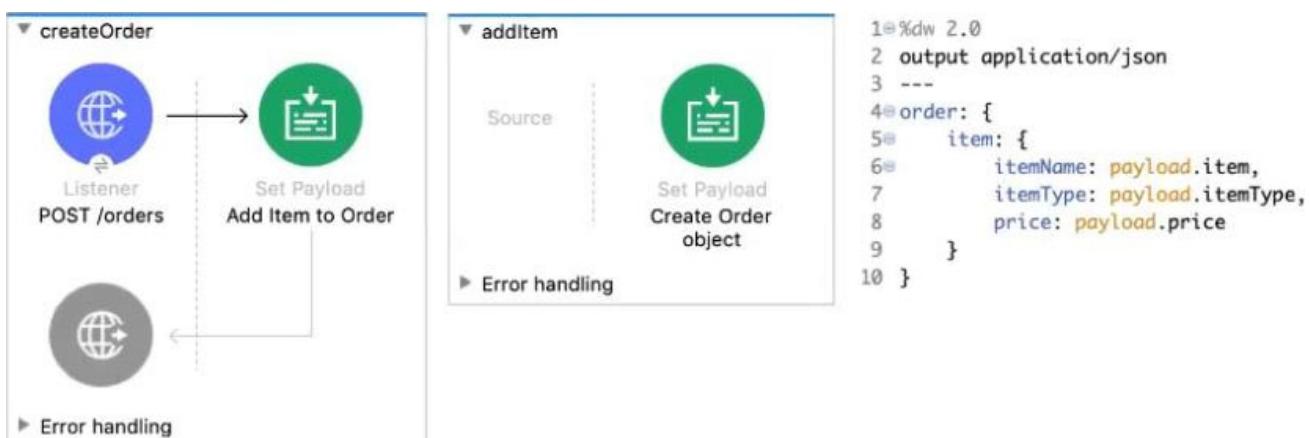
A JSON payload is set in the Set Payload transformer.

What is logged by the Logger?

- A. "String"
- B. "Object"
- C. "Array"
- D. "JSON"

Answer: B

122. Refer to the exhibits.



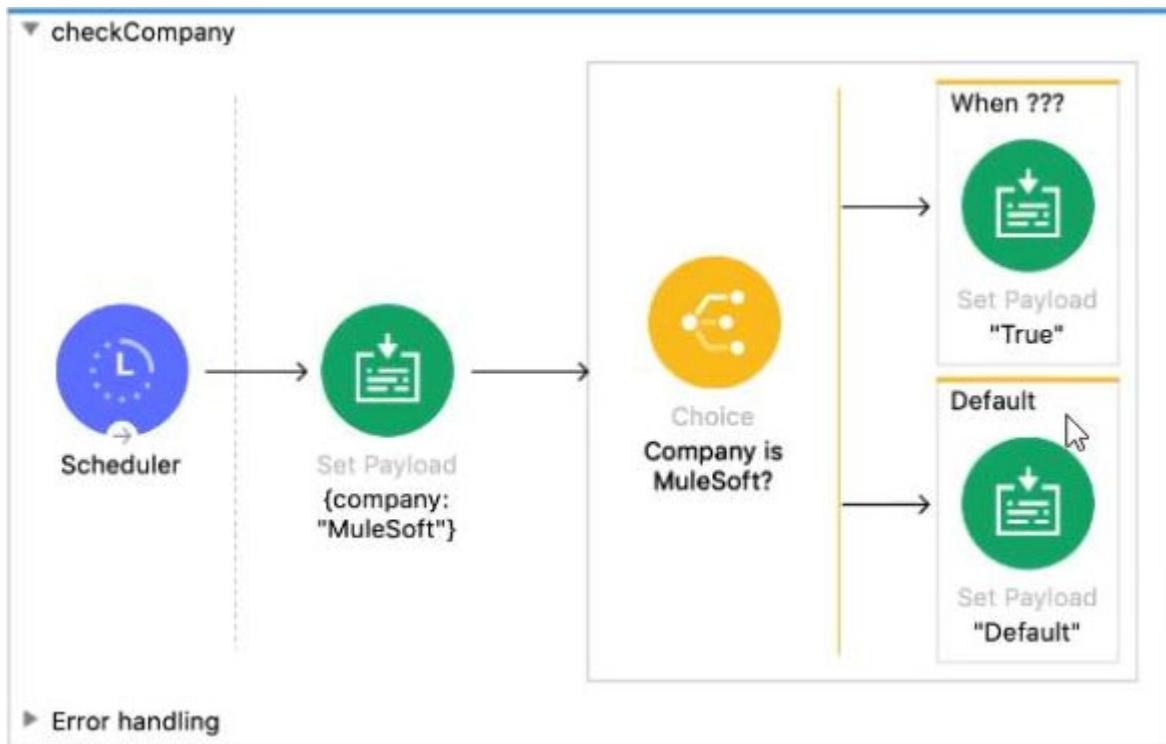
The Set Payload transformer In the addItem subflow uses DataWeave to create an order object.

What is the correct DataWeave code for the Set Payload transformer in the createOrder flow to use the addItem subflow to add a router cable with the price of 100 to the order?

- A. addItemf { payload: { price: "100", item: "router", itemType: "cable" } > }
- B. lookupf "addItem", { payload: { price: "100", item: "router", itemType: "cable" } })
- C. addItemf { price: "100", item: "router", itemType: "cable" })
- D. lookupf "addItem", { price: "100", item: "router", itemType: "cable" })

Answer: B

123. Refer to the exhibits.



```

<flow name="checkCompany">
    <scheduler doc:name="Scheduler">
        <scheduling-strategy>
            <fixed-frequency frequency="5000" />
        </scheduling-strategy>
    </scheduler>
    <set-payload value="#[{company: "MuleSoft"}] doc:name='{company: "MuleSoft"}'" />
    <choice doc:name="Company is MuleSoft?">
        <when expression="When ???">
            <set-payload value="#["True"]" doc:name='"True"' />
        </when>
        <otherwise>
            <set-payload value="#["Default"]" doc:name='"Default"' />
        </otherwise>
    </choice>
</flow>
  
```

The <when> expression for the Choice router needs to be written.

What is a valid <when> expression to route Mule events to the non-default flow?

- A. #'['MuleSoft' == payload.company]
- B. #[company = "MuleSoft"]
- C. #[if(company = "MuleSoft")]
- D. #[if('MuleSoft' == payload.company)]

Answer: A

124. According to Semantic Versioning, which version would you change for incompatible API changes?

- A. No change
- B. MINOR
- C. MAJOR
- D. PATCH

Answer: C

Explanation:

Correct answer is MAJOR

MAJOR version when you make incompatible API changes, MINOR version when you add functionality in a backwards compatible manner, and PATCH version when you make backwards compatible bug fixes.

For details refer to this documentation: <https://semver.org/>

125.What is not true about application properties?

- A. Application properties can be encrypted
- B. Application properties can be overridden with system properties
- C. Application properties can be defined in .yaml file only
- D. Application properties provide easier way to manage configurable values

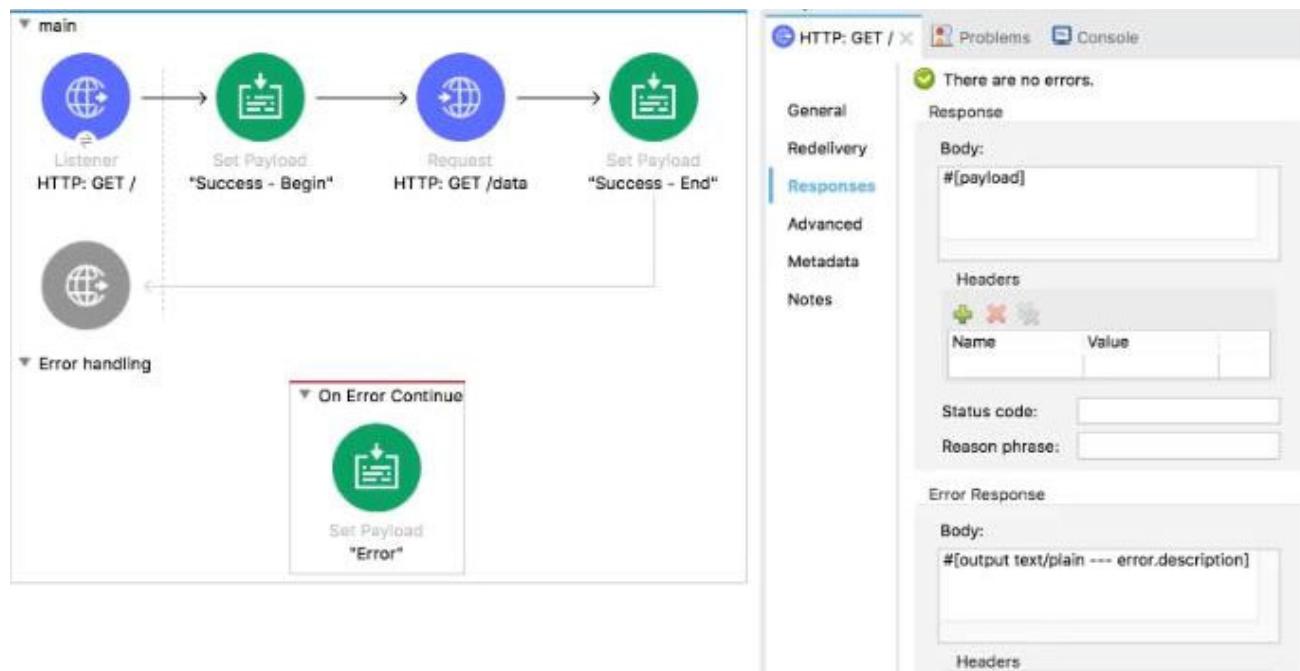
Answer: C

Explanation:

Application properties can be defined in .yaml or in .properties file. MuleSoft Doc

Ref: https://docs.mulesoft.com/mule-runtime/4.3/configuring-properties#supported_files

126.Refer to the exhibits.



```
<flow name="main">
    <http:listener doc:name="HTTP: GET /" config-ref="HTTP_Listener_config" path="/" />
    <set-payload value="Success - Begin" doc:name="Success - Begin" />
    <http:request method="GET" doc:name="HTTP: GET /data" url="http://mu.learn.mulesoft.com/data"/>
    <set-payload value="Success - End mainFlow" doc:name="Success - End" />
    <error-handler>
        <on-error-continue enableNotifications="true" logException="true" doc:name="On Error Continue">
            <set-payload value="Error" doc:name="Error" />
        </on-error-continue>
    </error-handler>
</Flow>
```

A web client submits a request to the HTTP Listener and the HTTP Request throws an error.

What payload and status code are returned to the web client?

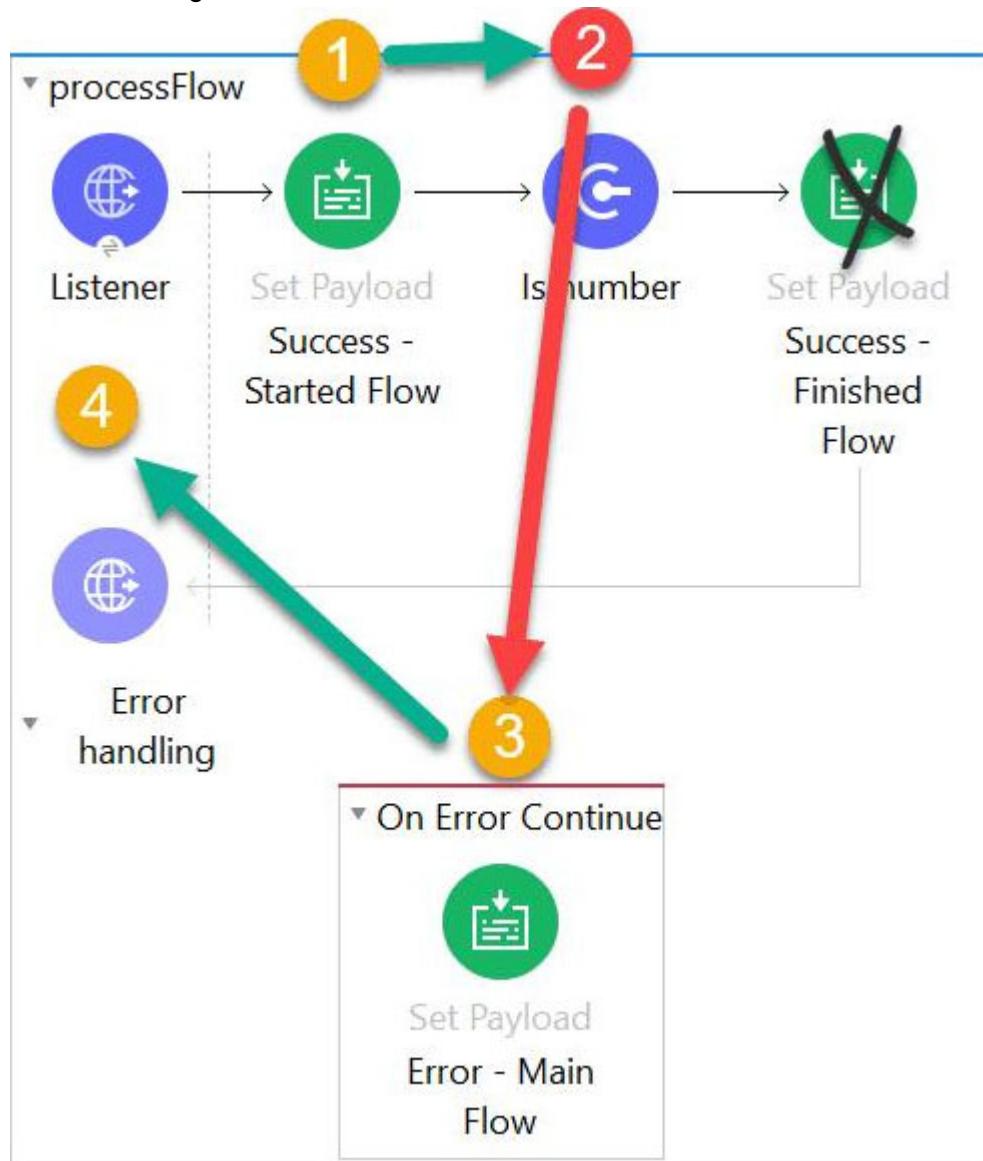
- A. Response body: "Error" Default response status code: 200
- B. Response body: "Success - Begin" Default response status code: 200
- C. Error response body: error, description Default error response status code: 500
- D. Response body: "Success - End" Default response status code: 200

Answer: A

Explanation:

- 1) Payload is successfully set to "Success – Started Flow"
- 2) When HTTP Request throws an error, execution halts #[error.description] = "ABC"
#[error.errorType] = "XYZ"
- 3) The On Error Continue scope handles the error. When On Error Continue scope is invoked, all the processors in error block are executed and success response is sent back to the client with payload which is set in error flow. In this case payload is set to "Error" value in error block.
- 4) "Error" is returned to the requestor in the body of the HTTP request with HTTP Status Code: 200 as On error continue always sends success error code.

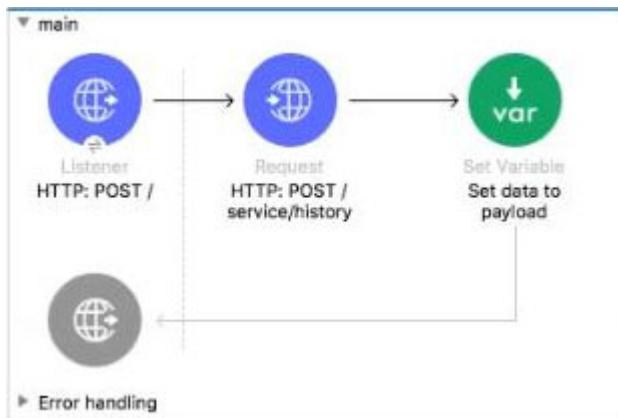
Reference Diagram:



Timeline

Description automatically generated with medium confidence

127. Refer to the exhibit.



What can be added to the flow to persist data across different flow executions?

- A. Key/value pairs in the ObjectStore
- B. Properties of the Mule runtime flow object
- C. properties of the Mule runtime app object
- D. session variables

Answer: A

Explanation:

An object store is a facility for storing objects in or across Mule applications. Mule runtime engine (Mule) uses object stores to persist data for eventual retrieval. Internally, Mule uses object stores in various filters, routers, and other message processors that need to store states between messages.

Object stores are available in all deployment targets. If you deploy your application to CloudHub, you can also use Object Store V2. Correct answer is Key/value pair in Object store

MuleSoft Documentation reference: <https://docs.mulesoft.com/mule-runtime/4.3/mule-object-stores#use-cases>

128. Which of the below is used by Mule application to manage dependencies which make sharing the projects lightweight and easier?

- A. Configuration file
- B. Global element
- C. POM.xml
- D. Cloudbuild

Answer: C

Explanation:

POM.xml contains info about the project and configuration details used by Maven to build the project

129. How are query parameters dynamically passed to an outbound REST request using an HTTP Request operation?

- A. As query parameters in the HTTP Request operation
- B. As URI parameters in the HTTP Request operation
- C. In the Mule event's payload

D. As flow variables

Answer: A

Explanation:

In General > Request > Query Parameters, click the plus icon (+) to add a parameter to a request. Type a name and value for the parameter or use a DataWeave expression to define the name and value.

```
http://${training.host}:${training.port}${training.basepath}/united/flights/{dest}
```

The screenshot shows a configuration interface for a request. At the top, there are fields for Method (GET (Default)), Path (/united/flights/{dest}), and URL. Below these are tabs for Body, Headers, Query Parameters, and URI Parameters. The URI Parameters tab is active, showing a table with one row: Name "Key" and Value "request_key". There is also a field for Send correlation id with the value "-- Empty --".

Graphical user interface, text, application, email

Description automatically generated

130. Refer to the exhibit.

The screenshot shows a DataWeave transformation interface. On the left, there is an XML editor with the file name "order.xml" containing the following XML code:

```
<?xml version="1.0" encoding="UTF-8"?>
<order>
  <item orderId="592">
    <shipping>international</shipping>
    <item>T-shirt Navy</item>
    <size>L</size>
    <quantity>1</quantity>
    <price>20</price>
  </item>
  <item orderId="972">
    <shipping>domestic</shipping>
    <item>Cargo Shorts</item>
    <size>XL</size>
    <quantity>2</quantity>
    <price>30</price>
  </item>
</order>
```

On the right, there is an Output Payload editor showing the resulting JSON output:

```
[{"index": 0, "orderId": "592", "itemName": "T-shirt Navy", "lineItemPrice": 20}, {"index": 1, "orderId": "972", "itemName": "Cargo Shorts", "lineItemPrice": 60}]
```

What Database expression transforms the input to the output?

A)

```
payload.order.*item map ( (value,index) -> {
  index: index,
  orderId: value.orderId,
  itemName: value.item,
  lineItemPrice: (value.price as :number) * (value.quantity as :number)
})
```

B)

```
payload.order.*item map ( (value,index) -> {
    index: index,
    orderId: value.@orderId,
    itemName: value.item,
    lineItemPrice: (value.price as Number) * (value.quantity as Number)
})
```

C)

```
payload.order.*item map ( (value,index) -> {
    index: index,
    orderId: value.@orderId,
    itemName: value.item,
    lineItemPrice: (value.price as :number) * (value.quantity as :number)
})
```

D)

```
payload.order.*item map( (value,index) -> {
    index: index,
    orderId: value.orderId,
    itemName: value.item,
    lineItemPrice: (value.price as Number) * (value.quantity as Number)
})
```

- A. Option A
- B. Option B
- C. Option C
- D. Option D

Answer: B

131.A RAML specification is defined to manage customers with a unique identifier for each customer record.

What URI does MuleSoft recommend to uniquely access the customer identified with the unique ID 1234?

- A. /customers?custid=true&custid=1234
- B. /customers/1234
- C. /customers/custid=1234
- D. /customers?operation=get&custid=1234

Answer: B

Explanation:

URI parameter (Path Param) is basically used to identify a specific resource or resources . For eg : the URL to get employee details on the basis of employeeID will be GET /employees/{employeeID} where employees is resource and {employeeID} is URI parameter. Hence option 1is the correct answer

132.What is the default port used by Mule application debugger configuration in Anypoint Studio?

- A. 8082
- B. 8080
- C. 7777
- D. 6666

Answer: D

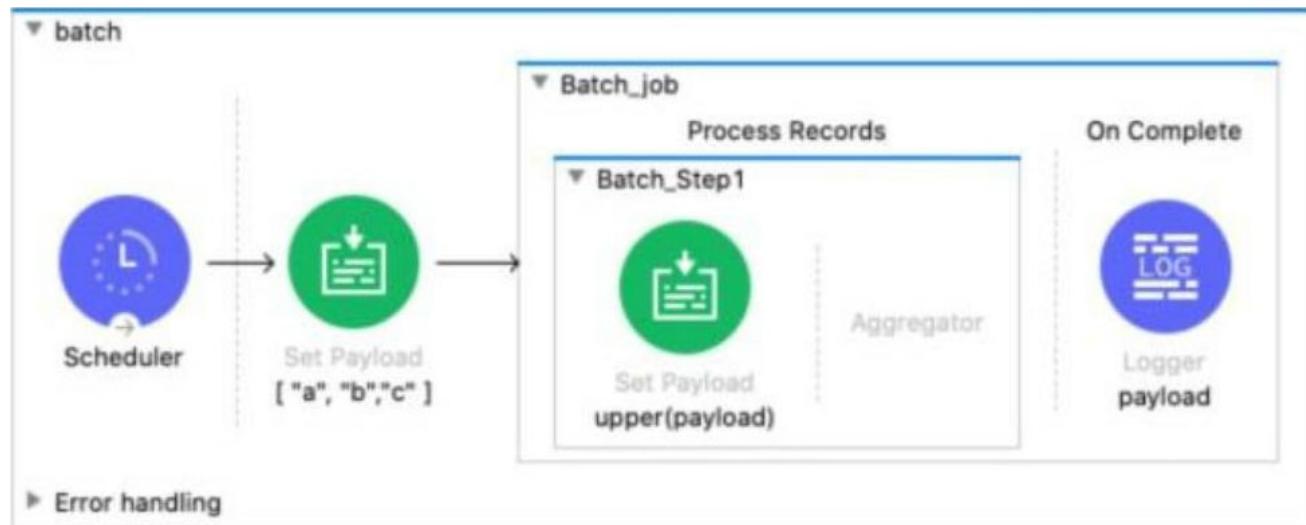
Explanation:

By default, Debugger listens for incoming TCP connections on localhost port 6666 You can change this in a project's run configuration.

MuleSoft Doc

Ref: <https://docs.mulesoft.com/studio/7.5/visual-debugger-concept>

133.Refer to the exhibits.



```
<flow name="batch" >
    <scheduler doc:name="Scheduler" >
        <scheduling-strategy>
            <fixed-frequency frequency="10000" />
        </scheduling-strategy>
    </scheduler>
    <set-payload value="#{{ "a", "b", "c" }}' doc:name='[ "a", "b", "c" ]' />
    <batch:job jobName="Batch_job" >
        <batch:process-records >
            <batch:step name="Batch_Step1" >
                <set-payload value="#[upper(payload)]' doc:name='upper(payload)' />
            </batch:step>
        </batch:process-records>
        <batch:on-complete >
            <logger level="INFO" doc:name="payload" message="#[payload]" />
        </batch:on-complete>
    </batch:job>
</flow>
```

The Batch Job scope processes the array of strings

After the Batch Job scope completes processing the input payload what information is logged by the Logger component?

A)

Total Records processed: 1

Successful records: 1

Failed Records: 0

payload: ["A", "B", "C"]

B)

Total Records processed: 3

Successful records: 3

Failed Records: 0

payload: ["A", "B", "C"]

C)

Total Records processed: 3

Successful records: 3

Failed Records: 0

D)

["A", "B", "C"]

- A. Option A
- B. Option B
- C. Option C
- D. Option D

Answer: C

134. Refer to the exhibits.

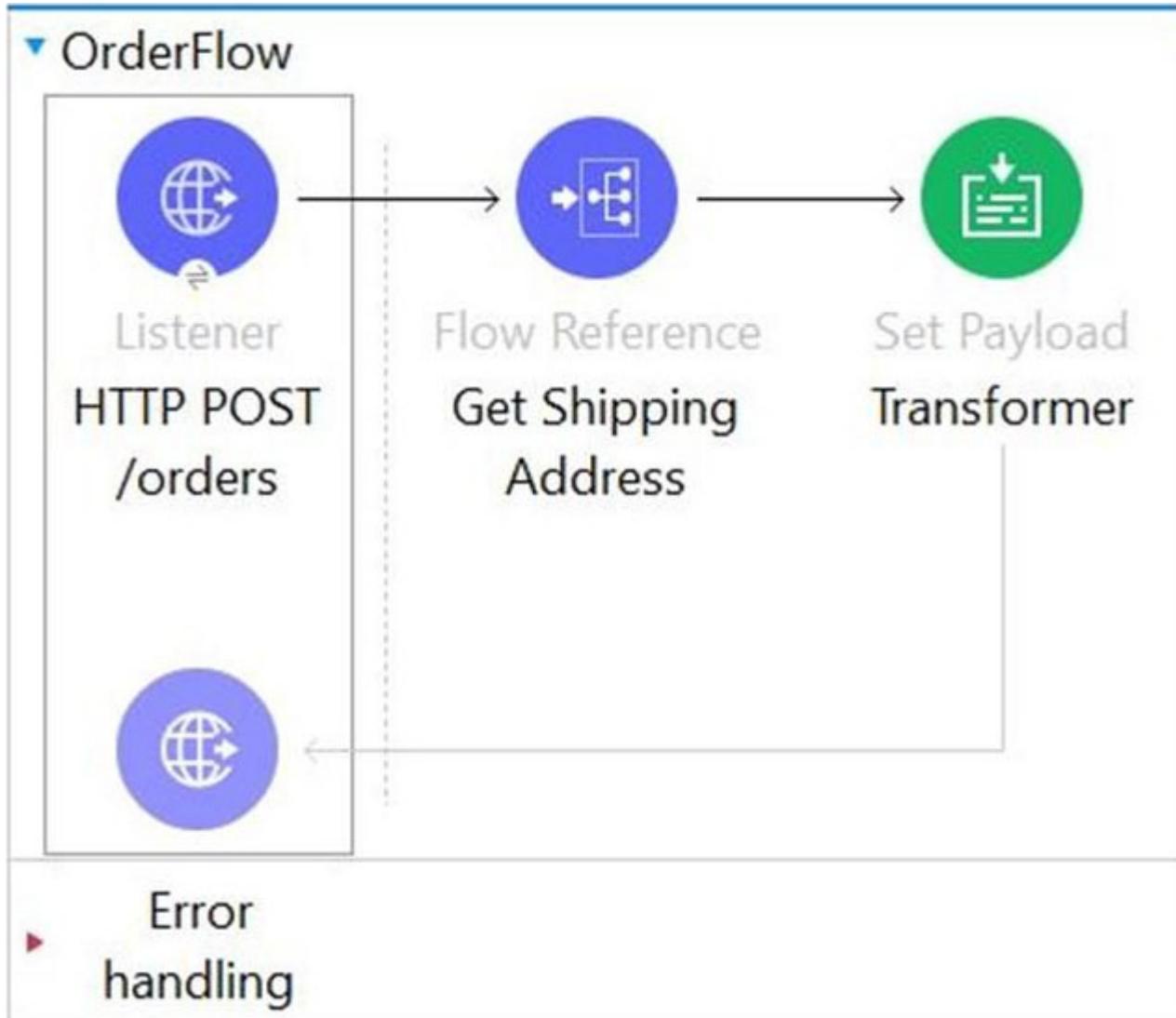
```
{  
    "name": "Rohan Kulkarni"  
    "order": [  
        {"product": "laptop", "amount": "25000", "currency": "INR"}  
    ]  
}
```

This main mule application calls a separate flow called as ShippingAddress which returns the address corresponding to the name of the user sent to it as input. Output of this ShippingAddress is stored in a target variable named address.

