

Salesforce Certified Mulesoft Developer I

Practice Exam

This practice exam helps you prepare for the [Salesforce Certified MuleSoft Developer I](#) certification exam. It has the same format, length, duration, and type of questions as the exam.

- Number of questions: 60
- Passing score: 70% (42 questions)
- Duration: 120 minutes

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Section 1: Creating Application Networks

1.

In an application network, the implementation, not the interface, of a product API is being changed.

Does anything need to change in the other APIs or the associated applications that consume the product API, and if so, what are these changes?

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

2.

According to MuleSoft, what is the first step to create a Modern API for use in an application network?

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

3.

A development team was developing a mobile banking app. It took the team two months to create their own APIs to access transaction information from a central database.

The development team later found out that another team had already built an API that accessed this transaction information.

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

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

4.

Refer to the exhibit. The API specification supports searching for articles on the searchworld.org site.

What is the correct URL and HTTP method to retrieve articles about "einstein" in XML format?

ENDPOINT:

<https://www.searchworld.org/s/api.php>

QUERY PARAMETERS:

action - Action type - required
options: compare,delete,save,search
query - Search string - required
profile - Search profile to use
options: strict,normal,classic
format - The format of the output
options: xml,xm1fm,json,jsonfm
namespace - Namespaces to search
options: 1,2,3,4

HEADERS:

AUTH - Authentication token - required

Method Request URL

GET <https://www.searchworld.org/s/api.php?action=search&query=einstein&format=xml>

Parameters ^

Headers Authorization Variables

Header name	Header value
AUTH	SK33DKD83829283JS

A

Method Request URL

GET <https://www.searchworld.org/s/api.php?query=einstein&format=xml>

Parameters ^

Headers Authorization Variables

Header name	Header value
AUTH	SK33DKD83829283JS

B

Method POST Request URL
https://www.searchworld.org/s/api.php?action=search&query=einstein&format=xml

Parameters ^

Headers	Authorization	Body	Variables
<input type="checkbox"/> <input type="button" value="Toggle source mode"/> <input type="button" value="Insert headers set"/>			
Header name AUTH	Header value SK33DKD83829283JS		

C

Method GET Request URL
https://www.searchworld.org/s/api.php?action=search&query=einstein&format=xml

Parameters ^

Headers	Authorization	Variables
<input type="checkbox"/> <input type="button" value="Toggle source mode"/> <input type="button" value="Insert headers set"/>		
Header name	Header value	

D

Section 2: Designing APIs

5.

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

6.

Refer to the exhibit. This RAML file generates an error.

What needs to be done to make this valid RAML?

```
1. #%%RAML 1.0
2. version: v1
3. title: American Flights API
4.
5. /flights:
6.   get:
7.
8.   /{flight_id}:
9.
10. get:
```

- A Indent the get method under the {flight_id} resource
- B Remove the blank line on row 7
- C Enclose the {flight_id} resource in parentheses () instead of curly braces {}
- D Outdent the {flight_id} resource

7.

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

What is the correct syntax to reference the fragment?

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

8.

Refer to the exhibit. A shopping API contains a method to look up store details by department.

According to this RAML specification, what is a valid URL for a web client to submit a GET request for details about the pharmacy department at the store with storeId 23?

```
/stores:  
  post:  
  get:  
    /{storeId}:  
      get:  
        queryParameters:  
          department:  
          store_id:
```

- A /stores/23?store_id=23&department="pharmacy"
- B /stores/{23}?store_id=23&department="pharmacy"
- C /stores/\${23}?store_id=23&department="pharmacy"
- D /stores/\${23}/store_id=23&department="pharmacy"

9.

Refer to the exhibit. The RAML file defines a method to create users.

What is the correct way to create a user in a web client?

```
#%RAML 1.0
title: ACME Insurance API

/users:
  post:
    headers:
      username: string
      password: string
    body:
      application/json:
```

A

The screenshot shows a web-based API testing interface. At the top, it displays the method (POST) and request URL (<http://localhost:8081/api/users>). Below this, there's a 'SEND' button and a more options menu. Underneath, there's a 'Parameters' section with a header table. The table has columns for Headers, Authorization, Body, Variables, and Actions. In the Headers row, there are three entries: Content-Type (application/json), username (max), and password (mule). Each entry has a delete (X) icon in the Actions column. At the bottom of the table, there's a red 'ADD HEADER' button.