Next set of requirement is to have a setPayload transformer which will set below two values

- 1) orderkey which needs to set to be equal to the order element received in the original request payload.
- 2) addressKey which needs to be set to be equal to the address received in response of ShippingAddress flow

What is the straightforward way to properly configure the Set Payload transformer with the required data?



```

<flow name="OrderFlow" doc:id="db8246ce-55ce-4e71-83c7-55c2a256aaba" >
  <http:listener doc:name="HTTP POST /orders" doc:id="4abfbf51-a921-45af-b162-f97508def591" config-ref="HTTP_Listener_config"
    path="/orders" allowedMethods="POST"/>
  <flow-ref doc:name="Get Shipping Address" doc:id="efb25eeef-1ba1-4318-b550-71e5e27698ad" name="ShippingAddress" target="address"/>
  <set-payload value="#{output application/json
    --->
    {
      orderkey: "?????",
      addresskey: "?????"
    }]" doc:name="Transformer" doc:id="3ce06091-db7d-4462-9a6f-1713c4969445" />
</flow>
  
```

A mule application is being developed which will process POST requests coming from clients containing the name and order information. Sample request is as below

- A. 1. 1. {
- 2. 2. orderkey: "payload.order",
- 3. 3. addresskey: "vars.address"
- 4. 4. }
- B. 1. 1. {
- 2. 2. orderkey: "attributes.shippingaddress.order",
- 3. 3. addresskey: "payload"
- 4. 4. }
- C. 1. 1. {

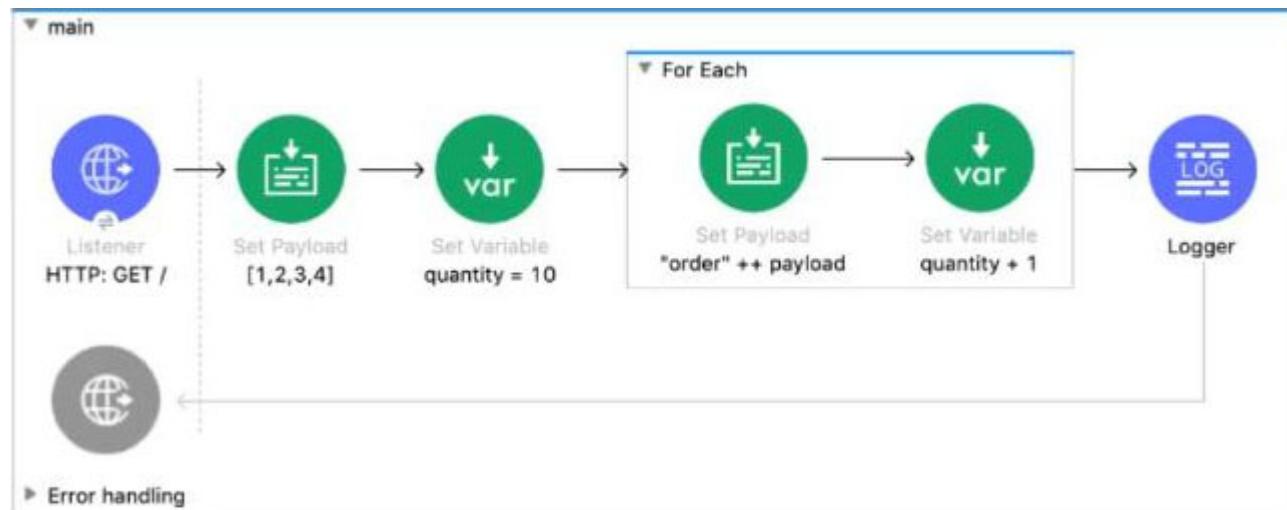
2. 2. orderkey: "payload.order",
 3. 3. addresskey: "address"
 4. }
 D. 1. 1. {
 2. 2. orderkey: "attributes.order",
 3. 3. addresskey: "vars.address"
 4. }

Answer: A

Explanation:

Correct answer is as below. In this case address will be stored in a variable. Hence payload will not be overwritten and will contain order details {
 orderkey: "payload.order",
 addresskey: "vars.address"
 }

135. Refer to the exhibits.



```
<flow name="main" >
  <http:listener doc:name="HTTP: GET /" config-ref="HTTP_Listener_config" path="/" allowedMethods="GET"/>
  <set-payload value="#[[1,2,3,4]]" doc:name="1,2,3,4" />
  <set-variable value="10" doc:name="quantity = 10" variableName="quantity" />
  <foreach doc:name="For Each" >
    <set-payload value="#["order" ++ payload]" doc:name="order" ++ payload' />
    <set-variable value="#[vars.quantity + 1]" doc:name="quantity + 1" variableName="quantity" />
  </foreach>
  <logger level="INFO" doc:name="Logger" message='#[[ payload, vars.quantity ]]'/>
</flow>
```

What payload and quantity are logged at the end of the main flow?

- A. [[order1, order2, order3, order4], 14]
- B. [[1,2,3,4], 10]
- C. [[1,2,3,4], 14]
- D. [order1order2order3order4, 14]

Answer: C

136. How to import Core (dw::Core) module into your DataWeave scripts?

- A. #include dw::core
- B. Not needed
- C. import core
- D. import dw::core

Answer: B

Explanation:

Correct answer is Not needed as dw::core module is included by default. We don't need to include it explicitly

137.An app team is developing a mobile banking app. It took them two months to create their own APIs to access transaction information from a central database. The app team later found out that another team had already built an API that accesses the transaction information they need.

According to MuleSoft, what organization structure could have saved the app team two months of development time?

- A. Center of Excellence
- B. Center for Enablement
- C. MuleSoft Support Center
- D. Central API Review Board

Answer: B

Explanation:

Reference: <https://blogs.mulesoft.com/biz/connectivity/what-is-a-center-for-enablement-c4e/>

Center for Enablement is correct answer. It is a cross-functional team typically staffed with members from central IT, line-of-business departments, and digital innovation teams charged with productizing, publishing, and harvesting reusable assets and best practices. In this case, app team would have checked first with Center for Enablement before developing their own API's. Hence could have avoided re-work

138.Which of the module is imported automatically in Dataweave scripts?

- A. dw::core
- B. dw::System
- C. dw::Runtime
- D. dw::Crypto

Answer: A

Explanation:

Core (dw::Core) This module contains core DataWeave functions for data transformations.
It is automatically imported into any DataWeave script.

139.Correct answer is {customerID}.

- A. var toUpper(userName) -> upper(userName)
- B. fun toUpper(userName) = upper(userName)
- C. fun toUpper(userName) -> upper(userName)
- D. var toUpper(userName) = upper(userName)

Answer: B

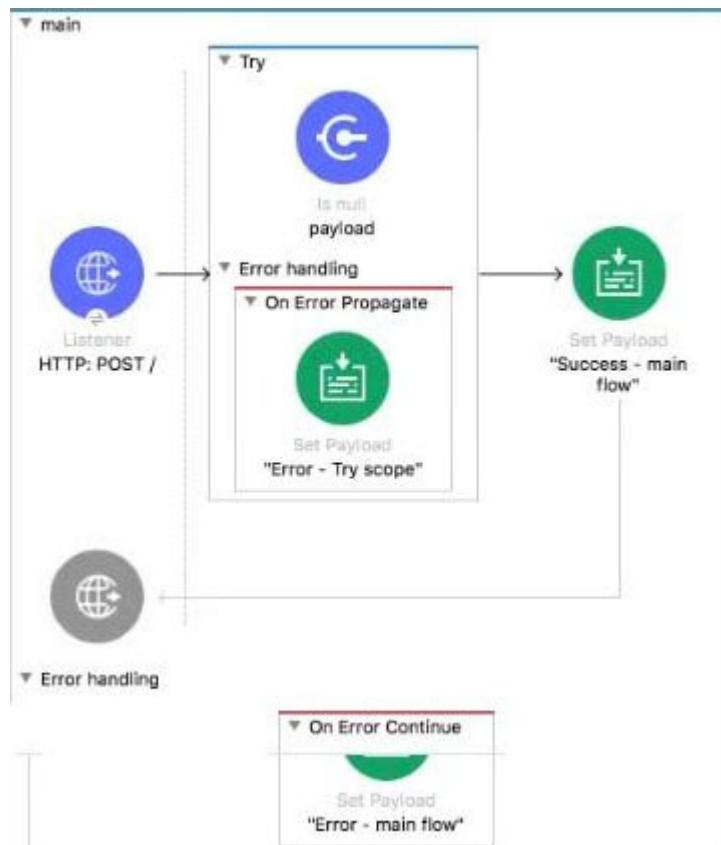
Explanation:

Reference: <https://docs.mulesoft.com/http-connector/1.5/http-listener-ref>

A function named toUpper needs to be defined that accepts a string named `userName` and returns the string in uppercase.

What is the correct DW code to define the `toUpper` function?

140. Refer to the exhibits.



```
<flow name="main">
  <http:listener doc:name="HTTP: POST /" config-ref="HTTP_Listener_config" path="/" />
  <try doc:name="Try" >
    <validation:is-null doc:name="payload" value="#{payload}" message="Validation Error"/>
    <error-handler >
      <on-error-propagate enableNotifications="true" logException="true" doc:name="On Error Propagate">
        <set-payload value="Error - Try scope" doc:name='Error - Try scope' />
      </on-error-propagate>
    </error-handler>
  </try>
  <set-payload value="Success - main flow" doc:name="Success - main flow" />
  <error-handler >
    <on-error-continue enableNotifications="true" logException="true" doc:name="On Error Continue" >
      <set-payload value="Error - main flow" doc:name='Error - main flow' />
    </on-error-continue>
  </error-handler>
</flow>
```

The Validation component in the Try scope throws an error.

What response message is returned to a client request to the main flow's HTTP Listener?

- A. Success - main flow
- B. Error - main flow
- C. Error - Try scope
- D. Validation Error

Answer: A

Explanation:

Note that private flow has error scope defined as On Error Continue. So when error occurs in private flow, it is handled by this On Error Continue scope which sends success response back to main flow and does not throw back an error.

So main continues normally and payload is set to Success - main flow.

Hence correct answer is Success - main flow

1) HTTP listener received request

2) The Flow Reference calls the child flow

3) The Is Number validator creates an Error Object because the payload isn't an integer. Child Flow execution stops

#`[error.description]` = "payload is not a valid INTEGER value" #`[error.errorType]` =

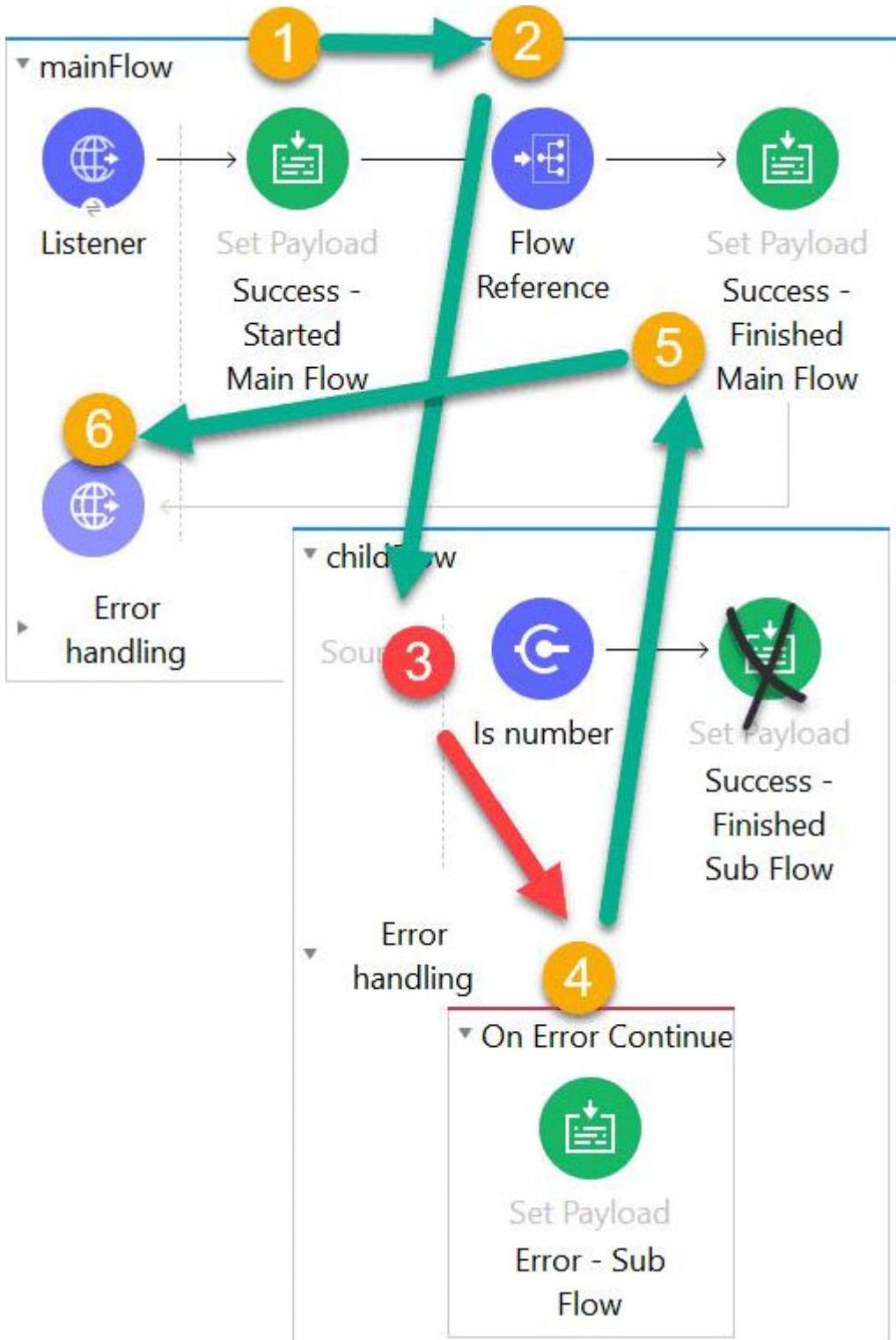
VALIDATION:INVALID_NUMBER

4) The On Error Continue handles the errorThe payload is set to "Error – Sub Flow"

5) "Error – Sub Flow" is returned to the main flow as if the child flow was a success. The Set Payload is executed. The payload is reset to "Success – Finished Main Flow"

6) "Success – Main Flow" is returned to the requestor in the body of the HTTP request. HTTP Status Code: 200

As you can see, in the above example, because the error was caught by an On Error Continue scope in the child flow (RED in, GREEN out) when the Mule Message returns to the parent flow, the parent flow knows none-the-different that there was a failure because the on error continue returns a 200 success message. Note that because, to the mainFlow, the childFlow appeared to succeed, the processing of mainFlow resumed after the flow reference.



A picture containing timeline

Description automatically generated

141. As a part of project requirement, you want to build an API for a legacy client. Legacy client can only consume SOAP webservices.

Which type the interface documentation can be prepared to meet the requirement?

- A. RAML file to define SOAP services

- B. WSDL file
- C. JSON file
- D. plain text file documenting API's

Answer: B

Explanation:

Web Services Description Language. WSDL is used to describe SOAP based web services

142.What valid RAML retrieves details on a specific by its orderId as a URL parameter?

A)

```
/orders:  
  /{orderId}:  
    get:
```

B)

```
/orders:  
  /orderId:  
    get:
```

C)

```
/orders:  
  get:  
    /{orderId}:  
      
```

D)

```
/orders:  
  get:  
    /orderId:  
      
```

A. Option A

B. Option B

C. Option C

D. Option D

Answer: A

143.Does a root element required when creating a XML response using Dataweave?

A. Depends on requirement

B. Not required

C. Always required

D. None of these

Answer: C

Explanation:

Root element is always required while creating XML response in DataWeave transformation

144.Refer to the exhibits.

A Mule application has an HTTP Request that is configured with hardcoded values. To change this, the Mule application is configured to use a properties file named config.yaml.

what valid expression can the HTTP Request host value be set to so that it is no longer hardcoded?

- A. \${training.host}
- B. \${training:host}
- C. #[training:host]
- D. #[training.host]

Answer: A

Explanation:

Correct answer is \${training.host}

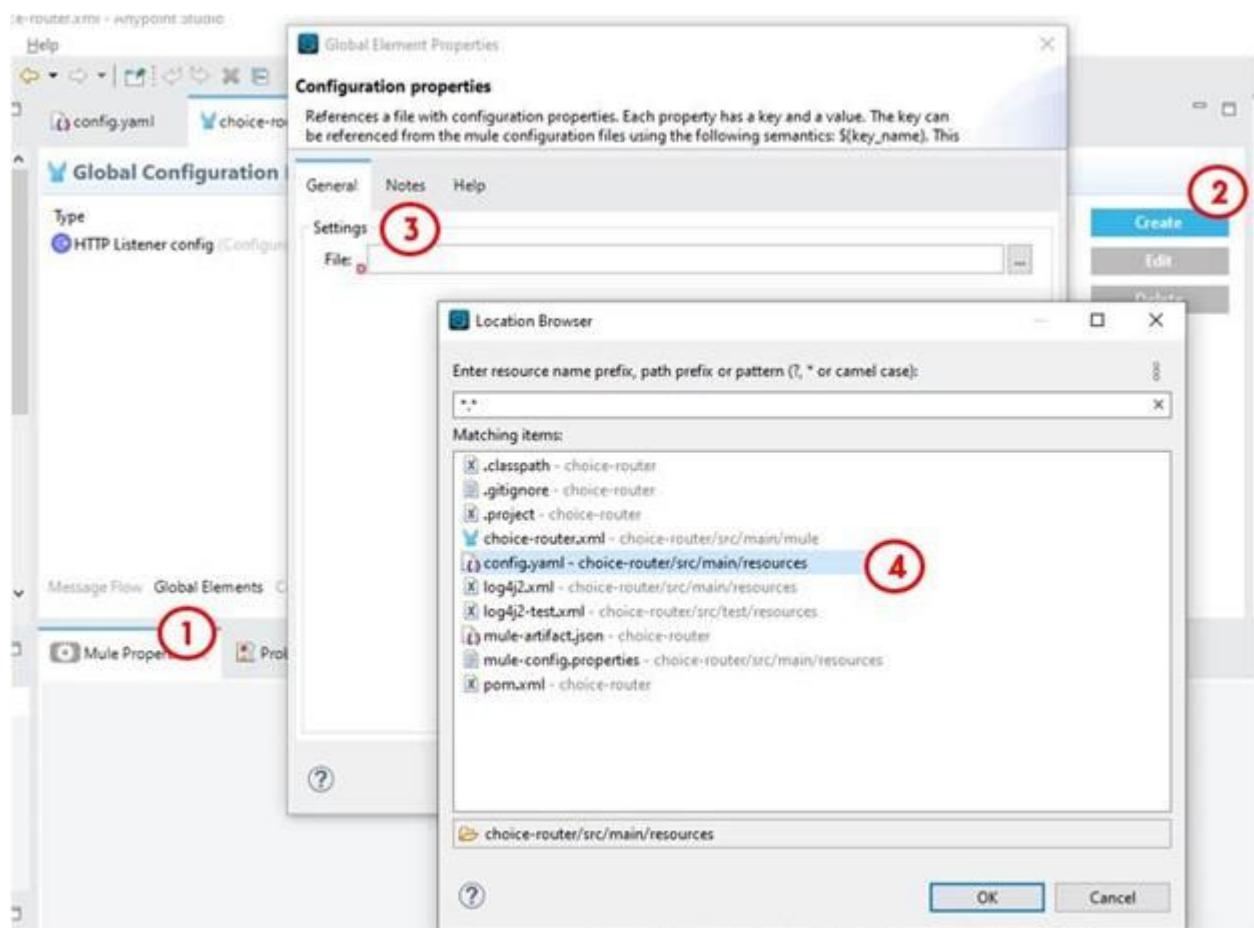
How to Configure Properties to Mule 4.X Platform?

- 1) Go to /src/main/resources project directory.
- 2) Create a configuration file with the name configuration.yaml inside the newly created config folder.

Graphical user interface, application, Word

Description automatically generated

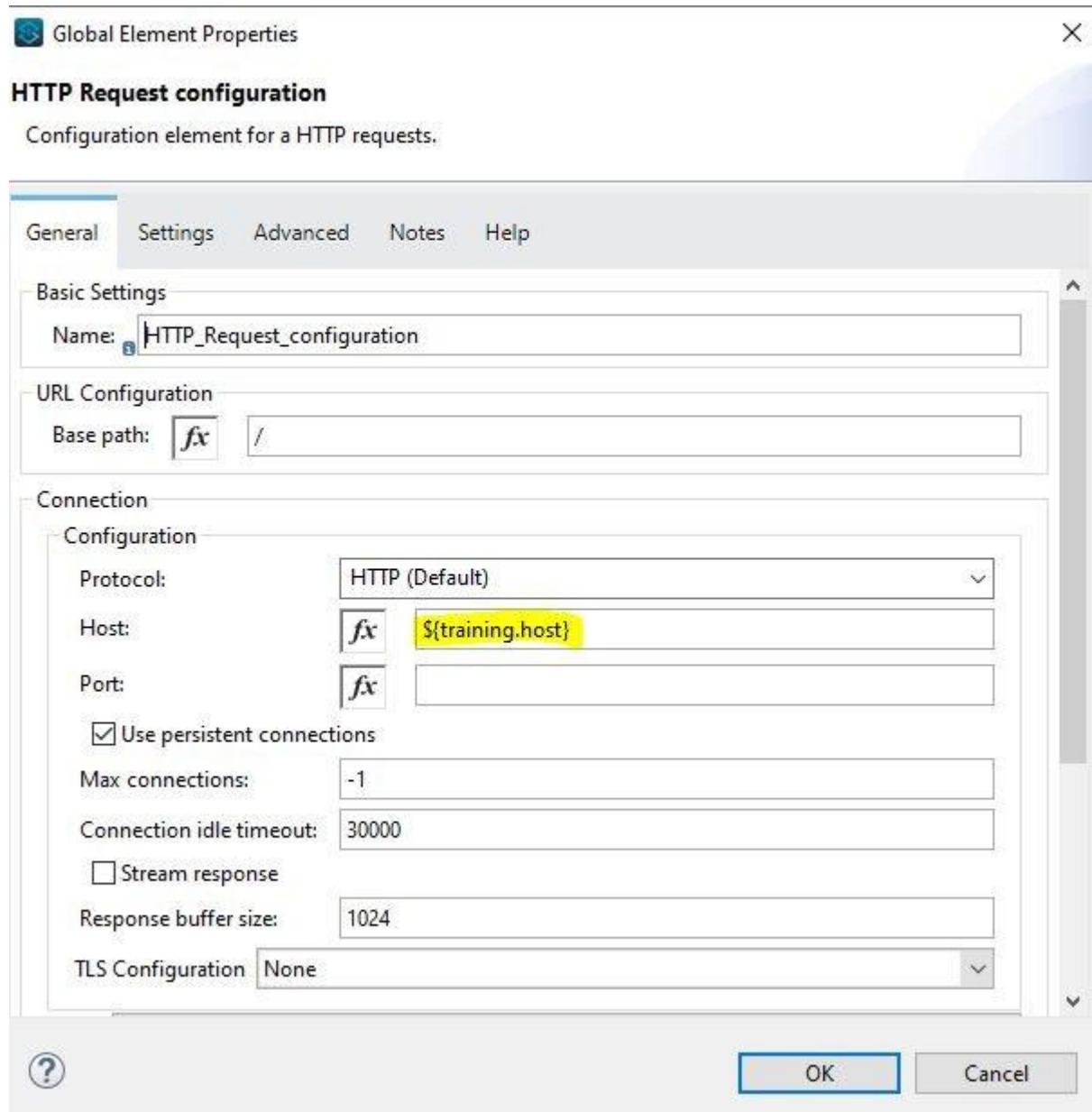
- 3) Go To Project > Global Element > Create > General >select the configuration.yaml file create in step-2)



Graphical user interface, application

Description automatically generated

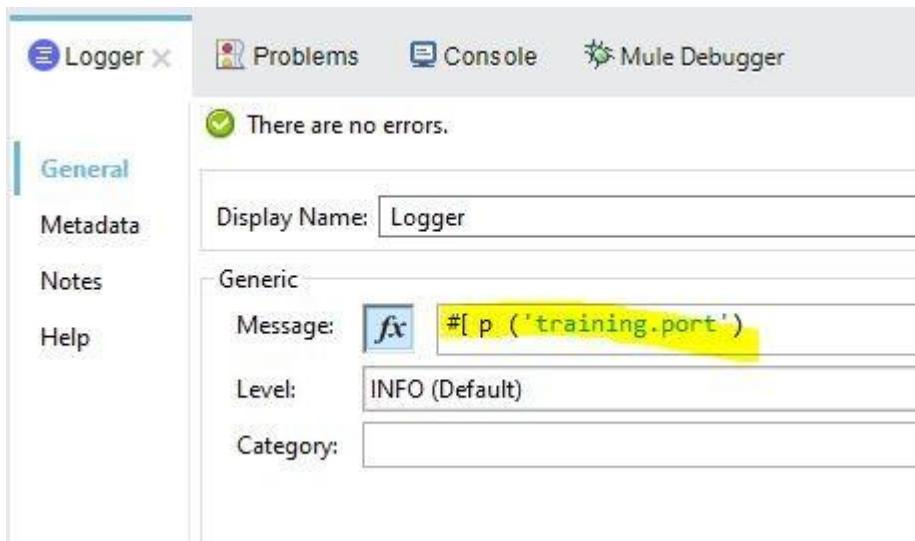
- 4) To verify develop a simple flow with HTTP listener which has above entries. Put the logger that prints the values on console.



Graphical user interface, application

Description automatically generated

5) Additional info: Similarly, when you want to access this port in DataWeave you need to use p function



Graphical user interface, text, application, email

Description automatically generated

145. A Utility.dwl file is located in a Mule project at src/main/resources/modules. The Utility.dwl file defines a function named `pascalize` that reforms strings to pascal case.

What is the correct DataWeave to call the `pascalize` function in a Transform Message component?

A)

```
%dw 2.0
output application/json
import modules.Utility
-----
pascalize( "max mule" )
```

B)

```
%dw 2.0
output application/json
import modules::Utility
-----
pascalize( "max mule" )
```

C)

```
%dw 2.0
output application/json
import modules::Utility
-----
Utility::pascalize( "max mule" )
```

D)

```
%dw 2.0
output application/json
import modules.Utility
-----
Utility.pascalize( "max mule" )
```

A. Option A

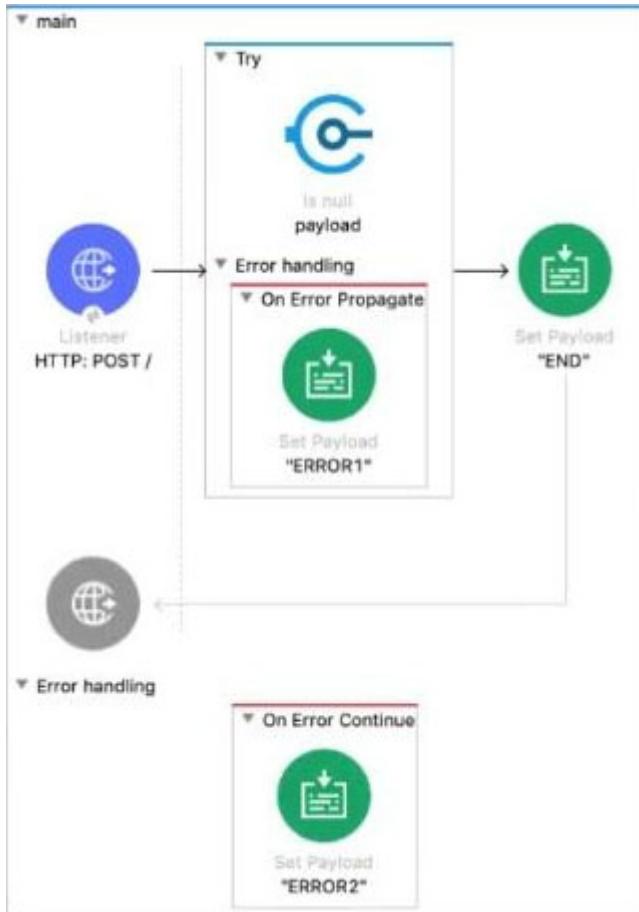
B. Option B

C. Option C

D. Option D

Answer: B

146.Refer to the exhibits.



```

<flow name="main">
    <http:listener doc:name="HTTP: POST /" config-ref="HTTP_Listener_config" path="/" />
    </http:listener>
    <try doc:name="Try">
        <validation:is-null doc:name="payload" value="#[payload]" message="Validation Error"/>
        <error-handler>
            <on-error-propagate enableNotifications="true" logException="true"
                doc:name="On Error Propagate">
                <set-payload value='ERROR1' doc:name='ERROR1' />
            </on-error-propagate>
        </error-handler>
    </try>
    <set-payload value='END' doc:name='END' />
    <error-handler>
        <on-error-continue enableNotifications="true" logException="true"
            doc:name="On Error Continue">
            <set-payload value='ERROR2' doc:name='ERROR2' />
        </on-error-continue>
    </error-handler>
</flow>

```

A web client sends a POST request to the HTTP Listener and the Validation component in the Try scope throws an error.

What response message is returned to the web client?

- A. Validation Error

- B. "END"
- C. "ERROR1"
- D. "ERROR2"

Answer: D

147. Refer to the exhibit.



The default scope in choice router recursively calls the color flow.

A web client sends a PUT request to the HTTP listener with payload Blue.

What response is returned to the web client?

- A. "Blk"
- B. "Green"
- C. A timeout error
- D. ["Blue", "Red", "Blk"]

Answer: C

Explanation:

Sequence can be described as follows.

- * When web client sends the request, it sends payload as Blue (mentioned in question)
- * In first iteration this will go to default choice, which sets payload to Red
- * Via default route, flow will call itself with payload as Red
- * In second iteration, as payload is Red, it will go to first route in choice router which will set payload to Blk and second iteration will end returning back payload as Blk to first iteration.
- * This Blk will be again set to payload and first iteration will end returning back response as Blk

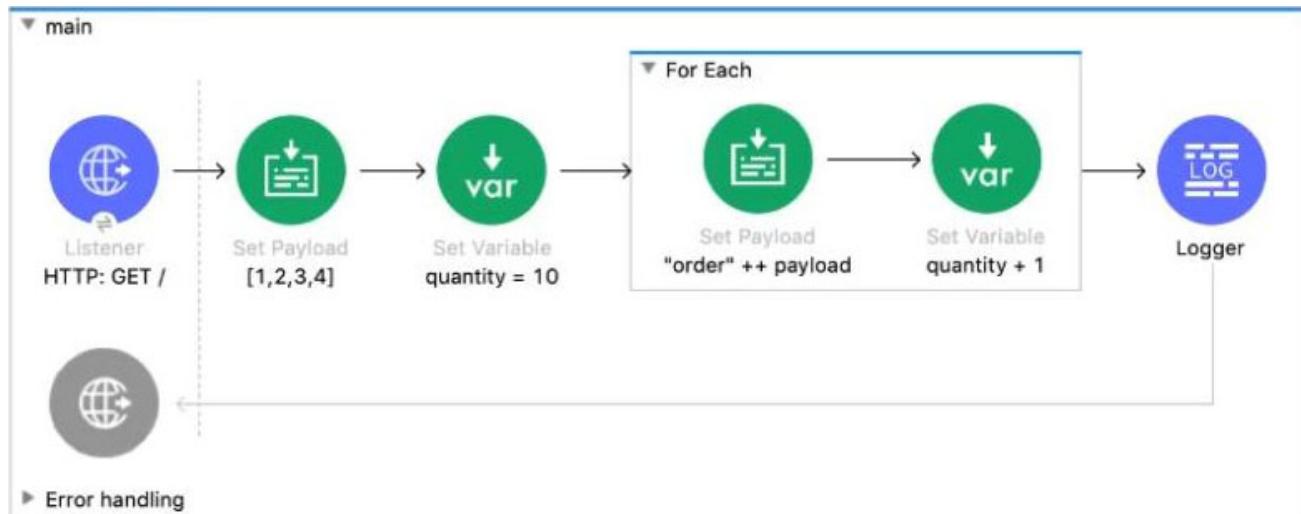
148.A function named newProdCode needs to be defined that accepts two input parameters, an integer value for itemID and a string value for productCategory, and returns a new product code.

What is the correct DataWeave code to define the newProdCode function?

- A. fun newProdCode(itemID: Number, productCategory: String) —> "PC-" ++ productCategory ++ (itemID as String)
- B. fun newProdCode(itemID: Number, productCategory: String) = "PC-" ++ productCategory ++ (itemID as String)
- C. function newProdCode(itemID: Number, productCategory: String) = "PC-" ++ productCategory ++ (itemID as String)
- D. var newProdCode(itemID: Number, productCategory: String) -> "PC-" ++ productCategory ++ (itemID as String)

Answer: B

149.Refer to the exhibits.



```
<flow name="main" >
  <http:listener doc:name="HTTP: GET /" config-ref="HTTP_Listener_config" path="/" allowedMethods="GET"/>
  <set-payload value="#[[1,2,3,4]]" doc:name="[[1,2,3,4]]" />
  <set-variable value='10' doc:name="quantity = 10" variableName="quantity" />
  <foreach doc:name="For Each" >
    <set-payload value='#[\"order\" ++ payload]' doc:name="\"order\" ++ payload' />
    <set-variable value="#[vars.quantity + 1]" doc:name="quantity + 1" variableName="quantity" />
  </foreach>
  <logger level="INFO" doc:name="Logger" message='#[[ payload, vars.quantity ]]'/>
</flow>
```

What payload and quantity are logged at the end of the main flow?

- A. [[1,2,3,4], 14]
- B. [[order1, order2, order3, order4], 14]
- C. [[1,2,3,4], 10]
- D. [order1order2order3order4, 14]

Answer: A

150.Refer to the exhibit.



A Mule event is composed of a hierarchy of objects. Where in the hierarchy are variables stored?

- A. Mule event
- B. Mule message payload
- C. Mule message
- D. Mule message attributes

Answer: A

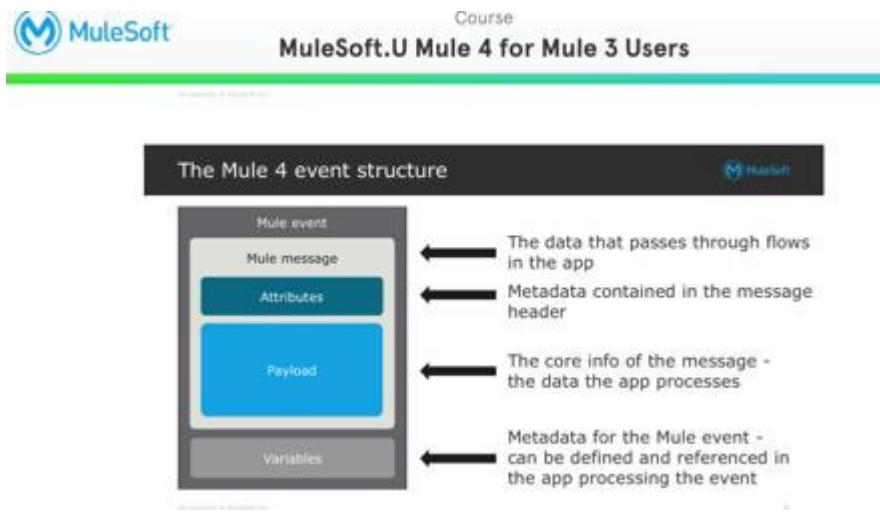
Explanation:

Variables are stored under Mule event. Please refer to below image for the hierarchy .



Graphical user interface

Description automatically generated



151.A shopping API contains a method to look up store details by department.

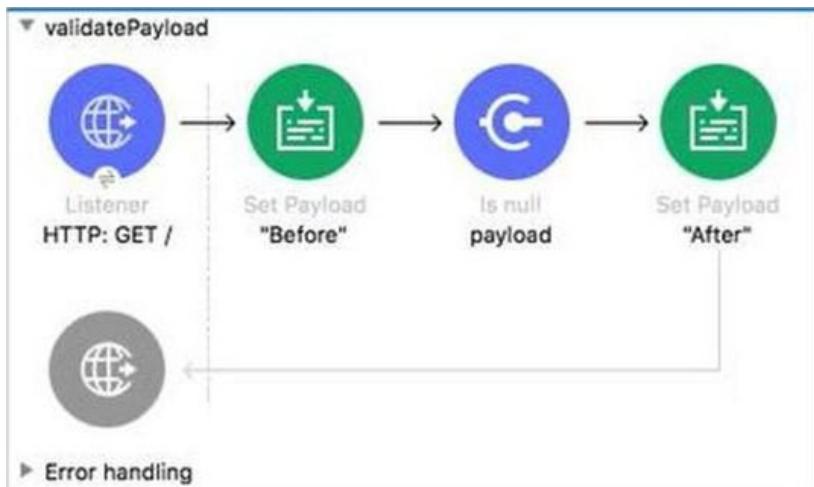
To get the information for a particular store, web clients will submit requests with a query parameter named department and uri parameter named storeId

What is valid RAML snippet that supports requests from a web client to get a data for a specific storeId and department name?

- A. 1./department:
- 2. get:
- 3. uriParameter:
- 4. storeId:
- B. 1.get:
- 2.uriParameter:
- 3.{storeId}:
- 4.queryParameter:
- 5.department:
- C. 1.get:
- 2. queryParameter:
- 3. department:
- 4. uriParameter:
- 5. {storeId}:
- D. 1./{storeId}:
- 2. get:
- 3. queryParameter:
- 4. department:

Answer: D

152.Refer to the exhibits.



```

<flow name="validatePayload" >
  <http:listener doc:name="HTTP: GET /" config-ref="HTTP_Listener_config" path="/" />
  <set-payload value="Before" doc:name='Before' />
  <validation:is-null doc:name="payload" value="#{payload}" message="Validation Error"/>
  <set-payload value="After" doc:name='After' />
</flow>
  
```

What is the response when a client submits a request to <http://localhost:8081>?

- A. After
- B. null
- C. Before
- D. Validation error

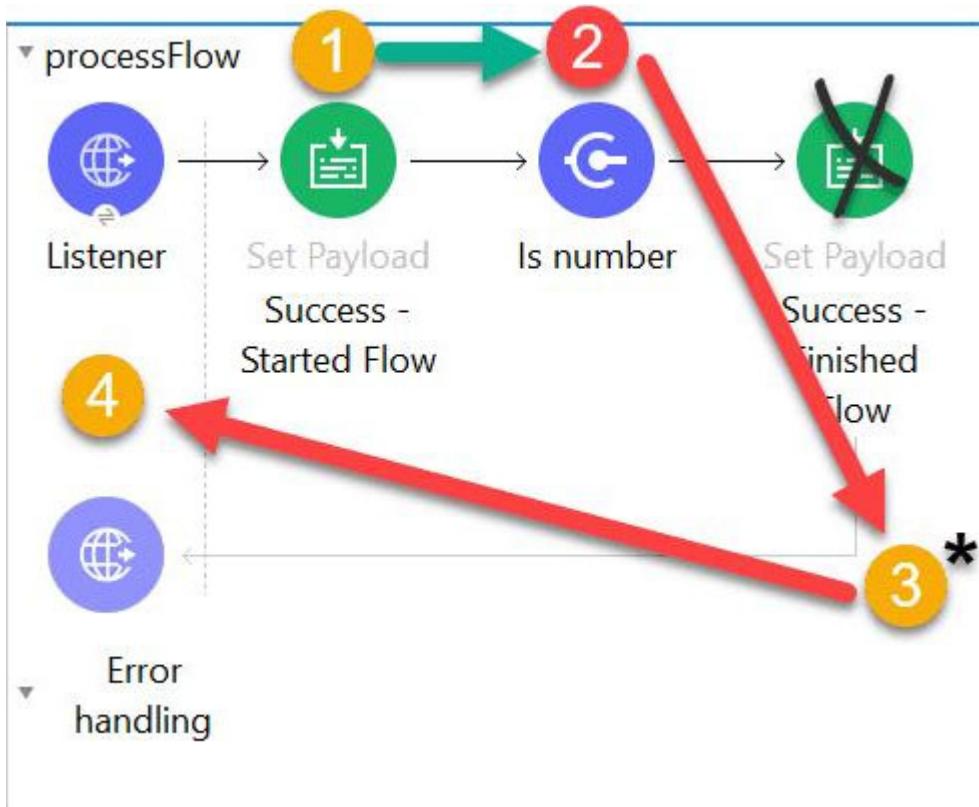
Answer: D

Explanation:

Here's specifically what is happening here:

- 1) Payload is successfully set to "Before"
- 2) Is null validation is used which will pass the message only if payload is null. In this case as payload is not null, it creates an Error Object. Flow execution stops #[error.description] = "Validation error"
- 3) Because no error handler is defined, the Mule default error handler handles the error
- 4) "Validation error" is the error message returned to the requestor in the body of the HTTP request with HTTP Status Code: 500

Reference diagram:



A picture containing timeline

Description automatically generated

153.The new RAML spec has been published to Anypoint Exchange with client credentials.

What is the next step to gain access to the API?

- A. Request access to the API in Anypoint Exchange
- B. Email the owners of the API
- C. Create a new client application
- D. No additional steps needed

Answer: A

Explanation:

Correct answer is Request access to the API in Anypoint Exchange. This way we can get clientId and Client secret which we can use to access the API

154.Refer to the exhibits.

```

1@%dw 2.0
2 output application/xml
3 var conductorIds = [592,921]
4 ---
5|

```

```

<?xml version='1.0' encoding='UTF-8'?>
<trains>
  <train>
    <engineerId>592</engineerId>
  </train>
  <train>
    <engineerId>921</engineerId>
  </train>
</trains>

```

What DataWeave expression transforms the conductorIds array to the XML output?

- A. 1. 1. trains:
- 2. 2. conductorIds map ((engId, index) ->
- 3. 3. train: {
- 4. 4. engineerId: engId
- 5. 5. }
- 6. 6.)
- B. 1. 1. { trains:
- 2. 2.
- 3. 3. conductorIds map ((engId, index) ->
- 4. 4. train: {
- 5. 5. engineerId: engId
- 6. 6. }
- 7. 7.)
- 8. 8. }
- C. 1. 1. trains:
- 2. 2. {()
- 3. 3. conductorIds map ((engId, index) ->
- 4. 4. train: {
- 5. 5. engineerId: engId
- 6. 6. }
- 7. 7.)
- 8. 8. })
- D. 1. 1. {(trains:
- 2. 2.
- 3. 3. conductorIds map ((engId, index) ->
- 4. 4. train: {
- 5. 5. engineerId: engId
- 6. 6. }
- 7. 7.)
- 8. 8. })

Answer: C

Explanation:

Points to remember:

- * XML must have a root element.
- * XML only allows one root element
- * To avoid multiple root issues, you must create a root element for the XML output, whenever we transform output
- * When mapping array elements (JSON or JAVA) to XML, wrap the map operations in {(..)} -{ } are defining the object
- () are transforming each element in the array as a key/value pair
- * The transformation to XML would fail if the above mentioned considerations were not taken into account.
- * Thus the transformation script declares a root element as trains and wraps the data in “{()}”.

Whenever you see such type of question, always look out for root element followed by {{ }} wrapping map.

I call this a "Wrap The Map" scenario. Hope it would help you remember !

155. Refer to the exhibit.

```
#%RAML 1.0
title: Accounts API
version: 1.0

/accounts:
  get:
    description: Get all accounts
    responses:
      200:
        body:
          application/json:
            example:
              id: "48292"
              name: Geordi La Forge
              address: 1 Forge Way, Midgard, CA 95928
              customer_since: "2014-01-04"
              balance: 4829.29
  post:
    description: Create an account
    body:
      application/json:
        example:
          name: Geordi La Forge
          address: 1 Forge Way, Midgard, CA 95928
          customer_since: "2014-01-04"
```

What data is expected by the POST /accounts endpoint?

A)

```
{
  "id": "48292",
  "name": "Geordi La Forge",
  "address": "1 Forge Way, Midgard, CA 95928",
  "customer_since": "2014-01-04",
  "balance": 4829.29
}
```

B)

```
<item>
  <id>48292</id>
  <name>Geordi La Forge</name>
  <address>1 Forge Way, Midgard, CA 95928</address>
  <customer_since>2014-01-04</customer_since>
  <balance>4829.29</balance>
</item>
```

C)

```
<item>
  <name>Geordi La Forge</name>
  <address>1 Forge Way, Midgard, CA 95928</address>
  <customer_since>2014-01-04</customer_since>
  <balance>4829.29</balance>
  <bank_agent_id>48-SJT-282924-KL</bank_agent_id>
</item>
```

D)

```
{
  "name": "Geordi La Forge",
  "address": "1 Forge Way, Midgard, CA 95928",
  "customer_since": "2014-01-04",
  "balance": 4829.29
  "bank_agent_id": "48-SJT-282924-KL"
}
```

- A. Option A
- B. Option B
- C. Option C
- D. Option D

Answer: D

156.What is the correct syntax to define and call a function in Database?

- A)


```
fun addKV( object: Object, key: String, value: Any ) =
  object ++ { (key):value }
---
{ hello: "world" } addKV  ( "hola","mundo" )
```
- B)


```
%function addKV( object: Object, key: String, value: Any ) =
  object ++ { (key):value }
---
addKV ( {hello: "world"}, "hola","mundo" )
```
- C)


```
%function addKV( object: Object, key: String, value: Any ) =
  object ++ { (key):value }
---
{ hello: "world" } addKV  ( "hola","mundo" )
```
- D)


```
fun addKV( object: Object, key: String, value: Any ) =
  object ++ { (key):value }
---
{ hello: "world" } addKV  ( "hola","mundo" )
```

- A. Option A
- B. Option B
- C. Option C
- D. Option D

Answer: A

Explanation:

Keyword to ad function in Dataweave transformation is fun. Hence option 2 and 4 are invalid. Also parameters needs to be passed exactly in same order as defined in function definition. Hence correct

answer is'

```
fun addKV( object: Object, key: String, value: Any) =  
object ++ {(key):(value)}
```

```
addKV ( {"hello": "world"}, "hola", "mundo" )
```

MuleSoft Documentation

Reference: <https://docs.mulesoft.com/mule-runtime/4.3/dataweave-functions>

DataWeave Function Definition Syntax

To define a function in DataWeave use the following syntax: fun myFunction(param1, param2, ...) =

<code to execute> The fun keyword starts the definition of a function. myFunction is the name you define for the function. Function names must be valid identifiers.

(param1, param2, ..., paramn) represents the parameters that your function accepts. You can specify from zero to any number of parameters, separated by commas (,) and enclosed in parentheses.

The = sign marks the beginning of the code block to execute when the function is called.

<code to execute> represents the actual code that you define for your function.

157.How can you call a subflow from Dataweave?

- A. Not possible in Mule 4
- B. Import function
- C. Lookup function
- D. Include function

Answer: C

Explanation:

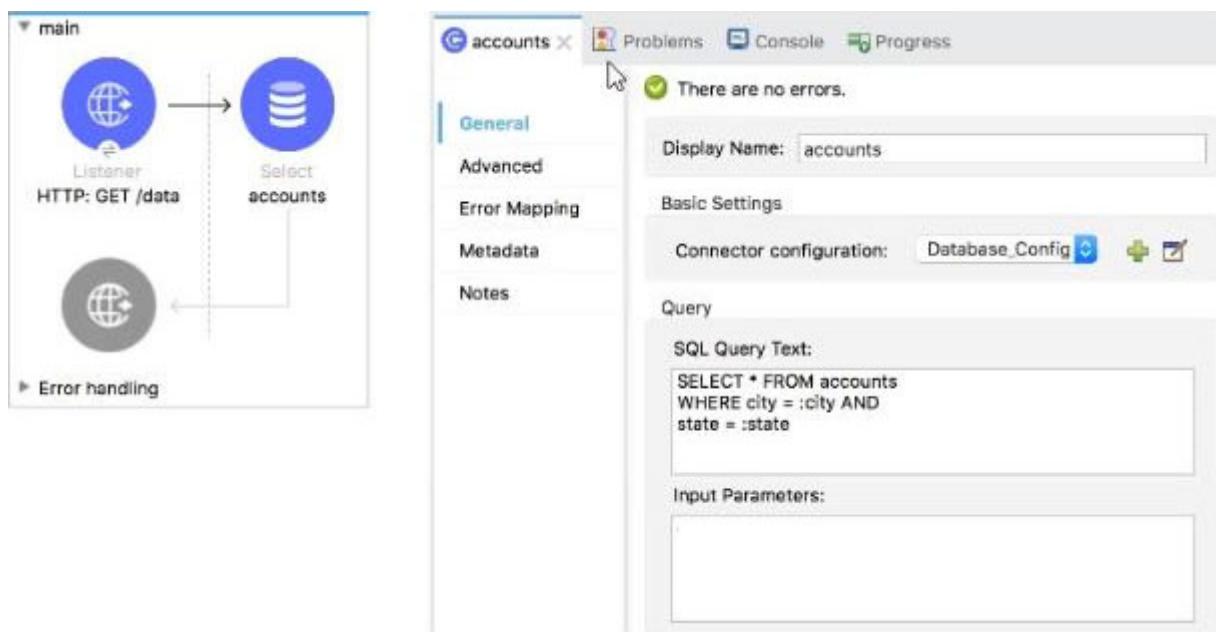
This is a trick question.

You can call only flows from DataWeave using lookup function. Note that lookup function does not support calling subflows.

A subflow needs a parent context to inherit behaviors from such as exception handling, which a flow does not need

Hence correct answer is Not possible in Mule 4

158.Refer to the exhibit.



What expression correctly specifies input parameters to pass the city and state values to the SQL query?

A)

```
#[
  {
    city: "San Francisco",
    state: "CA"
  }
]
```

B)

```
#[
  [
    "San Francisco",
    "CA"
  ]
]
```

C)

```
#[
  inputParams: {
    city: "San Francisco",
    state: "CA"
  }
]
```

D)

```
#[
  inputParams: [
    "San Francisco",
    "CA"
  ]
]
```

A. Option A

B. Option B

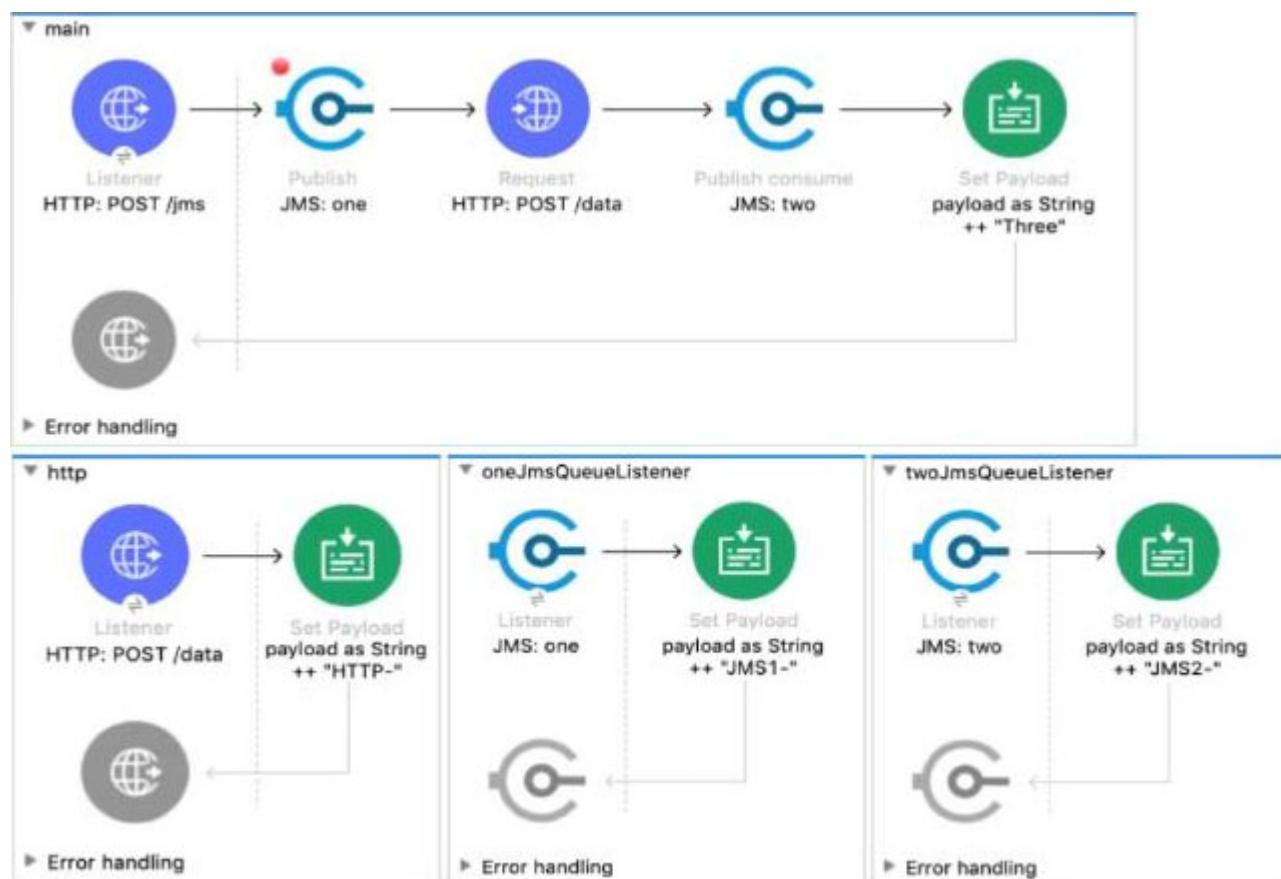
C. Option C

D. Option D**Answer: A****Explanation:**

MuleSoft Documentation

Reference: <https://docs.mulesoft.com/db-connector/1.9/database-connector-select>

159. Refer to the exhibits.



```
<flow name="main">
    <http:listener doc:name="HTTP: POST /jms" config-ref="HTTP_Listener_config" path="/jms" />
    <jms:publish doc:name="JMS: one" config-ref="JMS_Config" destination="one" >
        <jms:message outboundContentType="text/plain" />
    </jms:publish>
    <http:request method="POST" doc:name="HTTP: POST /data" url="http://localhost:8081/data"/>
    <jms:publish-consume doc:name="JMS: two" config-ref="JMS_Config" destination="two" >
        <jms:message outboundContentType="text/plain" />
    </jms:publish-consume>
    <set-payload value="#[payload ++ 'Three']" doc:name='payload as String ++ "Three"' />
```

A web client sends a POST request to the HTTP Listener with the payload "Hello-".

What response is returned to the web client?

- Hello- HTTP-] MS2-Three
- HTTP-JMS2-Three
- Helb-JMS1-HTTP-JMS2 -Three
- Hello-HTTP-Three

Answer: A

160.Refer to the exhibit.

```
#%RAML 1.0
title: Accounts API

/accounts:
  get:
    queryParameters:
      account_type:
        required: true
        enum:
          - "retail"
          - "commercial"
      industry:
        required: true
        enum:
          - "finance"
          - "construction"
          - "government"
```

This RAML specification includes a resource and method to retrieve accounts by account_type and industry.

What is the correct URI to get all retail finance accounts?

- A. /accounts/retail/finance
- B. /accounts?account_type=retail&industry=finance
- C. /accounts/account_type=retail/industry=finance
- D. /accounts?account_type:retail&industry:finance

Answer: B

Explanation:

Correct answer is /accounts?account_type=retail&industry=finance

161.What payload is returned by a Database SELECT operation that does not match any rows in the database?

- A. false
- B. null
- C. Exception
- D. Empty Array

Answer: D

Explanation:

Empty array is returned when no rows are matched.

MuleSoft Doc

Ref: <https://docs.mulesoft.com/db-connector/1.9/database-connector-select>

162.Refer to the exhibit.

The screenshot shows a RAML 1.0 API specification for 'ACME Telecom API' with version 1.0. The endpoint '/accounts' has a 'post' method with a 'body: application/json' example. The example JSON payload is:

```
{
  "account_id": "562-123-3456",
  "plan": "all-inclusive"
}
```

Below the API spec is a 'Headers' section with a single header 'Content-Type' set to 'text/plain'. A status bar at the bottom indicates '415 Unsupported Media Type' and a duration of '1058.44 ms'.

Below the status bar is a cURL command output:

```
curl -X POST -H "Content-Type: text/plain" https://api.acmecom.com/accounts
```

The response body is:

```
{"message": "Unsupported media type"}
```

What should be changed to fix the 415 error?

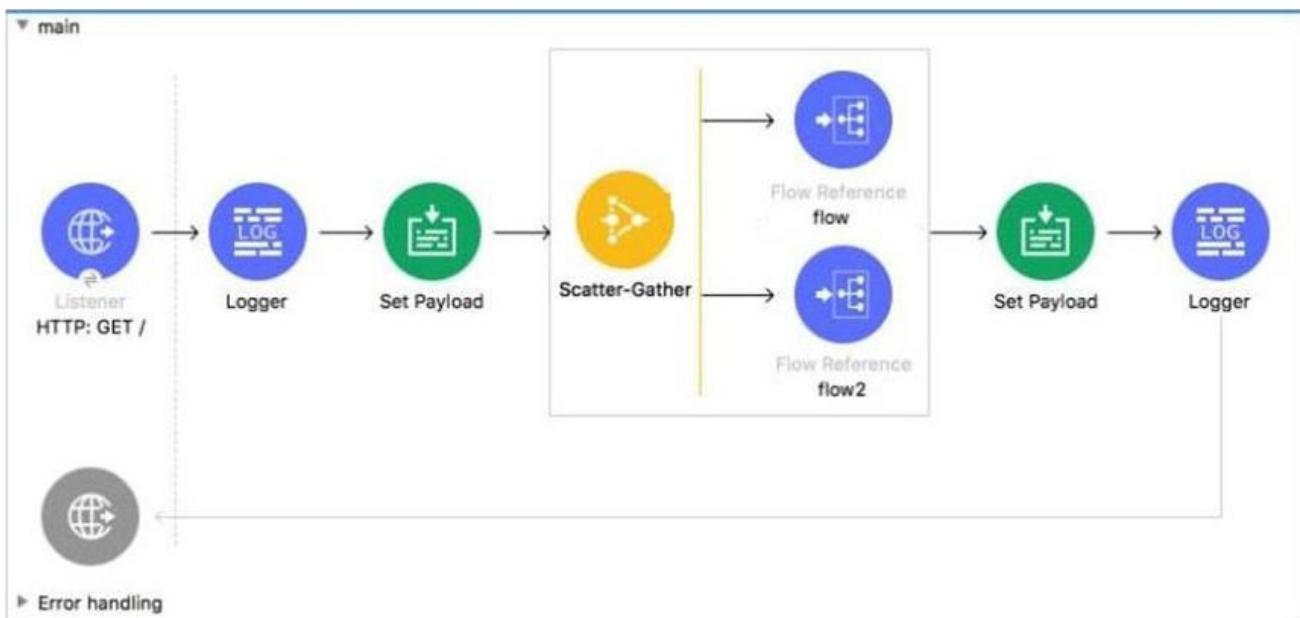
- A. set the response Content-Type header to text/plain
- B. set the response Content-Type header to application/json
- C. Set the request Content-Type header to application/json
- D. set the request Content-Type header to text/plain

Answer: C

Explanation:

The HTTP 415 Unsupported Media Type client error response code indicates that the server refuses to accept the request because the payload format is in an unsupported format. The format problem might be due to the request's indicated Content-Type or Content-Encoding, or as a result of inspecting the data directly. In this case as per RAML specification data is expected in application/json and in request Content-Type is set as "text/plain" which is incorrect. Hence solution is set the request Content-Type header to application/json

163. Refer to exhibits.



In the execution of the Scatter-Gather, the flow route completes after 10 seconds and the flow2 route completes in 40 seconds.

How many seconds does it take for the Scatter-Gather to complete?

- A. 10
- B. 50
- C. 40
- D. 20

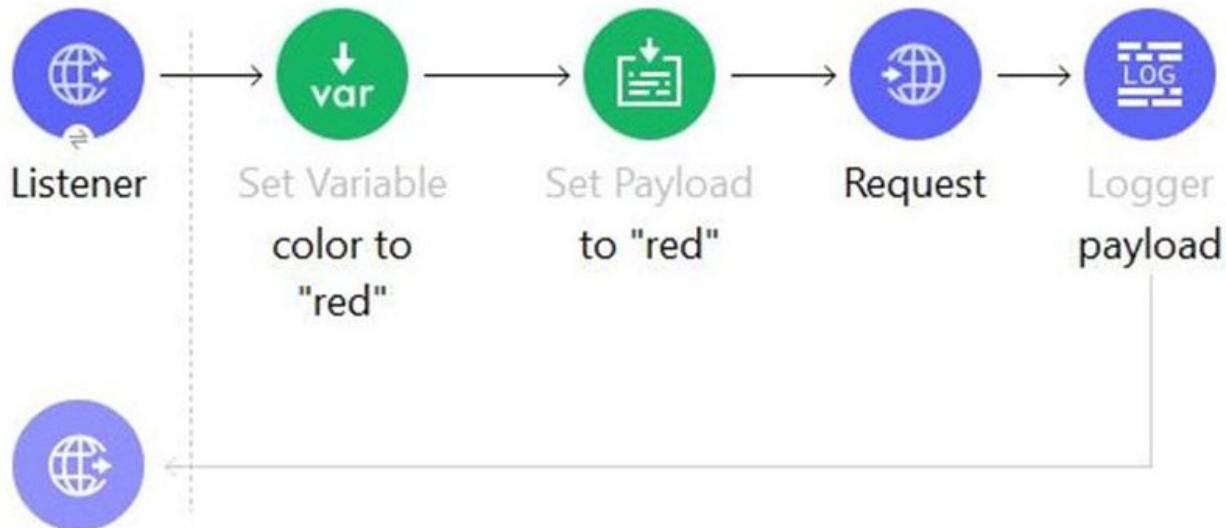
Answer: C

Explanation:

Scatter-Gather sends the event to each routes concurrently. Hence both route in this example will start in parallel. So total time to complete processing is 40 seconds which is option 3

164. Refer to the exhibits.

▼ colorFlow



▼ DecisionMaker



```

<flow name="colorFlow" doc:id="c0a8245d-7f64-41ec-b611-f3d55407a9c1" >
    <http:listener doc:name="Listener" doc:id="e0342e2c-504b-44c0-96e7-b356528215fb" config-ref="HTTP_Listener_config" path="/color"/>
    <set-variable value="red" doc:name="color to "red"" doc:id="8bc2c51f-b23b-4b5e-afc4-84c7f4a6ed1f" variableName="color"/>
    <set-payload value="red" doc:name="to "red"" doc:id="0d7ee5b9-3a8f-461d-b1f4-9ea26fa78701" />
    <http:request method="POST" doc:name="Request" doc:id="54722652-f25c-459c-a1b-75f551c6d4f5" config-ref="HTTP_Request_configuration" path="/decisionmaker"/>
    <logger level="INFO" doc:name="payload" doc:id="69c768e3-f169-469b-b60d-863fb51428e5" message="#{payload}"/>
</flow>
<flow name="DecisionMaker" doc:id="14f2a5e7-84f9-4171-891e-3d0ed16d6d5e" >
    <http:listener doc:name="HTTP POST/decisionMaker" doc:id="b9199cd2-5106-4bf9-84ca-b5aab42f4532" config-ref="HTTP_Listener_config" path="/decisionmaker"/>
    <set-payload value="#{if (vars.color == null)'white' else 'blue'}" doc:name="if color variable is null then white else blue" doc:id="9fb8201c-d719-4856-9a56-ed989bf855ce" />
</flow>

```

In the color flow, both the variable named color and payload are set to "red".

An HTTP POST request is then sent to the decideColor flow's HTTP Listener.

What is the payload value at the Logger component after the HTTP request completes?

- A. white
- B. red
- C. blue
- D. Error message

Answer: C

Explanation:

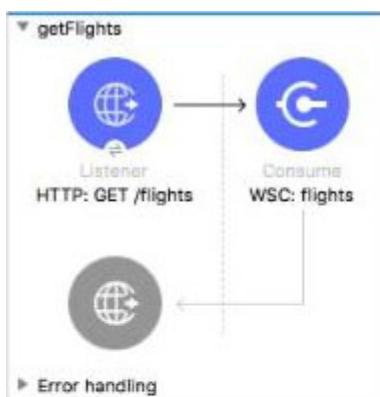
Correct answer is white.

Key thing to note here is that variables are not available to the called flow when it is invoked using HTTP request.

So the flow goes like below

- 1) Color variable is set to red
- 2) Payload is set to red
- 3) Child flow is called using HTTP request which means variables are not available in called flow (They would have been if flow reference activity would have been used)
- 4) Hence set payload activity will set payload to white as color variable is null
- 5) Payload returned in main flow is white.
- 6) So finally output of logger is white

165. Refer to the exhibits.



```
*****
Message      : Cannot build default body request for operation [findFlight], the operation requires input parameters.
Error type   : WSC:BAD_REQUEST
Element      : 10.02.06-soaperrorFlow/processors/0 @ 10.02.06-soaperror:10.02.06-soaperror.xml:21 (Consume)
Element XML  : <wsc:consume doc:name="Consume" doc:id="49a84a74-2848-4a65-b93f-dcbf59fd4412" config-ref="Web_Service_Consumer_Config" operation="findFlight"></wsc:consume>
*****
```

(set debug level logging or '-Dmule.verbose.exceptions=true' for everything)

A web client submits a request to `http://localhost:8081/flights?destination=SFO` and the Web Service Consumer throws a WSC: BAD_REQUEST error.

What is the next step to fix this error?

- A. Set a header in the Consume operation equal to the destination query parameter
- B. set a SOAP payload before the Consume operation that contains the destination query parameter
- C. set a property in the Consume operation equal to the destination query parameter

D. set a JSON payload before the Consume operation that contains the destination query parameter

Answer: B

Explanation:

As can be seen in error message, SOAP service findFlights expects the SOAP payload.

This can be set using transform message processor which forms SOAP payload before the Consume operation that contains the destination query parameter

166.How does APIkit determine the number of flows to generate from a RAML specification?

- A. Creates a separate flow for each resource
- B. Creates a separate flow for each HTTP method
- C. Creates a separate flow for each response status code
- D. Creates a separate flow for each resource that contains child resources

Answer: B

Explanation:

APIKit Creates a separate flow for each HTTP method

167.What asset cannot be created using Design Center?

- A. Mule Applications
- B. API fragments
- C. API specifications
- D. API portals

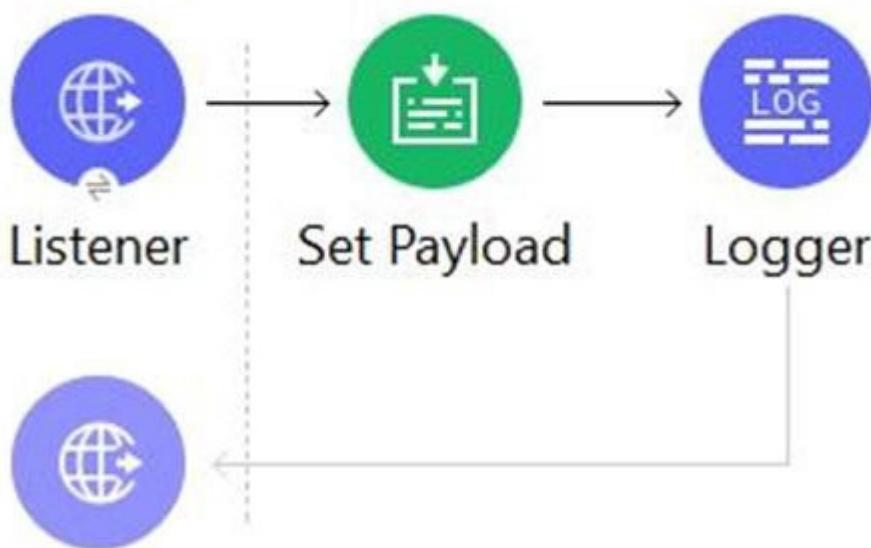
Answer: D

Explanation:

API portal are created by API Exchange and cannot be created by Design Center

168.Refer to the payload.

▼ LoggerFlow



▶ Error handling

```

<flow name="LoggerFlow" doc:id="d5015e61-b3b5-4833-8c5e-ed176a3f6cb0" >
    <http:listener doc:name="Listener" doc:id="5ae3d668-7075-4236-a523-a08b03186b53" config-ref="HTTP_Listener_config" path="/Log" />
    <set-payload value="#[{
        "student": {
            "name": "Anay",
            "age": 6
        }
    }]" doc:name="Set Payload" doc:id="7763301e-1fed-48fc-968d-47c1b113c867" />
    <logger level="INFO" doc:name="Logger" doc:id="8e1c416b-78bd-44fb-b0db-cd5b3d382c6d" message='Result #[INFO"++ payload]' />
</flow>
  
```

The Set payload transformer sets the payload to an object. The logger component's message attribute is configured with the string "Result #[INFO"++ payload]"

What is the output of logger when this flow executes?

- A. Result INFOpayload
- B. Result INFO{"student":{"name":"Anay","age":6}}
- C. 1. 1. "You called the function '++' with these arguments:
- 2. 2. 1: String ("INFO")
- 3. 3: Object ({student: {name: "Anay" as String {class: "java.lang.String"}, age: 6 as Number...}})
- D. Error : You evaluated inline expression # without ++

Answer: C

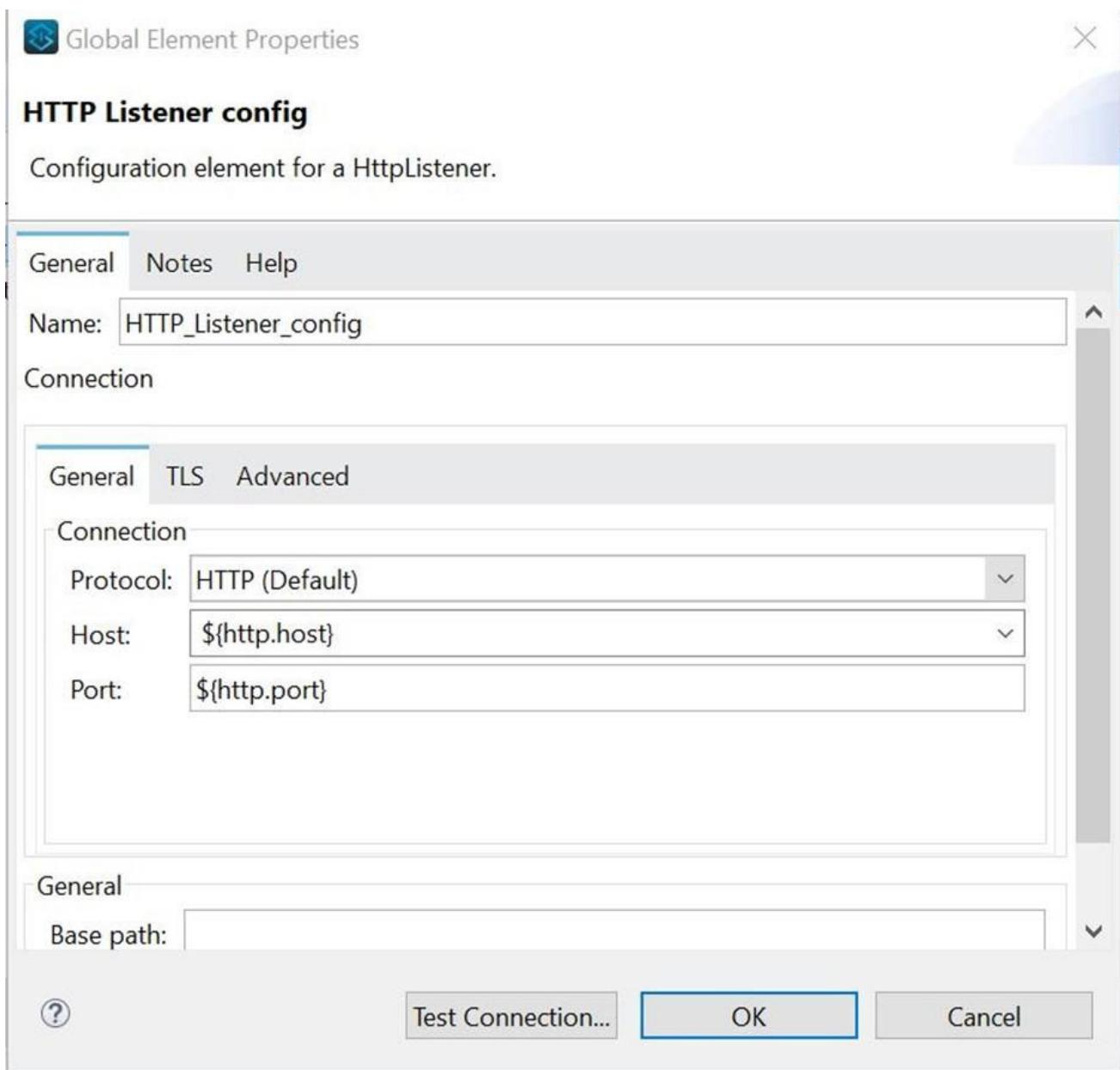
Explanation:

Correct answer is as below as concatenation operation works only with string and not with the objects. In this case payload is object.

"You called the function '++' with these arguments:

- 1: String ("INFO")
- 2: Object ({student: {name: "Anay" as String {class: "java.lang.String"}, age: 6 as Number...}})

169. Refer to the below exhibit.



A Mule application configures a property placeholder file named config.yaml to set some property placeholders for an HTTP connector.

What is the valid properties placeholder file to set these values?

- A. 1. http:
- 2. host = "localhost"
- 3. port = "8081"
- B. 1. http:
- 2. basepath: "api"
- 3. host: "localhost"
- 4. port: "8081" (Correct)
- C. 1. http.host = localhost
- 2. http.port = 8081
- D. 1. {
- 2. http:

3. basePath: "api",
4. port: "8081",
5. host: " localhost"

Answer: B

Explanation:

Correct answer is as below as it follows the correct syntax

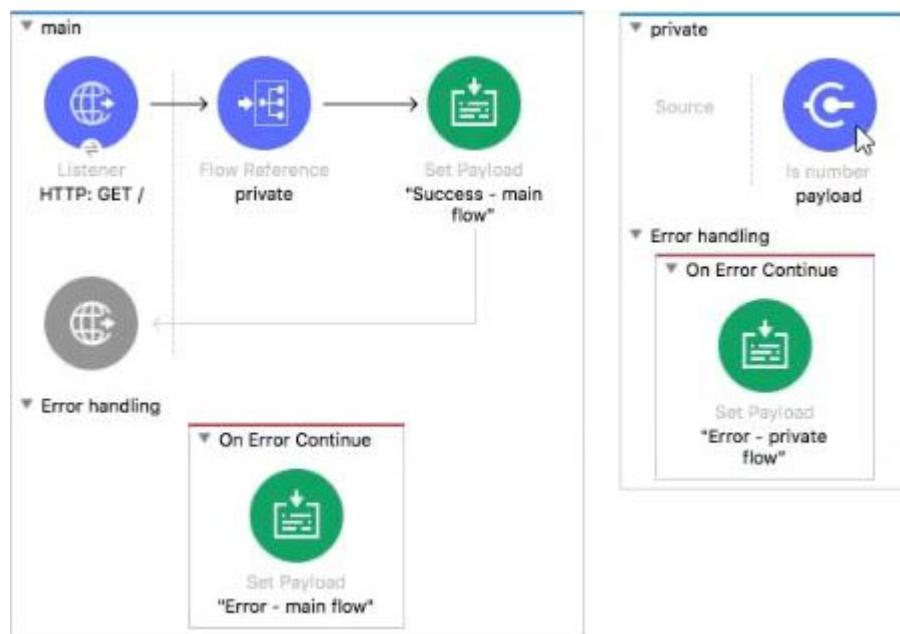
http:

basepath: "api"

host: "localhost"

port: "8081"

170. Refer to the exhibits.



```

<flow name="main" >
    <http:listener doc:name="HTTP: GET /" config-ref="HTTP_Listener_config" path="/" />
    <flow-ref doc:name="private" name="private"/>
    <set-payload value="Success - main flow" doc:name="Success - main flow" />
    <error-handler>
        <on-error-continue enableNotifications="true" logException="true" doc:name="On Error Continue" >
            <set-payload value="Error - main flow" doc:name="Error - main flow" />
        </on-error-continue>
    </error-handler>
</flow>

<flow name="private" >
    <validation:is-number numberType="INTEGER" doc:name="payload" value="#{payload}" message="Validation Error" />
    <error-handler >
        <on-error-continue enableNotifications="true" logException="true" doc:name="On Error Continue" >
            <set-payload value="Error - private flow" doc:name="Error - private flow" />
        </on-error-continue>
    </error-handler>
</flow>

```

The Validation component in the private flow throws an error.

What response message is returned to a client request to the main flow's HTTP Listener?

- A. Error - private flow

- B. Error - main flow
- C. Success - main flow
- D. Validation Error

Answer: B

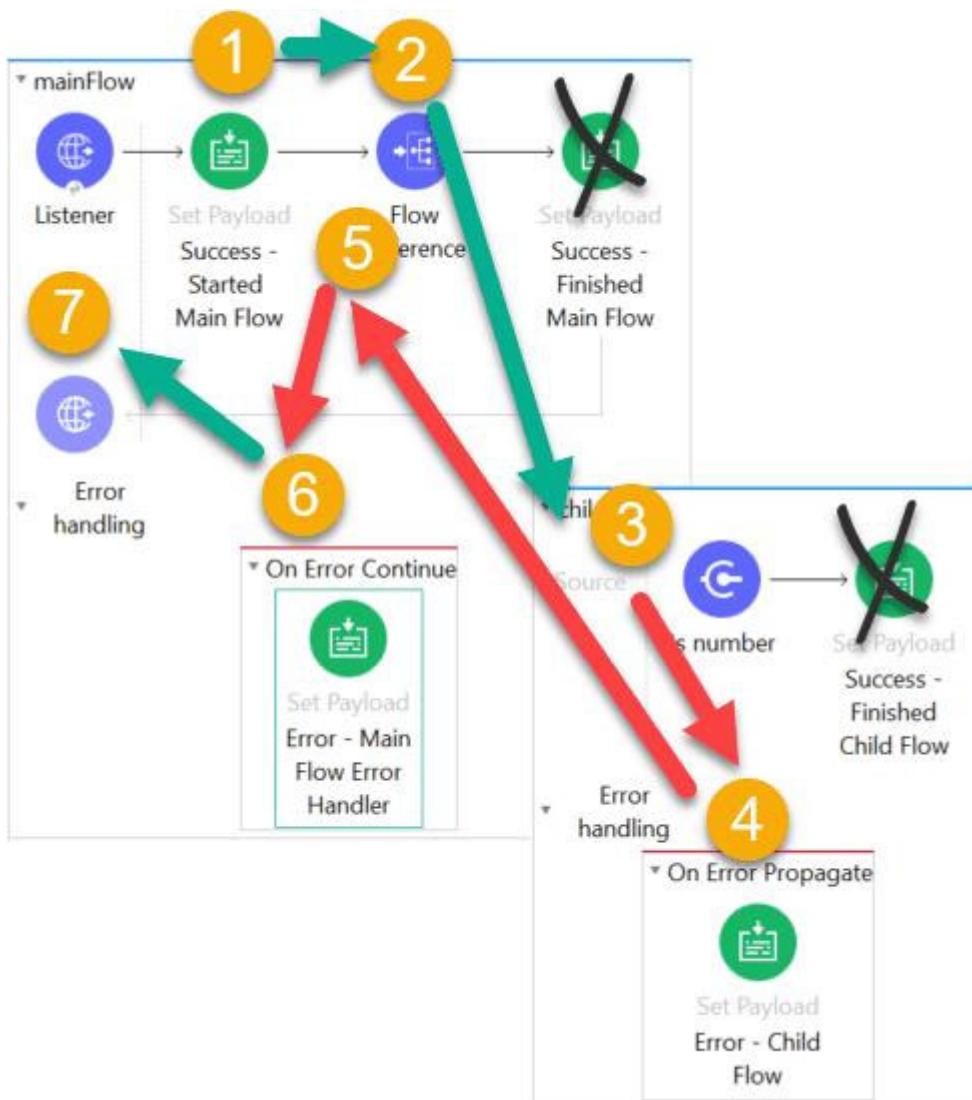
Explanation:

Error in validation component will get processed by Processer level On Error Propagate block and then error will be rethrown which will get processed by flow level error handler which will set payload to "Error-main flow".

Hence correct answer is Error - main flow

- 1) Request is received by HTTP listener
 - 2) Try scope gets executed
 - 3) The validator component in the Try scope creates an Error Object because the payload is not null.
 - 4) The On Error Propagate handles the error. The payload is set to "Error – Try scope"
 - 6) "Error – Try scope" is returned to the 'On Error Continue' block. Main flow execution stops. Payload is set to "Error - main flow"
 - 7) "Error - main flow" is returned to the requestor in the body of the HTTP request. HTTP Status Code: 200
-

Reference Diagram though not exactly same, conditions are similar. They will help you answer any new question on error handling in real exam:



Timeline

Description automatically generated

171.In the Database On Table Row operation, what does the Watermark column enable the On Table Row operation to do?

- A. To avoid duplicate processing of records in a database.
- B. To delete the most recent records retrieved from a database to enable database caching
- C. To enable duplicate processing of records in a database
- D. To save the most recent records retrieved from a database to enable database caching

Answer: A

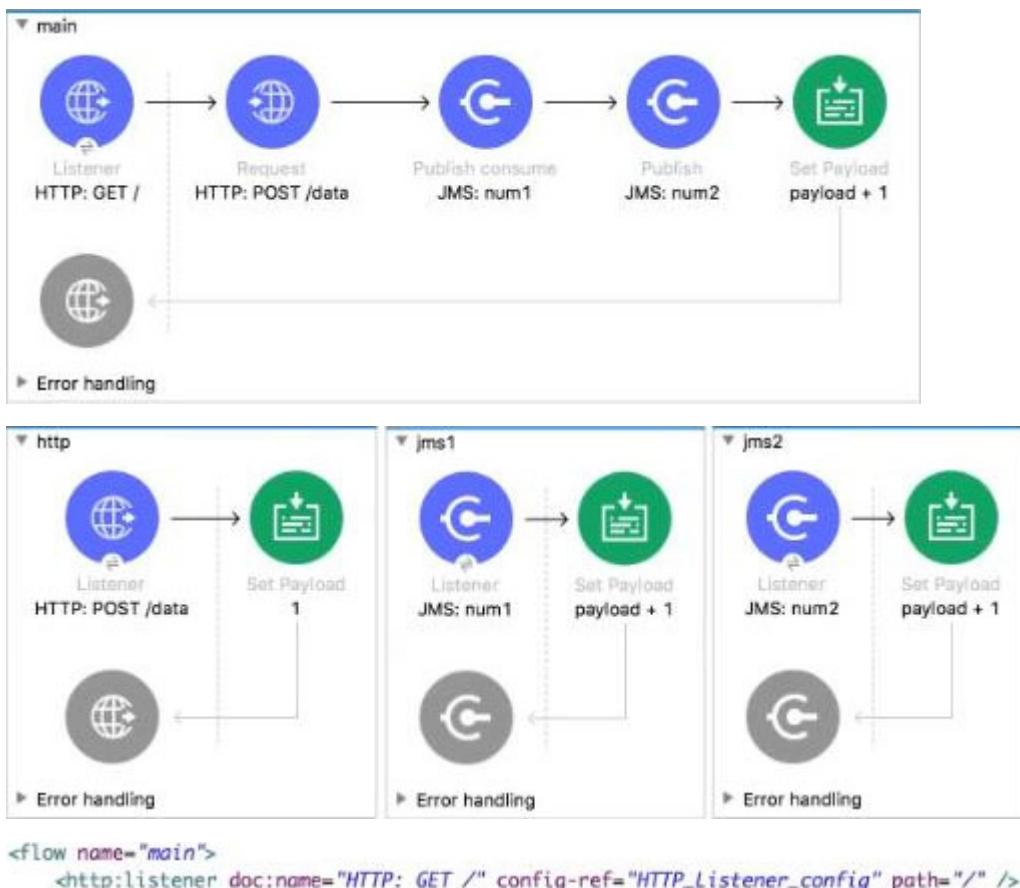
Explanation:

The correct answer is To avoid duplicate processing of records in a database.

If a watermark column is provided, the values taken from that column are used to filter the contents of the next poll, so that only rows with a greater watermark value are returned. If an ID column is provided, this component automatically verifies that the same row is not picked twice by concurrent polls.

Mule doc reference: <https://docs.mulesoft.com/db-connector/1.8/database-documentation#listener>

172.Refer to the exhibit.



```
<flow name="main">
  <http:listener doc:name="HTTP: GET /" config-ref="HTTP_Listener_config" path="/" />
  <http:request method="POST" doc:name="HTTP: POST /data" url="http://localhost:8081/data"/>
  <jms:publish-consume doc:name="JMS: num1" config-ref="JMS_Config" destination="num1"/>
  <jms:publish doc:name="JMS: num2" config-ref="JMS_Config" destination="num2"/>
  <set-payload value="#[payload + 1]" doc:name="payload + 1" />
</flow>
```

What payload is returned from a request to http://localhost:8081/

Refer to the exhibits, what payload is returned from a request to http://localhost:8081/?

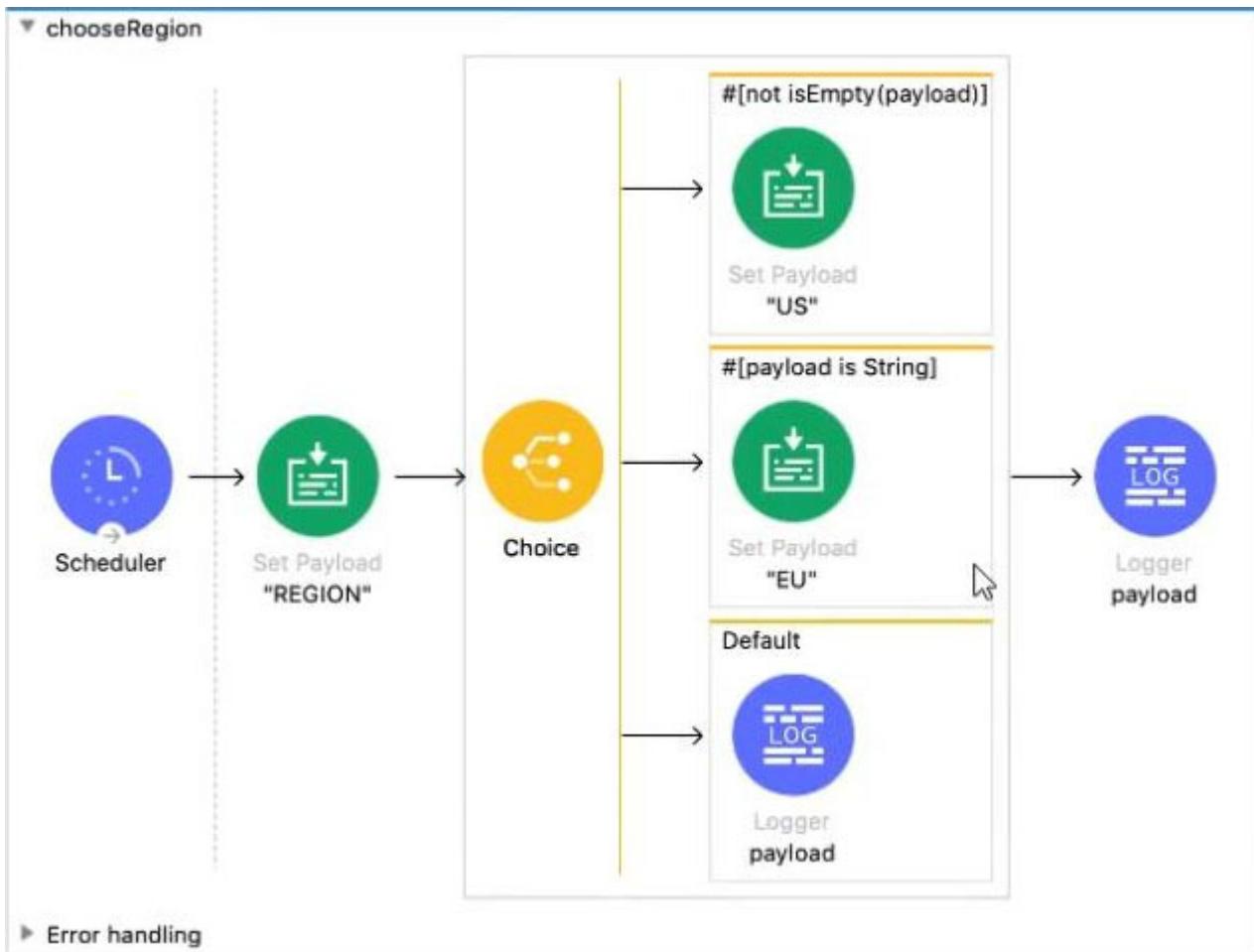
- A. 1
- B. 2
- C. 3
- D. 4

Answer: C

Explanation:

The flow can be described as below. 1) First HTTP POST request is made in which payload is set to 1 and it gets returned to our main flow. 2) Second call is initiated for JMS Publish Consume JMS: num1 which adds 1 to the payload which makes it as 2. Note that publish consume is a synchronous operation. Hence payload is returned to main flow. 3) Third call is initiated for JMS Publish JMS: num2 which adds 1 to the payload. Note that publish is asynchronous operation. Hence payload is never returned to main flow. So payload in main flow is still 2. 4) Finally Set Payload increments payload by 1 making payload as 3 which is returned by the flow. Hence option 3 is the correct answer.

173.Refer to the exhibits.



```

<flow name="chooseRegion" >
    <scheduler doc:name="Scheduler" >
        <scheduling-strategy >
            <fixed-frequency frequency="5000"/>
        </scheduling-strategy>
    </scheduler>
    <set-payload value='#[\"REGION\"]' doc:name='\"REGION\"' />
    <choice doc:name="Choice" >
        <when expression='#[not isEmpty(payload)]'>
            <set-payload value='#[\"US\"]' doc:name='\"US\"' />
        </when>
        <when expression='#[payload is String]'>
            <set-payload value='#[\"EU\"]' doc:name='\"EU\"' />
        </when>
        <otherwise>
            <logger level="INFO" doc:name="payload" message="#[payload]"/>
        </otherwise>
    </choice>
    <logger level="INFO" doc:name="payload" message="#[payload]"/>
</flow>
  
```

A Mule application contains a Choice router.

What is logged when the flow completes?

- A. EU
- B. US

C. "REGION"

D. ["US", "EU"]

Answer: B

174.A Utility.dwl is located in a Mule project at src/main/resources/modules. The Utility.dwl file defines a function named encryptString that encrypts a String.

What is the correct DataWeave to call the encryptString function in a Transform Message component?

A. 1. %dw 2.0

2. output application/json

3. import modules::Utility

4. ---

5. Utility::encryptString("John Smith")

B. 1. %dw 2.0

2. output application/json

3. import modules::Utility

4. ---

5. encryptString("John Smith")

C. 1. %dw 2.0

2. output application/json

3. import modules.Utility

4. ---

5. encryptString("John Smith")

D. 1. %dw 2.0

2. output application/json

3. import modules.Utility

4. ---

5. Utility.encryptString("John Smith")

Answer: B

Explanation:

Correct answer is

%dw 2.0

output application/json

import modules::Utility

Utility::encryptString("John Smith")

DataWeave 2.0 functions are packaged in modules. Before you begin, note that DataWeave 2.0 is for Mule 4 apps. For Mule 3 apps, refer to DataWeave Operators in the Mule 3.9 documentation. For other Mule versions, you can use the version selector for the Mule Runtime table of contents.

Functions in the Core (dw::Core) module are imported automatically into your DataWeave scripts. To use other modules, you need to import the module or functions you want to use by adding the import directive to the head of your DataWeave script, for example:

```
import dw::core::Strings
```

```
import camelize, capitalize from dw::core::Strings import * from dw::core::Strings
```

The way you import a module impacts the way you need to call its functions from a

DataWeave script. If the directive does not list specific functions to import or use * from to import all functions from a function module, you need to specify the module when you call the function from your script. For example, this import directive does not identify any functions to import from the String module, so it calls the pluralize function like this:

```
Strings::pluralize("box").
```

Transform

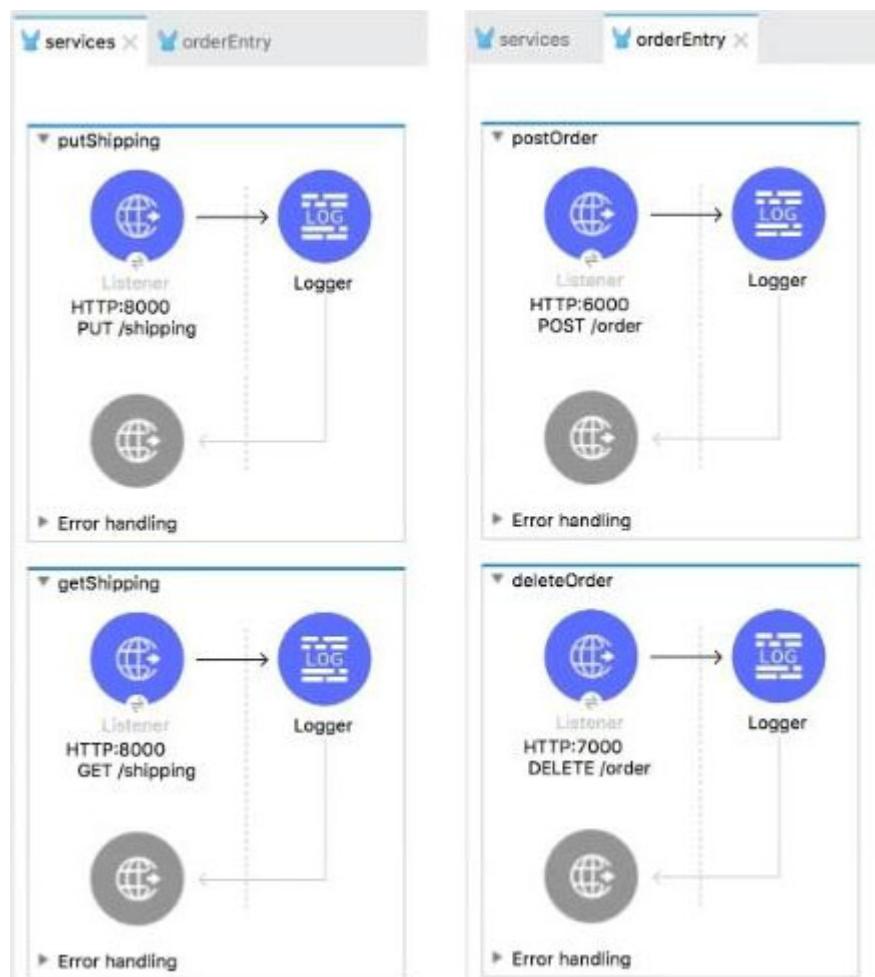
```
%dw 2.0
```

```
import dw::core::Strings
```

```
output application/json
```

```
{ 'plural': Strings::pluralize("box") }
```

175. Refer to the exhibits.



The two Mule configuration files belong to the same Mule project. Each HTTP Listener is configured with the same host string and the port number, path, and operation values are shown in the display names.

What is the minimum number of global elements that must be defined to support all these HTTP Listeners?

A. 1

B. 2

C. 3

D. 4

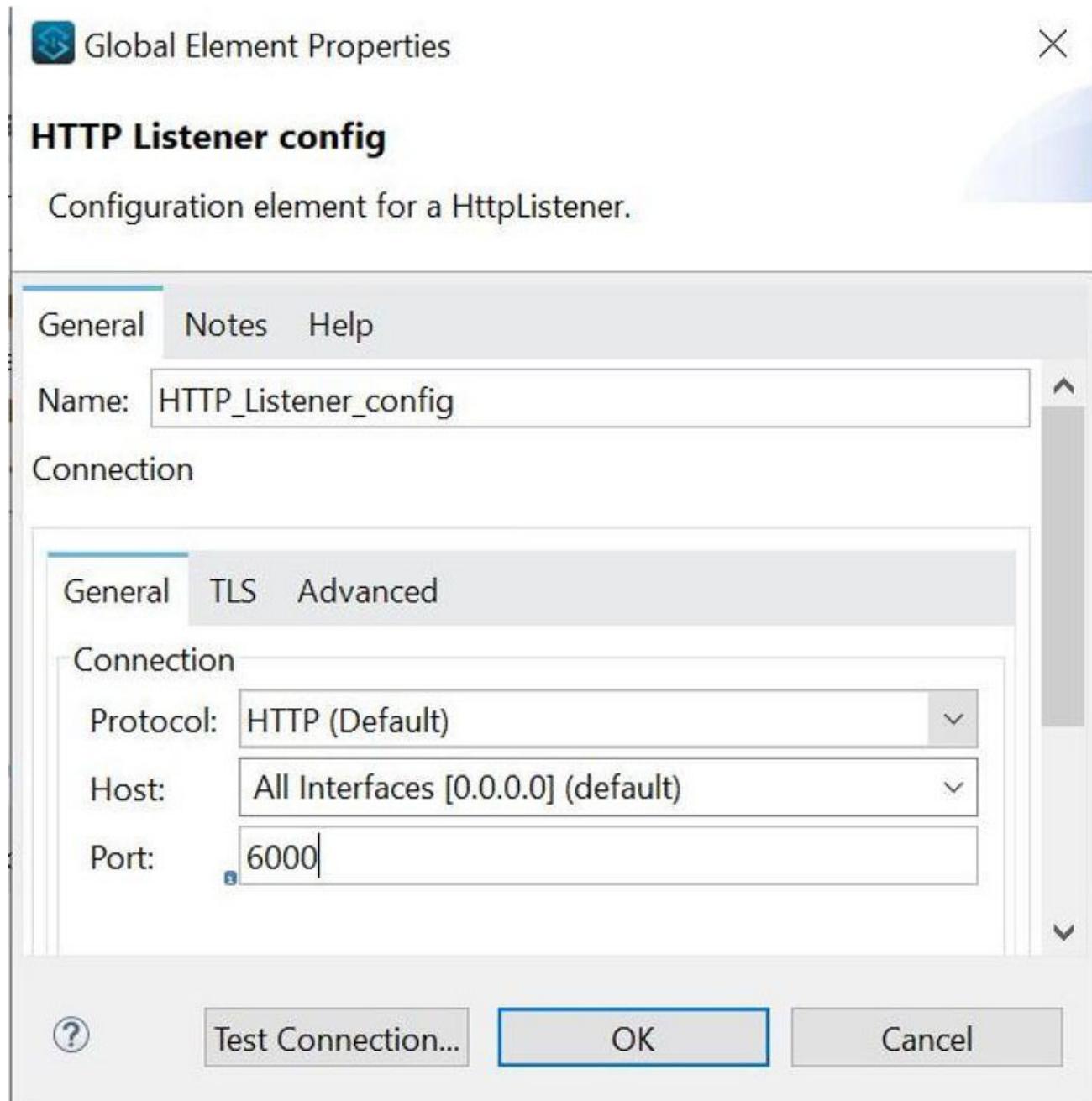
Answer: C

Explanation:

In this case three configurations will be required each for port 8000, 6000 and 7000.

There would be three global elements defined for HTTP connections.

Each HTTP connection will have host and port. One example shown below with host as localhost and port 6000



Graphical user interface, application

Description automatically generated

176.An organization's Center for enablement (C4E)has built foundational assets (API specifications and implementation templates, common frameworks, and best practices guides) and published them to

Anypoint Exchange.

What is a metric related to these foundational assets that helps the organization measure the success of its C4E efforts?

- A. Utilization counts of foundational assets in production applications
- B. Correlation of each foundational asset with the counts of developers that download such asset
- C. Correlation of key performance indicators (KPI) of production applications with foundational assets
- D. Count how many Lines Of Business (LoBs) consumed each foundational asset

Answer: C

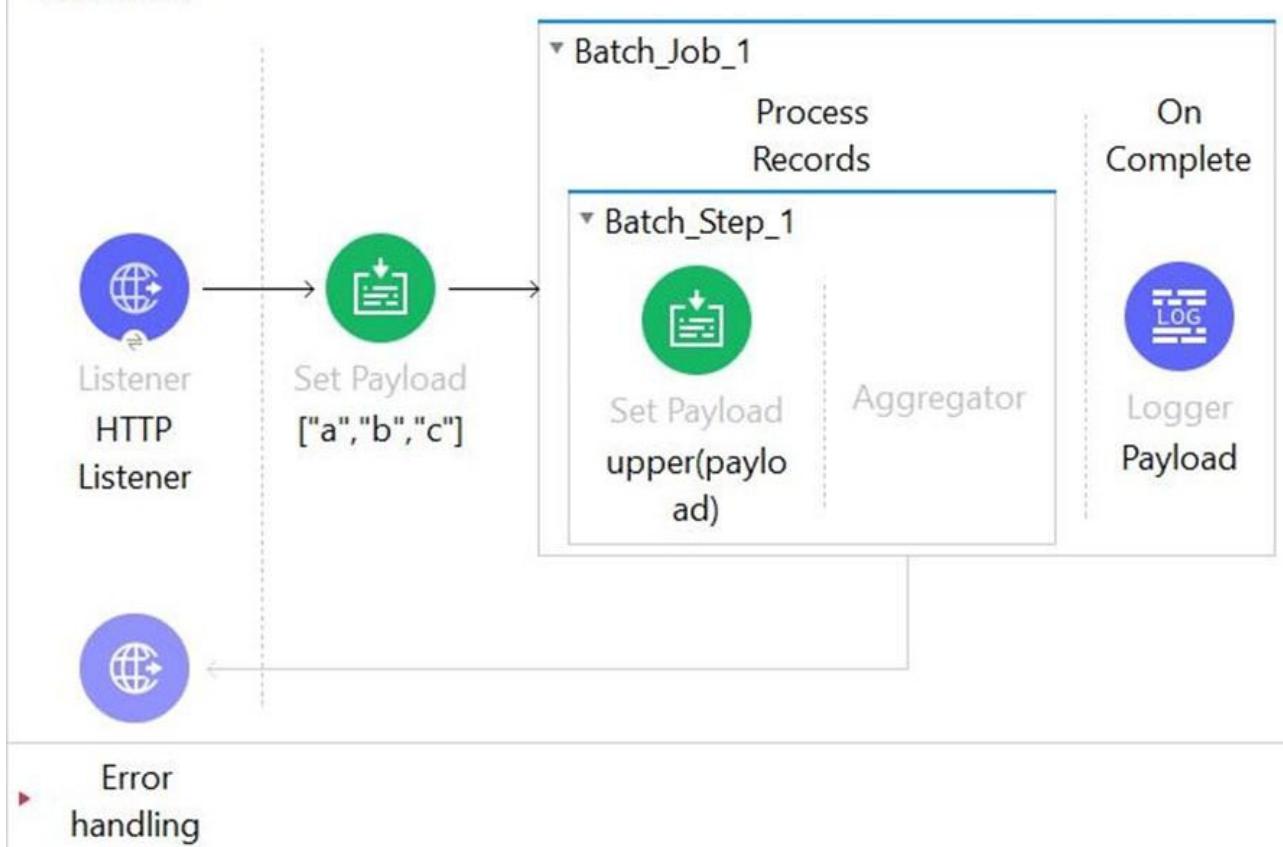
Explanation:

Below are the Key performance indicators (KPIs), to measure and track the success of the C4E and its activities, as well as the growth and health of the application network. Most of the metrics can be extracted automatically, through REST APIs, from Anypoint Platform.

- # of assets published to Anypoint Exchange
- # of interactions with Anypoint Exchange assets
- # of APIs managed by Anypoint Platform
- # of System APIs managed by Anypoint Platform
- # of API clients registered for access to APIs
- # of API implementations deployed to Anypoint Platform
- # of API invocations
- # or fraction of lines of code covered by automated tests in CI/CD pipeline
- Ratio of info/warning/critical alerts to number of API invocations

177. Refer to the exhibits.

▼ BatchFlow



```
<flow name="BatchFlow" doc:id="7f72df3e-46cc-49b4-918f-5e0374eb03c2" >
    <http:listener doc:name="HTTP Listener" doc:id="c530cc32-b45c-479f-9b02-0a0f8ba2a198" config-ref="HTTP_Listener_config" path="/" />
    <set-payload value='#[["a","b","c"]]' doc:name='["a","b","c"]' doc:id="bb9a0940-252f-45e5-87db-45579a748022" />
    <batch:job jobName="Batch_Job_1" doc:id="793599e9-fa2b-41ef-b246-d1ba975fd14d" >
        <batch:process-records >
            <batch:step name="Batch_Step_1" doc:id="a7c8931e-9c22-4fa8-8ac6-633586bd8f57" >
                <set-payload value="#[upper(payload)]" doc:name="upper(payload)" doc:id="5e1e08e7-58a7-4ca5-9178-852b4a1e9e9e" />
            </batch:step>
        </batch:process-records>
        <batch:on-complete >
            <logger level="INFO" doc:name="Payload" doc:id="703bd1cb-2b0f-423a-a9ea-f26e28280862" message="#[payload]" />
        </batch:on-complete>
    </batch:job>
</flow>
```

The Batch job processes an array of strings.

What information is logged by the logger component after the batch job scope completes processing of the input payload?

A. Total Records Processed: 3

Successful Records: 3

Failed Records: 0

payload: ["A","B","C"]

B. ["A","B","C"]

C. Total Records Processed: 3

Successful Records: 3

Failed Records: 0

payload: ["a", "b", "c"]

D. Total Records Processed: 3

Successful Records: 3

Failed Records: 0

Answer: D**Explanation:**

Correct answer is as below. On complete phase only has access to batch job result statistics and payload is not available.

Total Records Processed: 3

Successful Records: 3

Failed Records: 0

Mule Ref Doc: <https://docs.mulesoft.com/mule-runtime/4.3/batch-processing-concept#on-complete>

178.Which of the following is invalid type of event processor which can be used as a router ?

- A. Choice
- B. Round Robin
- C. Pick First
- D. First Successful

Answer: C**Explanation:**

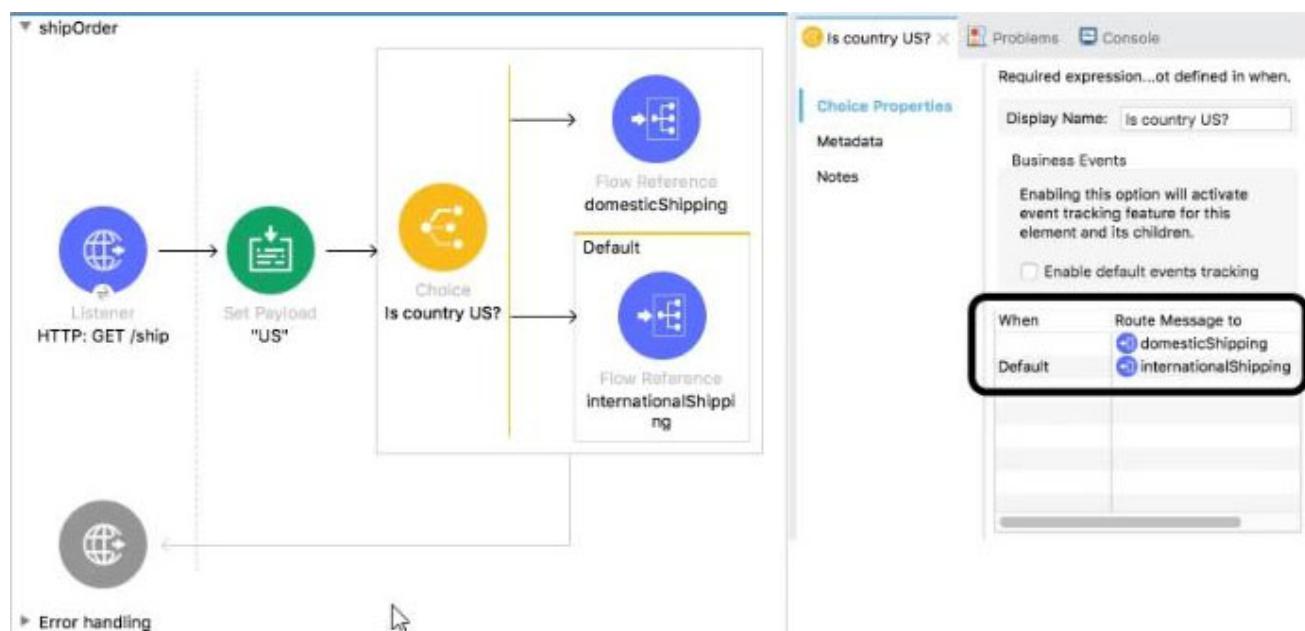
Pick First is not valid type. Rest all are valid type of event processor.

Choice: <https://docs.mulesoft.com/mule-runtime/4.3/choice-router-concept>

Round Robin: <https://docs.mulesoft.com/mule-runtime/4.3/round-robin>

First Successful: <https://docs.mulesoft.com/mule-runtime/4.3/first-successful>

179.Refer to the exhibit.



What is a valid expression for the Choice router's when expression to route events to the documenticShipping flow?

- A. 0#[payload = 'US']
- B. #[payload == 'US']
- C. #[if(payload = 'US')]
- D. #[if(payload == "US")]

Answer: B

Explanation:

Option 1 is the correct syntax

180.How we can scale deployed Mule application vertically on cloudbus?

- A. Changing worker size
- B. Adding multiple workers
- C. Mule applications can be scaled only horizontally
- D. Option 1 and 2 both can be used

Answer: A

Explanation:

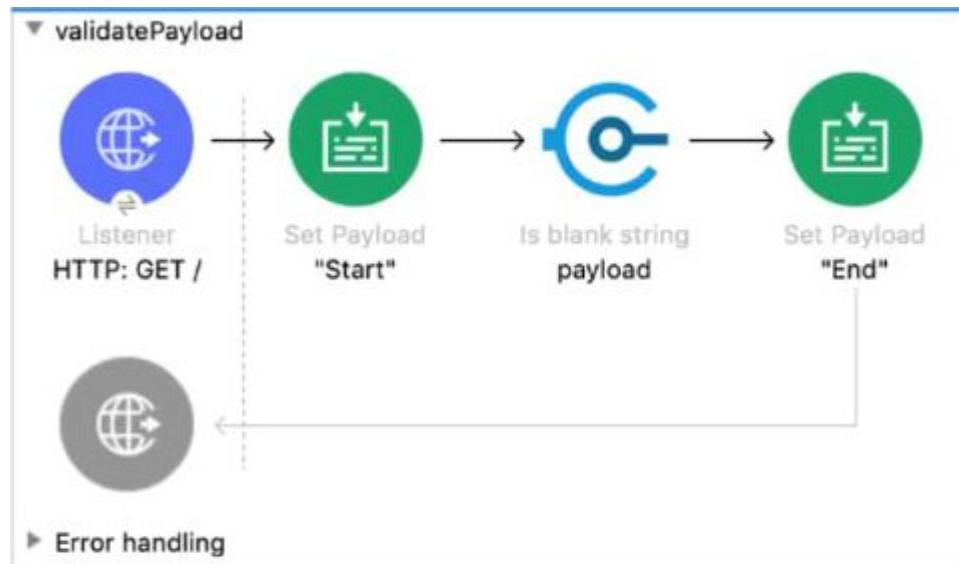
Mule applications can be scaled vertically by changing worker size. Mule applications can be scaled horizontally by adding more workers.

181.What execution model is used by For Each and Batch Job scopes?

- A. For Each is single-threaded and Batch Job is multi-threaded
- B. Both are single-threaded
- C. Both are multi-threaded
- D. Batch Job is single-threaded and For Each Is multi-threaded

Answer: A

182.Refer to the exhibits.



```
<flow name="validatePayload">
    <http:listener doc:name="HTTP: GET /" config-ref="HTTP_Listener_config" path="/" />
    <set-payload value="Start" doc:name="Start" />
    <validation:is-blank-string doc:name="payload" value="#{payload}" />
    <set-payload value="End" doc:name="End" />
</flow>
```

A web client sends a GET request to the HTTP Listener.

What response message is returned to the web client?

- A. ""

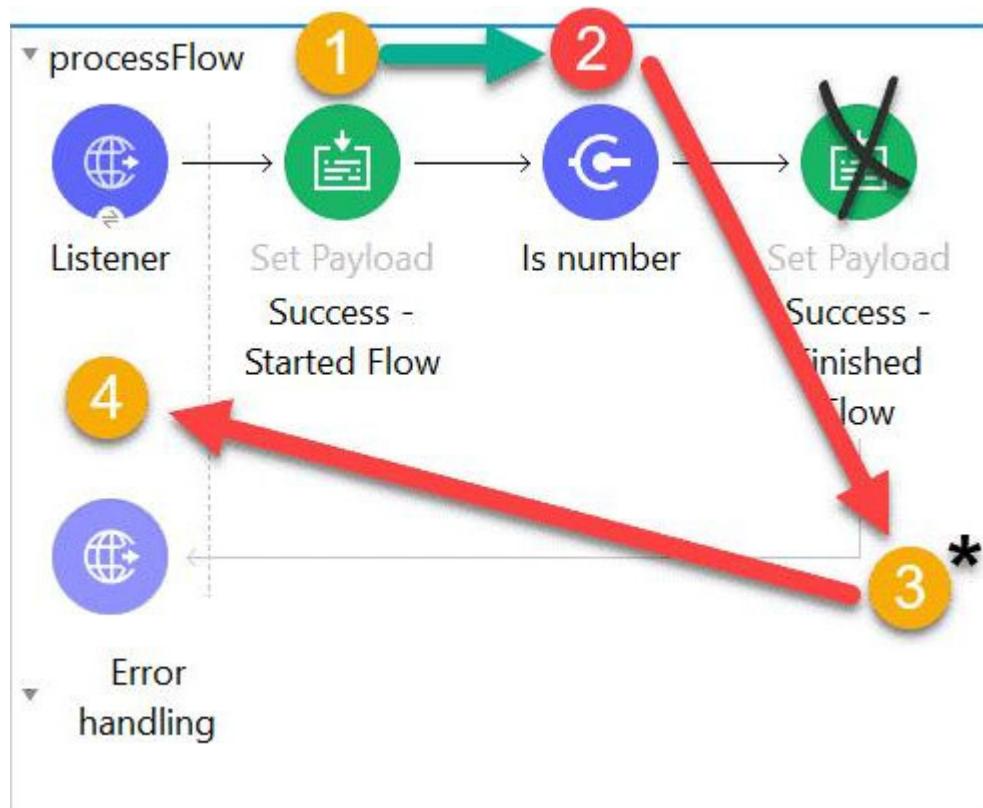
- B. "End"
- C. "Start"
- D. "String is not blank"

Answer: B

Explanation:

1. Set Payload "Start"
2. 'Is Blank String' Creates an Error object with #[error.description] = "String is not blank"
3. Default Error Handler catches and Propagates error
4. 'On Error Propagate' is 'RED IN RED OUT'. It Returns Status Code : 500 & #[error.description]

Correct answer is String is not blank. Because validation component will throw an error as payload is not blank.



A picture containing timeline
Description automatically generated
Bottom of Form
Top of Form

183.Refer to the exhibits.

Larger image

▼ httpListener1



Error
handling

▼ httpListener3333

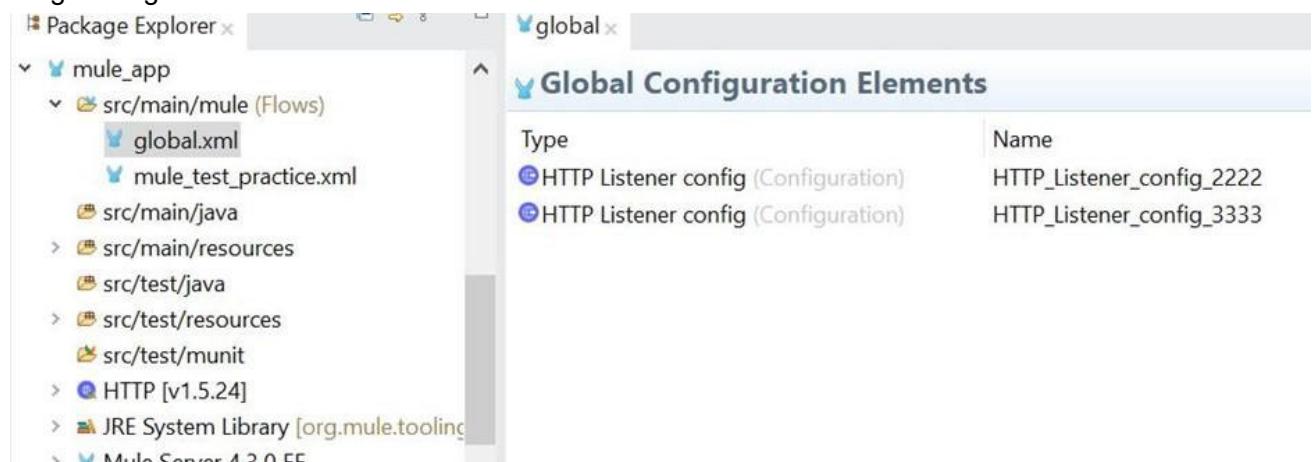


Error
handling

[Larger image](#)

```
http://www.mulesoft.org/schema/mule/http http://www.mulesoft.org/schema/mule/http/current/mule-http.xsd http://www.mulesoft.org/schema/mule/http/http-listener-config
<http:listener-config name="HTTP_Listener_config_2222"
    doc:name="HTTP Listener config"
    doc:id="c79e8446-0a5f-47f8-921f-b0af7fdd120c">
    <http:listener-connection host="0.0.0.0"
        port="2222"/>
</http:listener-config>
<http:listener-config name="HTTP_Listener_config_3333"
    doc:name="HTTP Listener config"
    doc:id="7270c604-9c86-464a-9962-6530e1168b01">
    <http:listener-connection host="0.0.0.0"
        port="3333"/>
</http:listener-config>
</mule>
```

[Larger image](#)



The Mule application configures and uses two HTTP Listener global configuration elements.

Mule application is run in Anypoint Studio.

If the mule application starts correctly, what URI and port numbers can receive web client requests?

If the mule applications fails to start, what is the reason for the failure?

A. The mule application fails to start

There is URL path conflict because both HTTP Listeners are configured with same path

B. The mule application start successfully

Web client requests can only be received at URI on port 2222 but not on port 3333

C. The mule application fails to start because of the port binding conflict as HTTP request also use same port i.e. 3333

D. The mule application start successfully

Web client requests can be received at URI on port 2222 and on port 3333.

Answer: D

Explanation:

In this case both the flows can start without any error and requests can be received on both ports. Flow names httpListener1 can call other flow using HTTP request without any issues.

184. Refer to the exhibit.



What is the correct syntax to add an employee ID as a URI parameter in an HTTP Listener path?

- A. (employeeID)
- B. \${emp!oyeID}
- C. {employeeID}
- D. # [employeeID]

Answer: C

Explanation:

While configuring HTTP listener path, URI parameters are always enclosed within curly braces. Hence option 2 is correct choice

185.What MuleSoft product enables publishing, sharing, and searching of APIs?

- A. Runtime Manager
- B. API Notebook
- C. API Designer
- D. Anypoint Exchange

Answer: D

Explanation:

Anypoint Exchange provided a way to publish, share and search API's.

MuleSoft Doc

Ref: <https://docs.mulesoft.com/exchange/>

186.According to Mulesoft, how are Modern APIs treated as?

- A. Products
- B. SOAP API's
- C. Rest API's
- D. Code

Answer: A

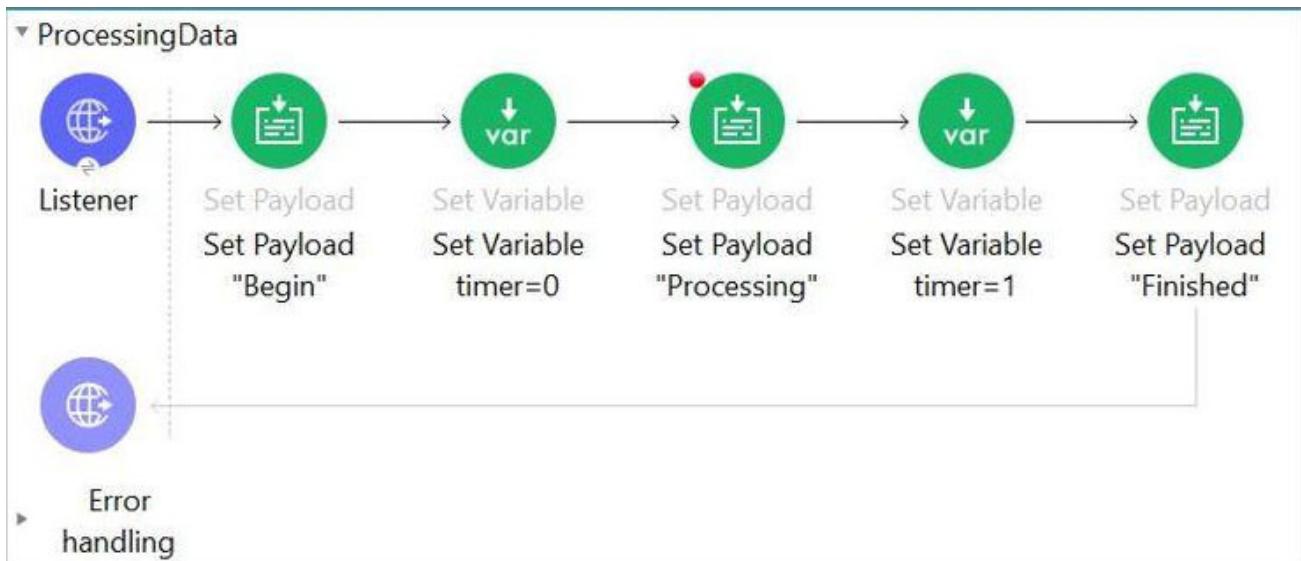
Explanation:

Correct answer is Products

Modern API has three features

- 1) Treated as products for easy consumption
- 2) Discoverable and accessible through self-service
- 3) Easily managed for security, scalability and performance

187.Refer to the exhibits.



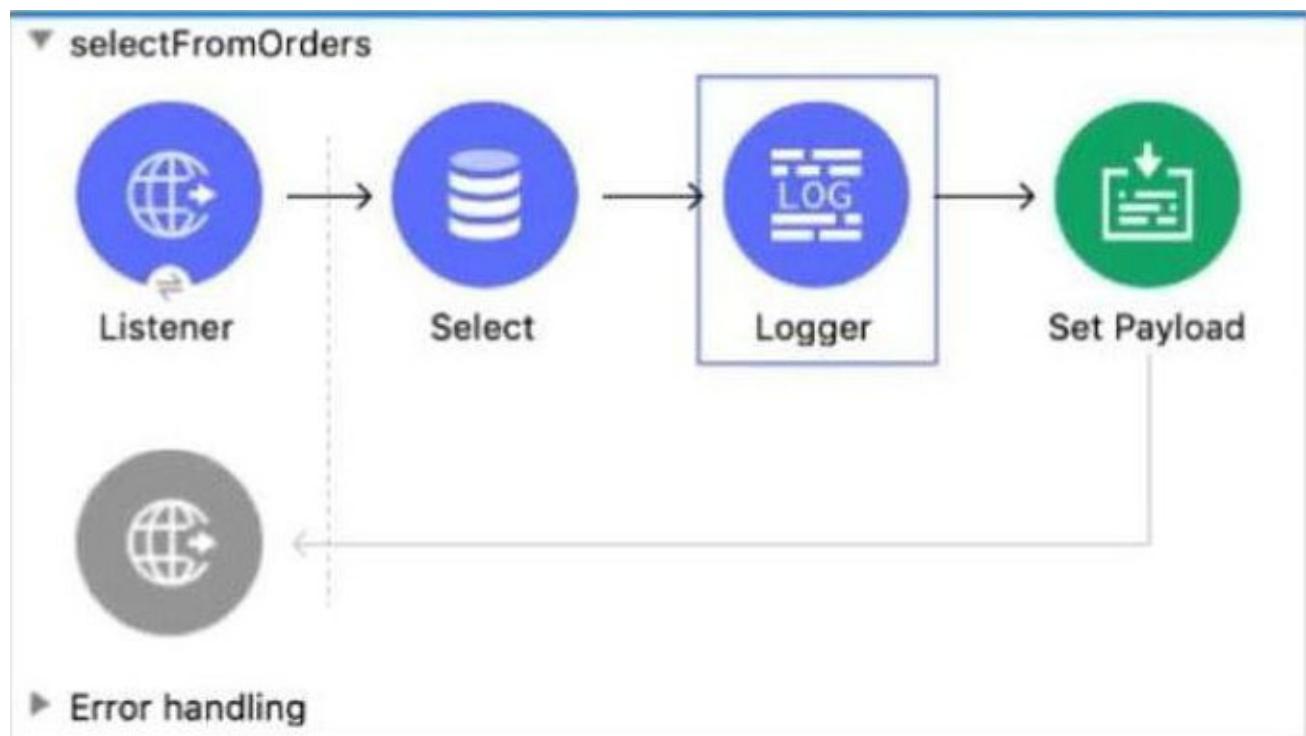
The Mule Application is being debugged in Anypoint Studio and stops at breakpoint.

What is the value of payload displayed in debugger at this breakpoint?

- A. Processing
- B. Begin
- C. Finished

Answer: B

188. Refer to the exhibit.



[Message Flow](#) [Global Elements](#) [Configuration XML](#)

Logger X Problems Console

There are no errors.

General	Display Name: <input type="text" value="Logger"/>
Metadata	Generic
Notes	
Help	Message: <input type="text" value="#{ typeOf(payload) }"/> Level: <input type="text" value="INFO (Default)"/> Category: <input type="text"/>

What is the output of logger component?

- A. String
- B. Object
- C. Array
- D. Map

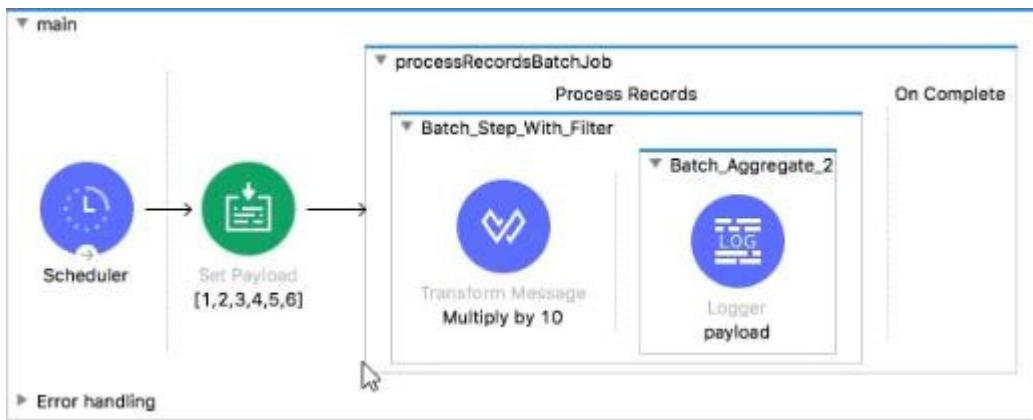
Answer: C

Explanation:

Database always return rows as an array.

Array is the correct answer

189.Refer to the exhibit.



```

<flow name="main" >
    <scheduler doc:name="Scheduler" > <scheduling-strategy >
        <fixed-frequency frequency="10000"/></scheduling-strategy> </scheduler>
        <set-payload value="#[[1,2,3,4,5,6]]" doc:name="[[1,2,3,4,5,6]]" />
        <batch:job jobName="processRecordsBatchJob" >
            <batch:process-records >
                <batch:step name="Batch_Step_With_Filter" acceptExpression="#[(payload mod 2) == 0]">
                    <ee:transform doc:name="Multiply by 10"><ee:message >
                        <ee:set-payload ><![CDATA[Xdw 2.0
                            output application/java
                            payload * 10]]></ee:set-payload>
                    </ee:message></ee:transform>
                    <batch:aggregator doc:name="Batch_Aggregate_2" size="2" >
                        <logger level="INFO" doc:name="payload" message="#[payload]" />
                    </batch:aggregator>
                </batch:step>
            </batch:process-records>
        </batch:job>
    </Flow>

```

The Batch Job processes, filters and aggregates records.

What is the expected output from the Logger component?

- A. [10. 20. 30. 40, 50, 60]
- B. [10. 20] [30, 40] [50, 60]
- C. [20, 40, 60]
- D. [20. 40] [60]

Answer: D

Explanation:

- * Batch scope has filter criteria which says payload mod 2 = 0 which means only 2, 4 and 6 will be in batch scope.
- * So payload for each of these will be incremented by 10.
- * Aggregator has batch size defined as 2. So it will process in batch of two records.
- * Hence option 3 is correct answer.

[20,40]

[60]

190. Where would you create SLA Tiers for an API?

- A. Exchange
- B. API Manager
- C. Anypoint Studio
- D. In RAML specifications

Answer: B

Explanation:

MuleSoft Doc

Ref: <https://docs.mulesoft.com/api-manager/2.x/policy-mule3-tutorial-manage-an-api#to-add-the-tier>

Steps to create SLA Tier are as follows:

- 1) In API Manager, in API Administration, click a version.
- 2) Check that the API supports resource-level policies: On the API version details page, in Status, click Configure Endpoint, and check that Type is RAML.
- 3) Choose the SLA Tiers, and click Add SLA Tier. Set up limit on SLA tier

191.Pick the component with which DataWeave is tightly integrated.

- A. All APIs
- B. Mule runtime
- C. Exchange
- D. Flow Designer

Answer: B

Explanation:

Correct answer is Mule runtime

DataWeave is the MuleSoft expression language for accessing and transforming data that travels through a Mule app. DataWeave is tightly integrated with the Mule runtime engine, which runs the scripts and expressions in your Mule app.

Mule Doc

Reference: <https://docs.mulesoft.com/mule-runtime/4.3/dataweave>

192.What happens to the attributes of a Mule event in a flow after an outbound HTTP Request is made?

- A. Attributes are replaced with new attributes from the HTTP Request response (which might be null)
- B. New attributes may be added from the HTTP response headers, but no headers are ever removed
- C. Attributes do not change
- D. Previous attributes are passed unchanged

Answer: A

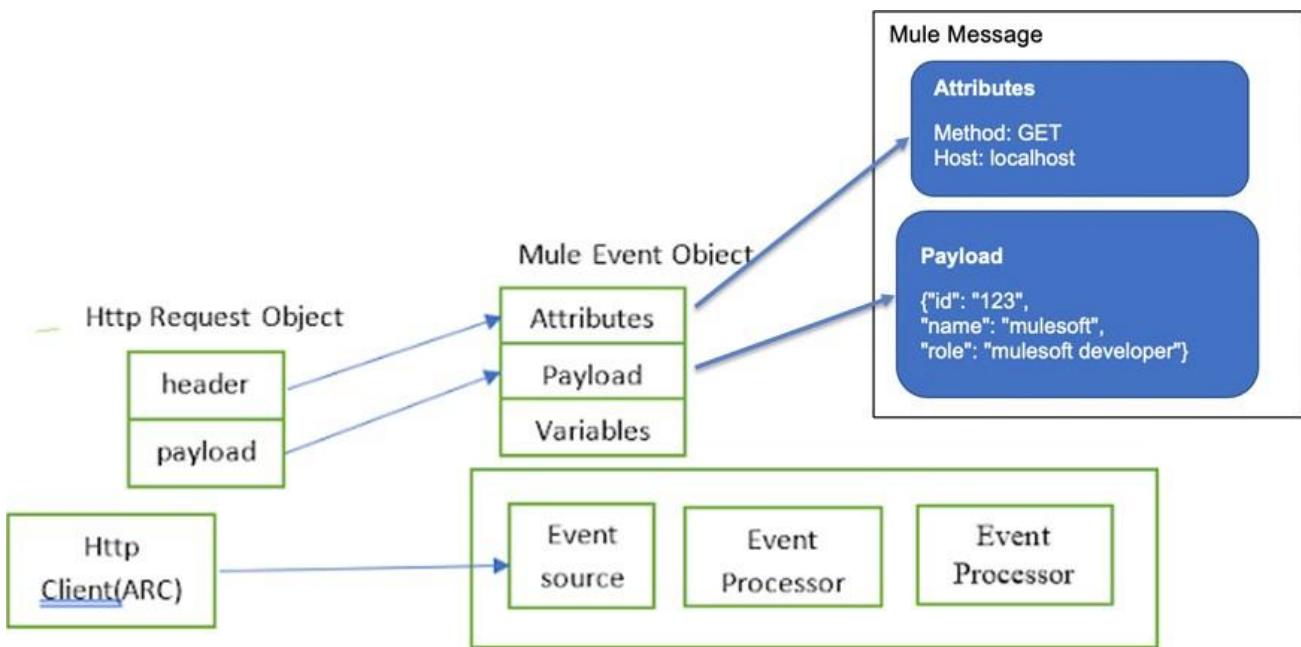
Explanation:

Attributes are replaced with new attributes from the HTTP Request response.

Attributes include everything apart from Payload/body. For ex: Headers, query parameters, URI parameters.

So, when outbound HTTP request is made, new attributes need to pass the outbound HTTP request and old attributes are replaced.

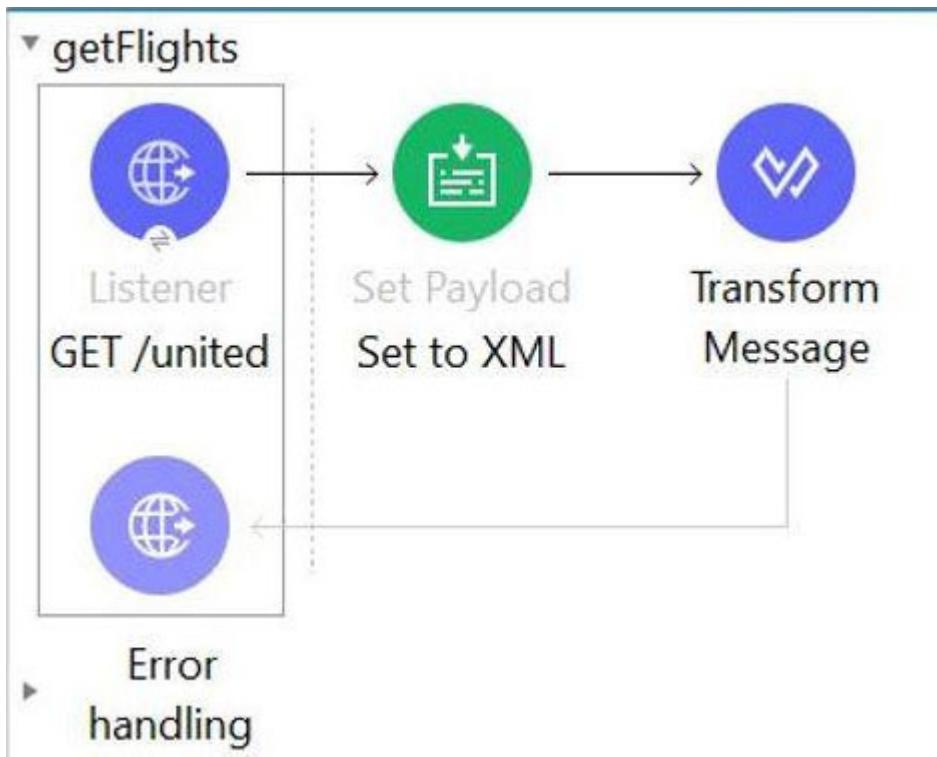
I have created below diagram to make it easy for you to understand:



Diagram

Description automatically generated

193. Refer to the exhibits.



Set to XML Problems

There are no errors.

General

MIME Type	Display Name: Set to XML
Metadata	Settings
Notes	Value: <input type="text" value="<Flight><ID>1</ID><Destination>SFO</Destination></Flight>"/>
Help	

```

<flow name="getFlights" doc:id="f89731e6-ea03-4d69-a66c-df99584e7c08" >
    <http:listener doc:name="GET /united" doc:id="f331134b-91f8-4c18-8b98-7d5a8ecd4c5b" config-ref=""
        <set-payload value="&lt;Flight&gt;&lt;ID&gt;1&lt;ID&gt;&lt;Destination&gt;SF0&lt;Destination&gt;
        <ee:transform doc:name="Transform Message" doc:id="3de3829e-843c-41cf-94fd-5b2ead45f9af" >
            <ee:message >
                <ee:set-payload ><![CDATA[%dw 2.0
output application/json
---
typeOf(payload)
]]><ee:set-payload>
            </ee:message>
        </ee:transform>
    </flow>

```

A web client submits a request to below flow.

What is the output at the end of the flow?

- A. String
- B. Object
- C. Java
- D. XML

Answer: A

Explanation:

String is the correct answer as XML is of an Object type String

194. Refer to the exhibit.

1 %dw 2.0	<?xml version='1.0' encoding='UTF-8'?>
2 output application/xml	<trains>
3 var conductorIds = [592, 921]	<train>
4 ---	<engineerId>592</engineerId>
5	</train>
6	<train>
7	<engineerId>921</engineerId>
8	</train>
9	</trains>
10	

What DataWeave expression transforms the conductorIds array to the XML output?

- A)

```
 {{  
   trains: conductorIds map ( (engId, index) ->  
     train: {  
       engineerId: engId  
     }  
   )  
 })  
B)  
trains:  
  conductorIds map ( (engId, index) ->  
    train: {  
      engineerId: engId  
    }  
  )  
C)  
trains:  
{  
  conductorIds map ( (engId, index) ->  
    train: {  
      engineerId: engId  
    }  
  )  
}  
D)  
{  
  trains: conductorIds map ( (engId, index) ->  
    train: {  
      engineerId: engId  
    }  
  )  
}
```

- A. Option A
- B. Option B
- C. Option C
- D. Option D

Answer: C

195.What is the output type of the DataWeave map operator?

- A. String
- B. Array
- C. Map
- D. Object

Answer: B

196.Refer to the exhibit.

```
#%RAML 1.0
title: ACME Airlines
version: 1.0

/flights:
  get:
    responses:
      200:
      404:

/airline:
  get:
    queryParameters:
      code: string
    responses:
      200:
      404:

/accounts:
  get:
    responses:
      200:
      404:
  post:
    responses:
      201:
```

How many private flows does APIKIT generate from the RAML specification?

- A. 1
- B. 2
- C. 3
- D. 4

Answer: D

197.How would you debug Mule applications?

- A. By Deploying apps on production
- B. Checking RAML specifications
- C. Using debugger component
- D. Use third party debugger application

Answer: C

Explanation:

Debugger can be used to debug applications to see event data moving from one flow to other

198.Refer to the exhibits.



► Error handling

```

<flow name="logPayload" >
    <scheduler doc:name="Scheduler" >
        <scheduling-strategy >
            <fixed-frequency />
        </scheduling-strategy>
    </scheduler>
    <set-payload value="#[{"year": "2020"}]" doc:name="{"year": "2020"}" />
    <logger level="INFO" doc:name="Logger" message="????? />
</flow>

```

The Set Payload transformer's value is set to {'year': '2020'}.

What message value should be added to the Logger component to output the message 'The year is 2020', without hardcoding 2020?

- A. '#[The year is \$(payload.year)]*
- B. The year is #[payload.year]
- C. '#[The year is " + payload.year]"
- D. #["The year is "+ payload.year].

Answer: D

199.Which Mule component provides a real-time, graphical representation of the APIs and mule applications that are running and discoverable?

- A. API Notebook
- B. Runtime Manager
- C. Anypoint Visualizer
- D. API Manager

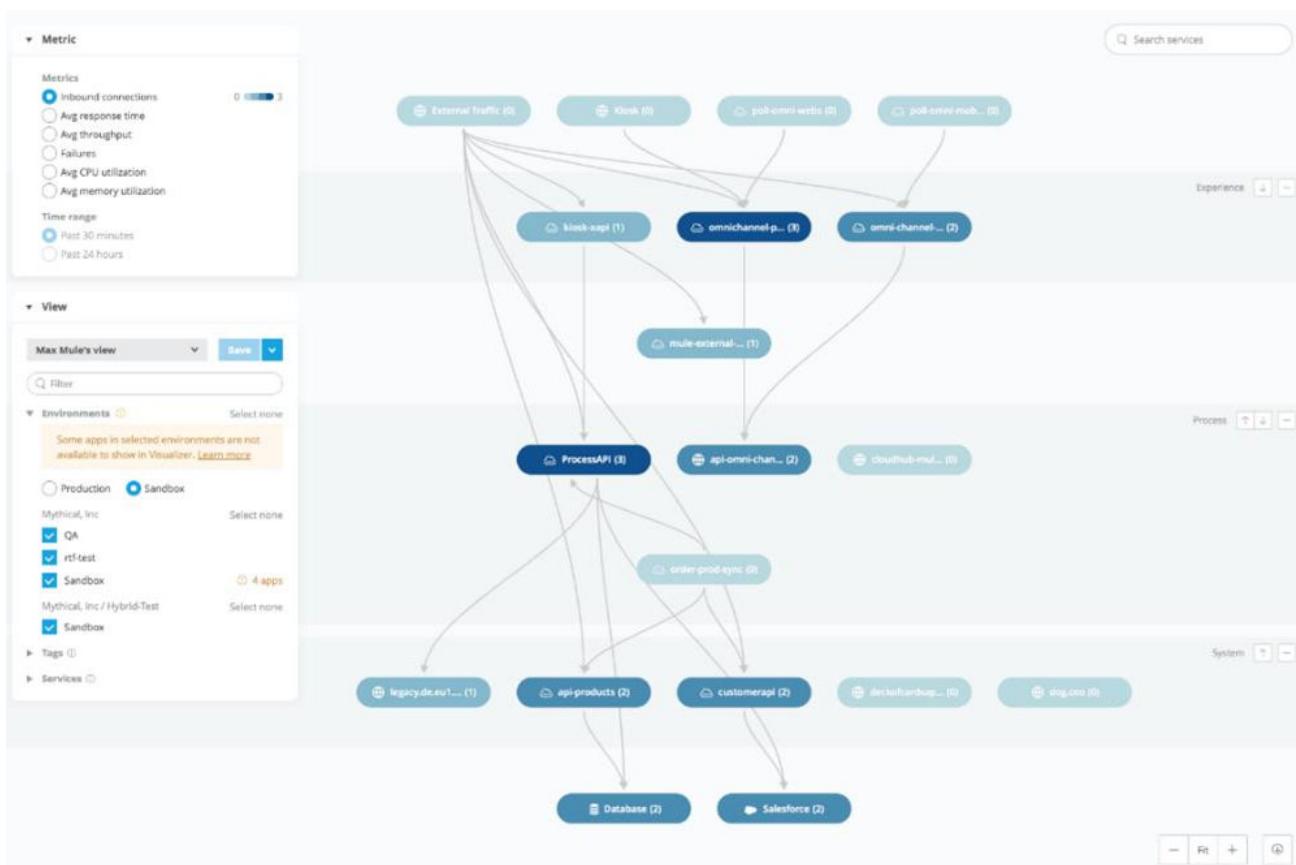
Answer: C

Explanation:

Correct answer is Anypoint Visualizer

MuleSoft Doc Ref: <https://docs.mulesoft.com/visualizer/>

Anypoint Visualizer provides a real-time, graphical representation of the APIs, and Mule applications that are running and discoverable. It also displays third-party systems that are invoked by a Mule API, proxy, or application within your application network. The data displayed in the graph is dynamically updated and does not require prior configuration. Additionally, the data displayed is secure, as only users with the proper permissions can view the application network graph.



Diagram

Description automatically generated

200.A Mule application contains two HTTP Listeners, each configured for different API endpoints:
<http://acme.com/apis/orders> and <http://acme.com/apis/customers>.

What base path value should be set in an `HTTP Listener config` element so that it can be used to configure both HTTP Listeners?

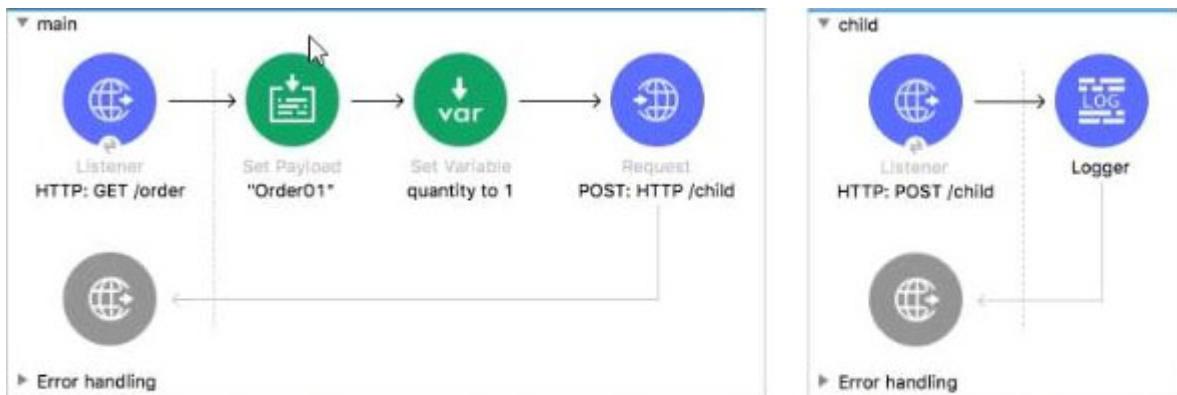
- A. `/apis/?`
- B. `/apis/`
- C. `/apis/orders|customers`
- D. `/apis/*`

Answer: D

Explanation:

Option 2 is the correct answer as `/api/*` accepts everything starting with `/api/`

201.Refer to the exhibits.



```

<http:request method="POST" doc:name="POST: HTTP /child" url="http://localhost:8081/child"></http:request>
</flow>

<flow name="child" >
    <http:listener doc:name="HTTP: POST /child" config-ref="HTTP_Listener_config" path="/child"/>

```

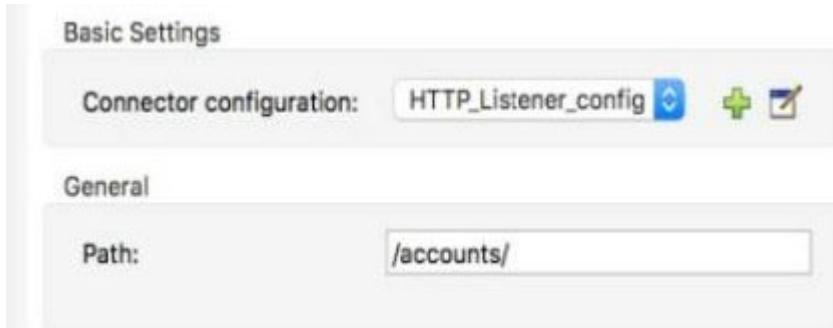
The main flow contains an HTTP Request. The HTTP Listeners and HTTP Request use default configurations.

What values are accessible in the child flow after a web client submits a request to <http://localhost:8081/order>? col or = red?

- A. payload
- B. payload
- quantity var
- C. payload
- color query param
- D. payload
- quantity var color query param

Answer: A

202. Refer to the exhibit.

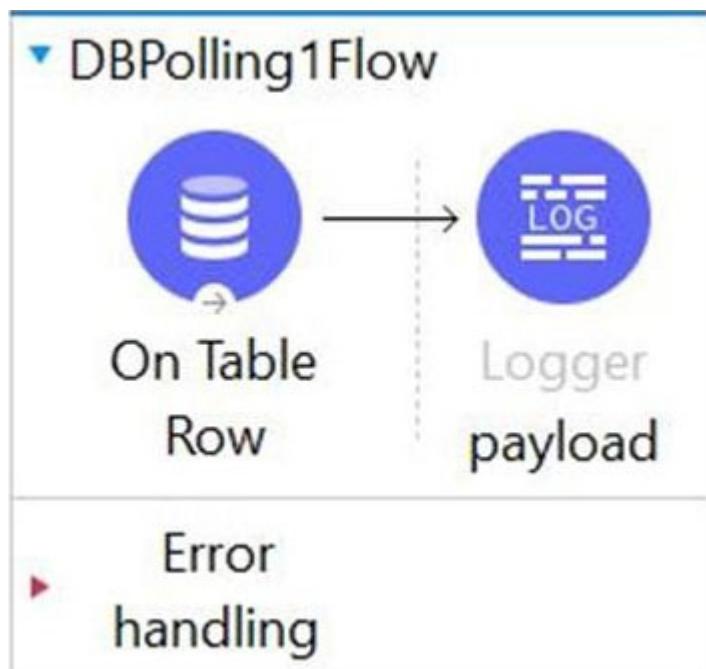


What is the correct syntax to add a customer ID as a URI parameter in an HTTP Listener's path attribute?

- A. (customerID)
- B. {customerID}
- C. #[customerID]
- D. \${customerID}

Answer: B

203.Refer to the exhibits.



```
ERROR 2021-07-04 09:30:38,737 [[MuleRuntime].uber.11: [mule_app].uber@org.mule.runtime.module.extension.internal.runtime.source.ExtensionMessageSource.lam
org.mule.runtime.api.connection.ConnectionException: Could not obtain connection from data source
Caused by: org.mule.extension.db.api.exception.ConnectionCreationException: Could not obtain connection from data source
Caused by: org.mule.runtime.extension.api.exception.ModuleException: java.sql.SQLException: Error trying to load driver: com.mysql.jdbc.Driver : Cannot lo
Class 'com.mysql.jdbc.Driver' has no package mapping for region 'domain/default/app/mule_app'..
Cannot load class 'com.mysql.jdbc.Driver': [
Class 'com.mysql.jdbc.Driver' has no package mapping for region '/domain/default'..
Class 'com.mysql.jdbc.Driver' not found in classloader for artifact 'containerer'..]
Caused by: java.sql.SQLException: Error trying to load driver: com.mysql.jdbc.Driver : Cannot load class 'com.mysql.jdbc.Driver': [
Class 'com.mysql.jdbc.Driver' has no package mapping for region 'domain/default/app/mule_app'..
Cannot load class 'com.mysql.jdbc.Driver': [
Class 'com.mysql.jdbc.Driver' has no package mapping for region '/domain/default'..
Class 'com.mysql.jdbc.Driver' not found in classloader for artifact 'containerer'..]
at org.mule.extension.db.internal.domain.connection.JdbcConnectionFactory.createConnection(JdbcConnectionFactory.java:57) ~[mule-db-connector-1.9.
at org.mule.extension.db.internal.domain.connection.DbConnectionProvider.connect(DbConnectionProvider.java:139) ~[mule-db-connector-1.9.3-mule-plu
at org.mule.extension.db.internal.domain.connection.DbConnectionProvider.connect(DbConnectionProvider.java:71) ~[mule-db-connector-1.9.3-mule-plug
at org.mule.runtime.module.extension.internal.runtime.config.ClassLoaderConnectionProviderWrapper.connect(ClassLoaderConnectionProviderWrapper.jav
at org.mule.runtime.core.internal.connection.ConnectionUtils.connect(ConnectionUtils.java:49) ~[?:?]
at org.mule.runtime.core.internal.connection.AbstractConnectionProviderWrapper.connect(AbstractConnectionProviderWrapper.java:64) ~[?:?]
at org.mule.runtime.core.internal.connection.ErrorTypeHandlerConnectionProviderWrapper.connect(ErrorTypeHandlerConnectionProviderWrapper.java:64)
at org.mule.runtime.core.internal.connection.ConnectionUtils.connect(ConnectionUtils.java:49) ~[?:?]
at org.mule.runtime.core.internal.connection.AbstractConnectionProviderWrapper.connect(AbstractConnectionProviderWrapper.java:64) ~[?:?]
at org.mule.runtime.core.internal.connection.DefaultConnectionProviderWrapper.connect(DefaultConnectionProviderWrapper.java:52) ~[?:?]
```

As a mulesoft developer, what you would change in Database connector configuration to resolve this error?

- A. Configure the correct host URL
- B. Configure the correct database name
- C. Configure the correct table name
- D. Configure the correct JDBC driver

Answer: D

Explanation:

Correct answer is Configure the correct JDBC driver as error message suggests the same

Caused by: java.sql.SQLException: Error trying to load driver: com.mysql.jdbc.Driver :
 Cannot load class 'com.mysql.jdbc.Driver': [
 Class 'com.mysql.jdbc.Driver' has no package mapping for region 'domain/default/app/mule_app'..
 Cannot load class 'com.mysql.jdbc.Driver': [

204.What is the trait name you would use for specifying client credentials in RAML?

- A. headers

- B. client-id
- C. client-id-required
- D. cannot be specified in RAML

Answer: C

Explanation:

client-id-required enforces clients to add client_id and client_secret.

Please refer to below steps.

- ☞ Add a section called traits: at the root level to define query parameters: ☞ *traits:
- ☞ - client-id-required: ☞ queryParameters: ☞ client_id:
 - ☞ type: string
 - ☞ client_secret: ☞ type: string
- ☞ 2) Reference the trait in each of the methods to specify that each of the methods require these query parameters. After each method in the RAML file, add is: [client-id-required]. For example:
 - ☞ /users: ☞ get:
 - ☞ is: [client-id-required]
 - ☞ description: Gets a list of JSONPlaceholder users.

205.Following Mulesoft's recommended API-led connectivity approach, an organization has created an application network. The organization now needs to create API's to transform, orchestrate and aggregate the data provided by the other API's in the application network. This API should be flexible enough to handle the data from additional API's in future.

According to Mulesoft's recommended API-led connectivity approach, what is the best layer for this new API?

- A. Process layer
- B. System layer
- C. Experience layer
- D. Data layer

Answer: A

Explanation:

Correct answer is process layer as all the orchestration and transformation logic should be in process layer as per Mulesoft's recommended approach for API led connectivity.

206.Refer to the exhibit.

```

%%RAML 1.0
title: ACME Telecom API
version: 1.0

/plans:
  get:
    responses:
      200:
        body:
          application/json:
            example: |
              [
                {
                  "plan_type": "Super Saver 500",
                  "plan_details": "all-inclusive",
                  "monthly_discount": 0.10
                },
                {
                  "plan_type": "Business Plus 1000",
                  "plan_details": "business package",
                  "monthly_discount": 0.20
                }
              ]

```

The API needs to be updated using the company-wide standard for the Plan data type. The Object data type has already been published in Anypoint Exchange with the global reference.

ACME/DataTypes/PlanDataType.raml.

What is a valid RAML specification that reuses the Plan data type?

A)

```

%%RAML 1.0
title: ACME Telecom API
version: 1.0

dataTypes:
  Plan: !include ACME/DataTypes/PlanDataType.raml

/plans:
  get:
    responses:
      200:
        body:
          application/json:
            type: Plan[]
            example: !include ACME/Examples/PlanExamples.raml

```

B)

```

%%RAML 1.0
title: ACME Telecom API
version: 1.0

dataTypes:
  Plan: !reference ACME/DataTypes/PlanDataType.raml

/plans:
  get:
    responses:
      200:
        body:
          application/json:
            type: Plan[]
            example: !reference ACME/Examples/PlanExamples.raml

```

C)

```
#{%RAML 1.0
title: ACME Telecom API
version: 1.0

types:
  Plan: !reference ACME/DataTypes/PlanDataType.raml

/plans:
  get:
    responses:
      200:
        body:
          application/json:
            type: Plan[]
            example: !reference ACME/Examples/PlanExamples.raml
```

D)

```
#{%RAML 1.0
title: ACME Telecom API
version: 1.0

types:
  Plan: !include ACME/DataTypes/PlanDataType.raml

/plans:
  get:
    responses:
      200:
        body:
          application/json:
            type: Plan[]
            example: !include ACME/Examples/PlanExamples.raml
```

- A. Option A
- B. Option B
- C. Option C
- D. Option D

Answer: D

Explanation:

As can be seen in RAML, POST expects input in application/json format which eliminates two of the options as two options are in xml format.

Now out of the two remaining options, one has id field in request which is only mentioned for get response and not for POST request. Hence id field is not expected in POST request.

Hence correct answer is

```
{  
  "name": "GoerdiLa Forge",  
  "address": "1 Westland CA",  
  "customer_since": "2014-01-04",  
  "balance": "4829.29",  
  "bank_agend_id": "12556"  
}
```

207. Where is metadata stored in a Mule project

- A. Config.yaml file
- B. POM.xml file

C. application-types.xml

D. Global Element

Answer: C

Explanation:

Metadata is stored in application-types.xml file located under src/main/resources.

Mule 4 applications contain an application-types.xml file, which is where metadata around your data types is stored. For example, if you create a new CSV type, that metadata will be added to this file. This new file is easy to share, commit, and merge when conflicts arise, which enables you to do more metadata-driven development.

MuleSoft Doc

Ref: <https://docs.mulesoft.com/mule-runtime/4.3/intro-studio#metadata-storage>

208. Refer to the exhibits.

Input payload:

```
[{"size": "large", "amount": 1000, "price": 400.00}, {"size": "medium", "amount": 400, "price": 600.00}, {"size": "small", "amount": 1, "price": 800.00}]
```

▼ Batch_job



```
<batch:job jobName="Batch_job" maxFailedRecords="-1">
    <batch:process-records>
        <batch:step name="lessThan500" acceptExpression="#{payload.amount < 500}" acceptPolicy="ALL">
            <set-payload value='#{'amount': payload.amount + 100}' doc:name='{'amount': payload.amount + 100}' />
            <logger level="INFO" doc:name="payload" message='#[payload]' />
        </batch:step>
        <batch:step name="greaterThan200" acceptExpression="#{ payload.amount > 200 }" acceptPolicy="ALL">
            <set-payload value='#{step2amount: payload.amount}' doc:name='{'step2amount': payload.amount}' />
            <logger level="INFO" doc:name="payload" message='#[payload]' />
        </batch:step>
    </batch:process-records>
</batch:job>
```

The Batch Job scope contains two Batch Step scopes with different accept expressions.

The input payload is passed to the Batch Job scope.

After the entire payload is processed by the Batch Job scope, what messages have been logged by the Logger components?

A)

```
{ "amount": 500 }
{ "amount": 101 }
{ "step2amount": 1000 }
```

B)

```
{ "amount": 500 }
{ "amount": 601 }
{ "step2amount": 1000 }
{ "step2amount": 500 }
{ "step2amount": 601 }
```

C)

```
{ "amount": 500 }
{ "amount": 101 }
{ "step2amount": 1000 }
{ "step2amount": 500 }
```

D)

```
{ "amount": 500 }
{ "amount": 101 }
{ "step2amount": 1000 }
{ "step2amount": 400 }
```

- A. Option A
- B. Option B
- C. Option C
- D. Option D

Answer: C

209. Refer to the exhibit.

```
#%RAML 1.0
title: ACME Insurance API
```

```
/users:
  post:
    headers:
      username: string
      password: string
    body:
      application/json:
```

What is the correct way to create a user?

A)



B)

Method Request URL
POST -> http://localhost:8081/api/users

Parameters ^

Headers	Authorization	Body	Variables	Actions
<input type="checkbox"/> <> Toggle source mode	+ Insert headers set			
Header name Content-Type	Header value application/json			x edit ?
Header name username	Header value max			x
Header name password	Header value mule			x
ADD HEADER				

C)

Method Request URL
POST -> http://localhost:8081/api/users?username=max&password=mule

Parameters ^

Headers	Authorization	Body	Variables	Actions
<input type="checkbox"/> <> Toggle source mode	+ Insert headers set			
Header name Content-Type	Header value application/json			x edit ?
ADD HEADER				

Headers size: 30 bytes

D)

Method Request URL
POST -> http://localhost:8081/api/users?username=headers&password=headers

Parameters ^

Headers	Authorization	Body	Variables	Actions
<input type="checkbox"/> <> Toggle source mode	+ Insert headers set			
Header name Content-Type	Header value application/json			x edit ?
Header name username	Header value username:max			x
Header name password	Header value password:mule			x
ADD HEADER				

A. Option A

B. Option B

C. Option C

D. Option D

Answer: B

210.A flow needs to combine and return data from two different data sources. It contains a Database SELECT operation followed by an HTTP Request operation.

What is the method to capture both payloads so the payload from the second request does not overwrite that from the first?

- A. Put the Database SELECT operation inside a Cache scope
- B. Put the Database SELECT operation inside a Message Enricher scope
- C. Nothing, previous payloads are combined into the next payload
- D. Save the payload from the Database SELECT operation to a variable

Answer: D

Explanation:

Correct answer is Save the payload from the Database SELECT operation to a variable Response from HTTP request will override the payload and hence response of database SELECT can be lost. Best way to preserve is to assign payload of first operation to variable using TransformMessage.

211.A Mule application configured with Autodiscovery implements an API.

Where is governance enforced for policies defined for this Mule application?

- A. In Runtime Manager
- B. Runtime Manager
- C. In the Mule application
- D. In API manager

Answer: D

Explanation:

Correct answer is API manager

212.What of the below is not a feature of API Notebooks?

- A. API documentation
- B. Creates a client for an API
- C. Creates a mock service for an API
- D. Perform authenticated live calls on a real server

Answer: C

Explanation:

Correct answer is Creates a mock service for an API

API Notebook is an open source, shareable web application for API documentation, interactive API tutorial and example generation, and a client for your API endpoints. Using API Notebook, you can make requests and quickly transform the responses into readable format. However it cannot be used to mock service for an API.

MuleSoft Doc

Ref: <https://docs.mulesoft.com/api-manager/1.x/api-notebook-concept>

213.A Mule application contains an ActiveMQ JMS dependency. The Mule application was developed in

Anypoint Studio and runs successfully in Anypoint Studio.

The Mule application must now be exported from Anypoint Studio and shared with another developer.

What export options create the smallest JAR file that can be imported into the other developer's Anypoint Studio and run successfully?

- A. Attach project sources
 Include project modules and dependencies
- B. Attach project sources
 Include project modules and dependencies
- C. Attach project sources
 Include project modules and dependencies
- D. Attach project sources
 Include project modules and dependencies

- A. Option A
B. Option B
C. Option C
D. Option D

Answer: D

214.A web client submits a request to <http://localhost:8081/books/0471767840>. The value "0471767840" is captured by a Set Variable transformer to a variable named bookISBN.

What is the DataWeave expression to access bookISBN later in the flow?

- A. bookISBN
B. attributes.bookISBN
C. flowVars.bookISBN
D. vars. bookISBN

Answer: D

215.What statement is a part of MuleSoft's description of an application network?

- A. Creates and manages high availability and fault tolerant services and infrastructure
B. Creates reusable APIs and assets designed to be consumed by other business units
C. Creates and manages a collection of JMS messaging services and infrastructure
D. Leverages Central IT to deliver complete point-to-point solutions with master data management

Answer: B

Explanation:

Creates reusable APIs and assets designed to be consumed by other business units

216.Refer to the exhibits.



```

<flow name="processItems" >
    <http:listener doc:name="HTTP: POST /items" config-ref="HTTP_Listener_config" path="/items"/>
    <set-payload value="#{}" doc:name="Extract items array" />
    <validation:is-not-empty-collection doc:name="Is not empty collection" message="Payload is an empty collection []"/>
    <db:insert doc:name="ORDERS" config-ref="Database_Config">
        <db:sql><![CDATA[INSERT INTO accounts]]></db:sql>
    </db:insert>
</flow>
<flow name="updateCustomerRecord" >
    <http:listener doc:name="HTTP: PATCH /email" config-ref="HTTP_Listener_config" path="/email"/>
    <set-payload value="#{}" doc:name="Extract email" />
    <validation:is-email doc:name="Is email" email="#{payload}" message="Not an email"/>
    <db:update doc:name="CUSTOMERS DB" config-ref="Database_Config">
        <db:sql><![CDATA[UPDATE accounts]]></db:sql>
    </db:update>
</flow>
<error-handler name="global-error-handler" >
    <on-error-continue enableNotifications="true" logException="true" doc:name="On Error Continue" type="VALIDATION:EMPTY_COLLECTION">
        <set-payload value="#{"Payload is an empty collection"}" doc:name="Set Payload" />
    </on-error-continue>
    <on-error-continue enableNotifications="true" logException="true" doc:name="On Error Continue" type="VALIDATION:INVALID_EMAIL">
        <set-payload value="#{"Payload is not a valid email"}" doc:name="Set Payload" />
    </on-error-continue>
    <on-error-propagate enableNotifications="true" logException="true" doc:name="On Error Propagate" >
        <set-payload value="#{payload}" doc:name="Set Payload" />
    </on-error-propagate>
</error-handler>

```

The my-app xml file contains an Error Handler scope named "global-error-handler"

The Error Handler scope needs to be set to be the default error handler for every flow in the Mule application

Where and how should the value "global-error-handler" be added in the Mule project so that the Error Handler scope is the default error handler of the Mule application?

- A. In the mule-artifact.json file, as the value of a key-value pair
- B. In the Validation folder as the value of a global element in the error-handling.yaml file
- C. In the pom.xml file, as the value of a global element
- D. In the my-app.xml file, as an attribute of a configuration element

Answer: D

217. Refer to the exhibit.

The screenshot shows a software interface with two main panes. On the left, there is a code editor window titled "list_json_1.json" containing the following JSON data:

```
[
  {
    "orderID": 592,
    "shipping": "international",
    "item": "T-shirt Navy",
    "size": "L",
    "quantity": 1,
    "price": 20
  },
  {
    "orderID": 972,
    "shipping": "domestic",
    "item": "Cargo Shorts",
    "size": "XL",
    "quantity": 2,
    "price": 30
  }
]
```

On the right, there is a "Output Payload" pane showing the transformed XML output:

```
<?xml version='1.0' encoding='UTF-8'?>
<order>
  <item>
    <itemName>T-shirt Navy</itemName>
    <total>20</total>
  </item>
  <item>
    <itemName>Cargo Shorts</itemName>
    <total>60</total>
  </item>
</order>
```

What Database expression transforms the input to the output?

A)

```
{
  payload map ( (value, index) ->
    order: {
      item: {
        itemName: value.item,
        total: value.price * value.quantity
      }
    }
  )
}
```

B)

```
order:
  payload map ( (value, index) ->
    item: {
      itemName: value.item,
      total: value.price * value.quantity
    }
  )
}
```

C)

```
payload map ( (value, index) ->
  order: {
    item: {
      itemName: value.item,
      total: value.price * value.quantity
    }
  }
)
```

D)

```
order:  
{  
    payload map ( (value,index) ->  
        item: {  
            itemName: value.item,  
            total: value.price * value.quantity  
        }  
    )  
}  
}  
}
```

- A. Option A
- B. Option B
- C. Option C
- D. Option D

Answer: D

Explanation:

This kind of questions are best solved with filtering technique. Key thing to note here is XML attributes are always access by @ notation. So in this example orderId can be accessed as @OrderId which makes option 3 and option 4 false. Now difference in option 1 and option 2 is in mapping of lineItemPrice. Correct syntax to format a String in Number is value.price as Number. Hence option 2 is correct

218.Which file is used to define the interface contract to invoke a web service implemented as a SOAP service

- A. RAML
- B. WSDL
- C. JSON
- D. OAS

Answer: B

Explanation:

WSDL is used to define the contract in case of SOAP . RAML/OAS is used to REST services

219.An organization is beginning to follow Mulesoft's recommended API led connectivity approach to use modern API to support the development and lifecycle of the integration solutions and to close the IT delivery gap.

What distinguishes between how modern API's are organized in a MuleSoft recommended API-led connectivity approach as compared to other common enterprise integration solutions?

- A. The API interfaces are specified as macroservices with one API representing all the business logic of an existing and proven end to end solution
- B. The API interfaces are specified at a granularity intended for developers to consume specific aspect of integration processes
- C. The API implementation are built with standards using common lifecycle and centralized configuration management tools
- D. The API implementations are monitored with common tools, centralized monitoring and security systems

Answer: B

Explanation:

Correct answer is The API interfaces are specified at a granularity intended for developers to consume

specific aspect of integration processes

220. Refer to the exhibits.

config.yaml

```
db:
  host: "mudb.learn.mulesoft.com"
  username: "mule"
  password: "mule"
```

What is valid text to set the field in the Database connector configuration to the username value specified in the config.yaml file?

- A. \${db.username}>
- B. #[db.username]
- C. #[db:username]
- D. \${db:username}>

Answer: A

Explanation:

option 3 is the correct syntax to access application properties

221. What is the correct way to format the decimal 200.1234 as a string to two decimal places?

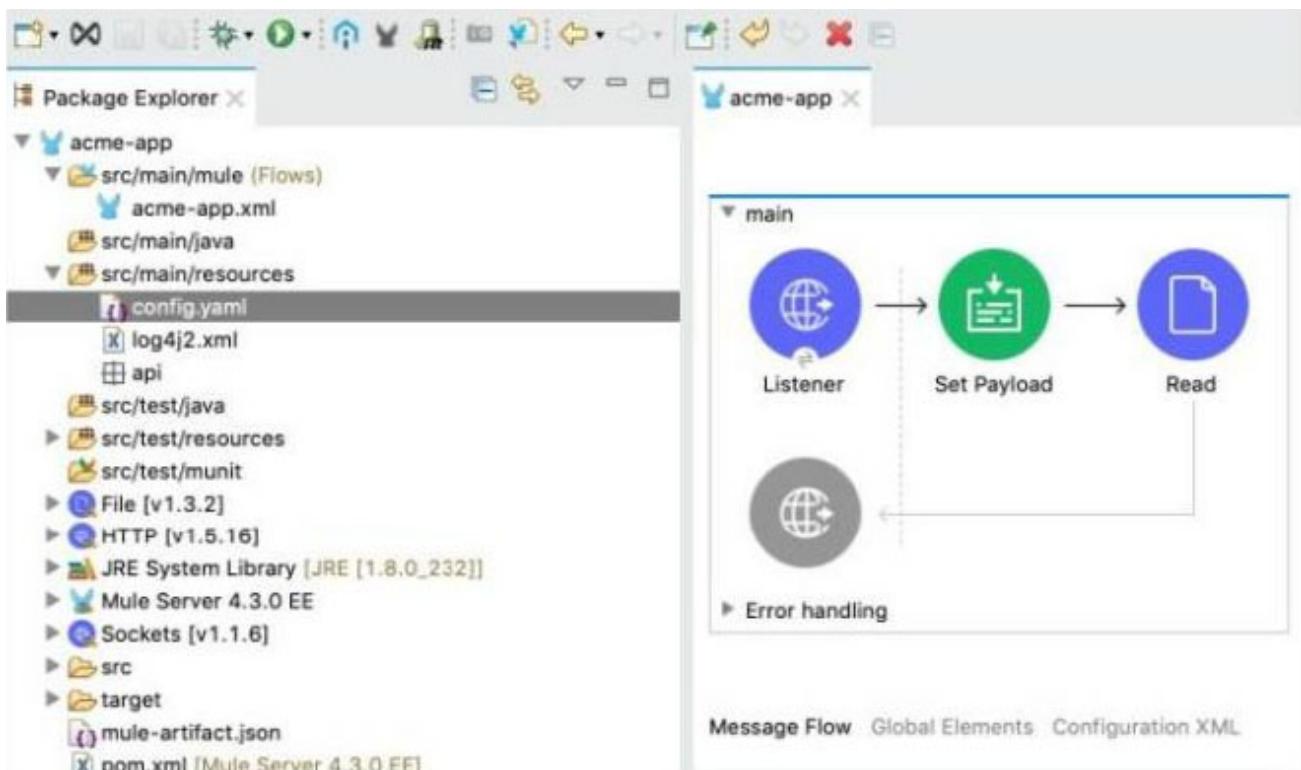
- A. 200.1234 as string as format: ".0#"
- B. 200.1234 as String {format: ".0#"}
- C. 200.1234 as String as format: ".0#"
- D. 200.1234 as string {format: ".0#"}

Answer: B

Explanation:

Correct answer is 200.1234 as String {format: ".0#"}. Rest all options are not syntactically correct.

222. Refer to the exhibit.



The Mule application's connectors are configured with property placeholders whose values are set in the config.yaml file

What must be added to the Mule application to link the config.yaml file's values with the property placeholders?

- A. A configuration-properties element in the acme-app xml file
- B. A dependency element in the pom xml file
- C. A file-config element in the acme-app xml file
- D. A propertiesFile key/value pair in the mule-artifact json file

Answer: A

223.A web client submits a request to <http://localhost:8081?accountType=personal>. The query parameter is captured using a Set Variable transformer to a variable named accountType.

What is the correct DataWeave expression to log accountType?

- A. Account Type: #[flowVars.accountType]
- B. Account Type: #[message.inboundProperties.accountType]
- C. Account Type: # [attributes.accountType]
- D. Account Type: #[vars.accountType]

Answer: D

Explanation:

vars: Keyword for accessing a variable, for example, through a DataWeave expression in a Mule component, such as the Logger, or from an Input or Output parameter of an operation. If the name of your variable is myVar, you can access it like this: vars.myVar Hence correct answer is Account Type: #[vars.accountType]

224.Where are values of query parameters stored in the Mule event by the HTTP Listener?

A. Inbound Properties

B. Variables

C. Attributes

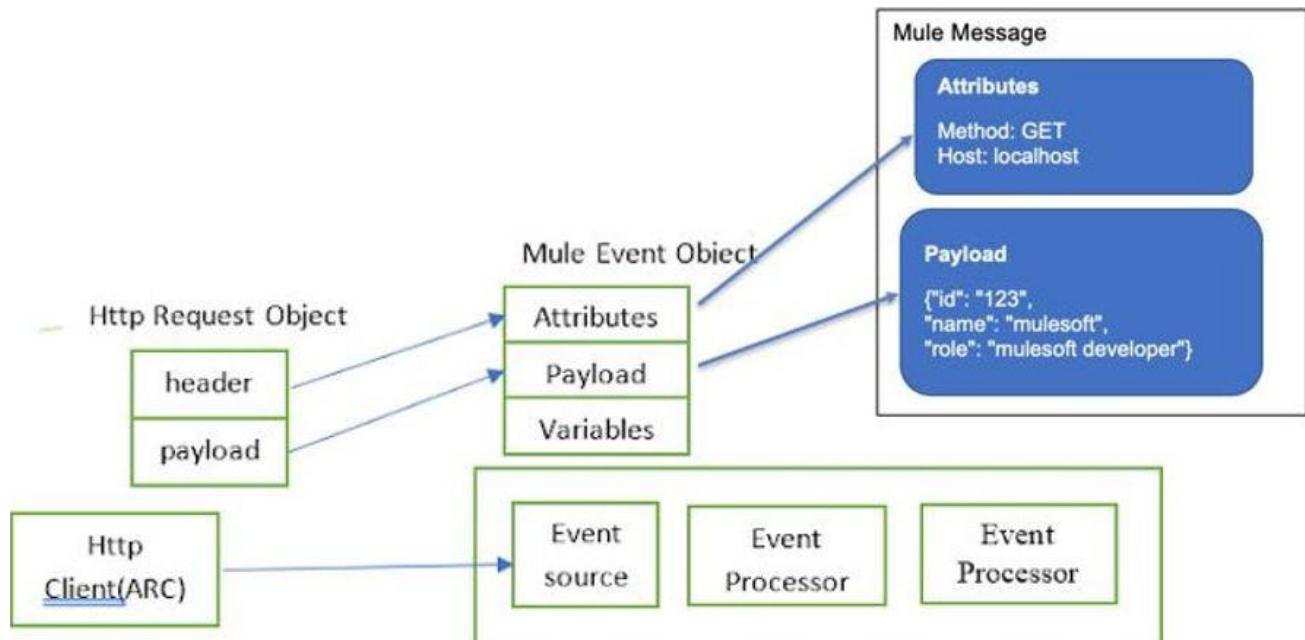
D. Payload

Answer: C

Explanation:

Correct answer is Attributes.

Query parameters, URI parameters and headers are some of examples which are part of attributes.



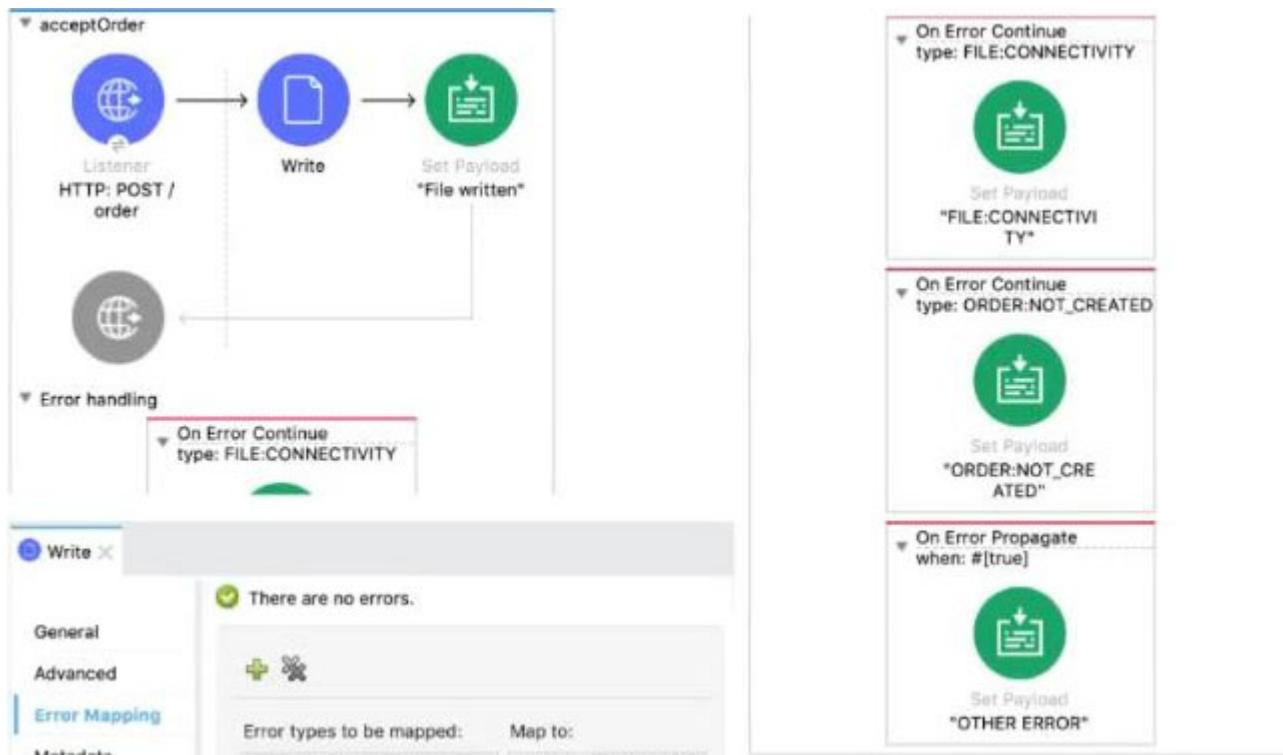
Diagram

Description automatically generated

Bottom of Form

Top of Form

225. Refer to the exhibits.



```

<flow name="acceptOrder">
    <http:listener doc:name="HTTP: POST /order" config-ref="HTTP_Listener_config"
        path="/order" allowedMethods="POST">
        <http:error-response>
            <http:body><![CDATA[#[output text/plain --- payload]]]></http:body>
        </http:error-response>
    </http:listener>
    <file:write doc:name="Write" config-ref="File_Config" path="newOrder.json">
        <error-mapping sourceType="FILE:CONNECTIVITY" targetType="ORDER:NOT_CREATED" />
        <file:content><![CDATA[#[output application/json --- payload]]]></file:content>
    </file:write>
    <set-payload value="#["File written"]" doc:name="File written" />

```

A web client sends a POST request with the payload `{"oid": "1000", "itemid": "AC200", "qty": "4"}` to the Mule application. The File Write operation throws a FILE:CONNECTIVITY error.

What response message is returned to the web client?

- A. "FILE:CONNECnvnY"
- B. "ORDER:NOT_CREATED"
- C. "OTHER ERROR"
- D. "File written"

Answer: B

226. There are three routes configured for Scatter-Gather and incoming event has a payload is an Array of three objects.

How routing will take place in this scenario?

- A. Incoming array objects would be split into three and each part would be sent to one route each in sequential manner

- B. Incoming array objects would be split into three and each part would be sent to one route each in parallel
- C. Entire event would be sent to each route sequentially
- D. Entire event would be sent to each route in parallel

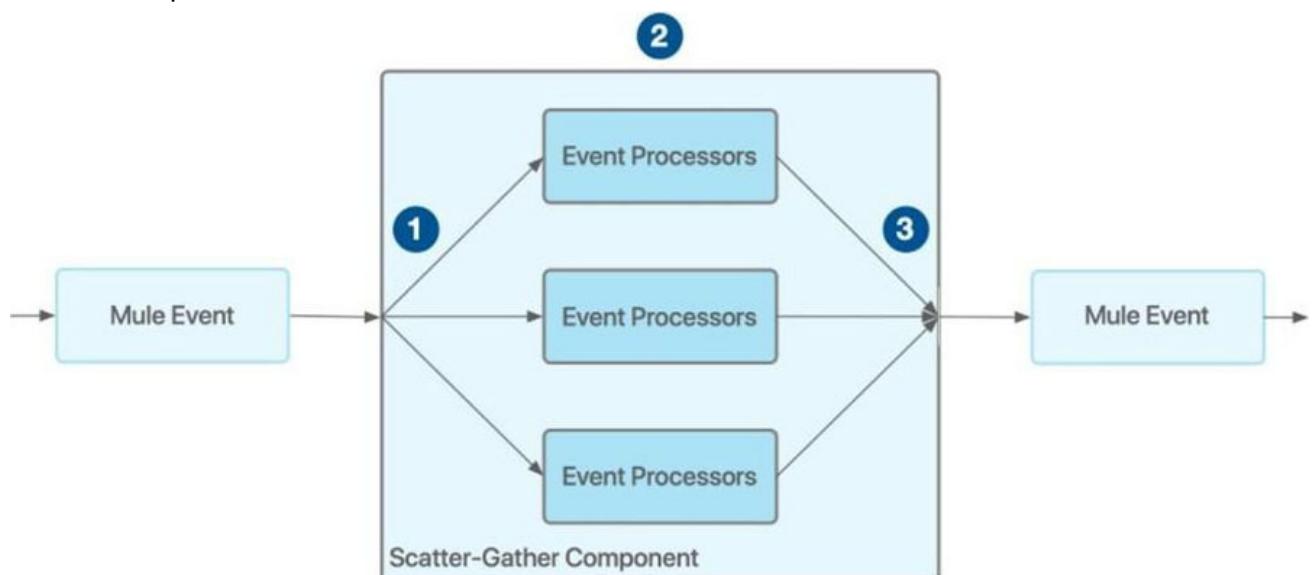
Answer: D

Explanation:

Entire event would be sent to each route in parallel.

Scatter-Gather works as follows:

- The Scatter-Gather component receives a Mule event and sends a reference of this Mule event to each processing route.
- Each of the processing routes starts executing in parallel. After all processors inside a route finish processing, the route returns a Mule event, which can be either the same Mule event without modifications or a new Mule event created by the processors in the route as a result of the modifications applied.
- After all processing routes have finished execution, the Scatter-Gather component creates a new Mule event that combines all resulting Mule events from each route, and then passes the new Mule event to the next component in the flow.



Diagram

Description automatically generated