Headers	Authorization	Body	Variables	Actions
Content-Type application/json				X
username max				X
password mule				X

B

Method POST Request URL http://localhost:8081/api/users?username=max&password=mule

SEND ⋮

Parameters ^

Headers	Authorization	Body	Variables	Actions
<input type="checkbox"/> <input type="button" value="Toggle source mode"/> <input type="button" value="Insert headers set"/>				
Header name Content-Type	Header value application/json			<input type="button" value="X"/> <input type="button" value="Edit"/> <input type="button" value="Help"/>

ADD HEADER

A Headers size: 30 bytes

C

Method POST Request URL http://localhost:8081/api/users/max/mule

SEND ⋮

Parameters ^

Headers	Authorization	Body	Variables	Actions
<input type="checkbox"/> <input type="button" value="Toggle source mode"/> <input type="button" value="Insert headers set"/>				
Header name Content-Type	Header value application/json			<input type="button" value="X"/> <input type="button" value="Edit"/> <input type="button" value="Help"/>

ADD HEADER

A Headers size: 30 bytes

D

Method POST Request URL http://localhost:8081/api/users?username=headers&password=headers

SEND ⋮

Parameters ^

Headers	Authorization	Body	Variables	Actions
<input type="checkbox"/> <input type="button" value="Toggle source mode"/> <input type="button" value="Insert headers set"/>				
Header name Content-Type	Header value application/json			<input type="button" value="X"/> <input type="button" value="Edit"/> <input type="button" value="Help"/>
Header name username	Header value username:max			<input type="button" value="X"/>
Header name password	Header value password:mule			<input type="button" value="X"/>

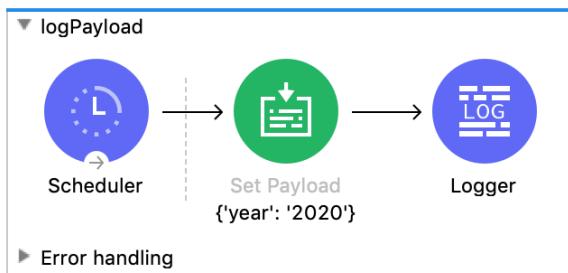
ADD HEADER

Section 3: Accessing and modifying Mule Events

10.

Refer to the exhibit. 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?



```
<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>
```

- A 'The year is #[payload.year]'
- B '# ["The year is ++ payload.year"]'
- C '# ["The year is " + payload.year]'
- D '# [The year is \$(payload.year)]'

11.

A web client sends 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 a valid DataWeave expression to access the bookISBN variable later in the flow?

- A `vars.bookISBN`
- B `bookISBN`
- C `variables.bookISBN`
- D `attributes.bookISBN`

12.

A client submits a GET request to a Mule 4 application to the endpoint /customers?id=48493.

Where is the ID stored in the Mule event by the HTTP Listener?

- A Attributes
- B Inbound Properties
- C Variables
- D Payload

13.

An HTTP Request operation sends an HTTP request with a non-empty JSON-formatted object payload to an external HTTP endpoint. The response from the external HTTP endpoint returns an XML-formatted body.

The result is stored in a target named theResult.

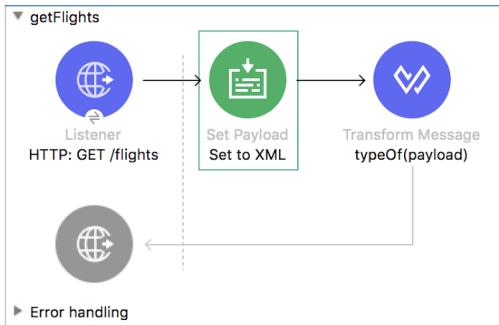
What is the format of the payload that is input to the next event processor after the HTTP Request?

- A application/json
- B application/dw
- C application/xml
- D application/java

14.

Refer to the exhibits. A web client submits a request to <http://localhost:8081/flights>.

What is the result at the end of the flow?



Message Flow Global Elements Configuration XML

A screenshot of the Mule Studio interface showing the configuration for the 'Set to XML' component. The tab bar at the top includes 'Set to XML' (which is selected), 'Problems', and 'Console'. The main area displays the component's settings:

- General**:
 - Display Name: Set to XML
 - Settings:
Value: <ns2:listAllFlightsResponse xmlns:ns2="http://soap.training.mulesoft.com/"><return><airlineName>Delta</airlineName><code>A1B2C3</code><departureDate>2015/03/20</departureDate></return></ns2:listAllFlightsResponse>
- MIME Type Settings**:
 - Encoding: (dropdown menu)
 - MIME Type: (dropdown menu)

```
<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;A1B2C3&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-bd9c2929209e" >
        <ee:message><ee:set-payload><![CDATA[%dw 2.0
            output application/json
            ---
            typeOf(payload)]]></ee:set-payload>
        </ee:message>
    </ee:transform>
</flow>
```

- A "String"
- B "Object"
- C "Java"
- D "XML"

15.

Refer to the exhibit. An HTTP Listener is being configured to accept requests from web clients on URLs like `http://localhost:8081/accounts/10`, where the number 10 can change to other numbers.

In order to capture the number in a parameter named ID, to what must the path of the HTTP Listener component be set?

The screenshot shows the 'Listener' configuration screen in Mule Studio. The 'General' tab is selected. At the top, a message says 'There are no errors.' Below it, the 'Display Name' is set to 'Listener'. Under 'Basic Settings', the 'Connector configuration' dropdown is set to 'HTTP_Listener_config' with a '+' icon to add more configurations. In the 'General' section, there is a 'Path:' input field which is currently empty. On the left sidebar, other tabs like 'MIME Type', 'Redelivery', 'Responses', 'Advanced', 'Metadata', and 'Notes' are listed.

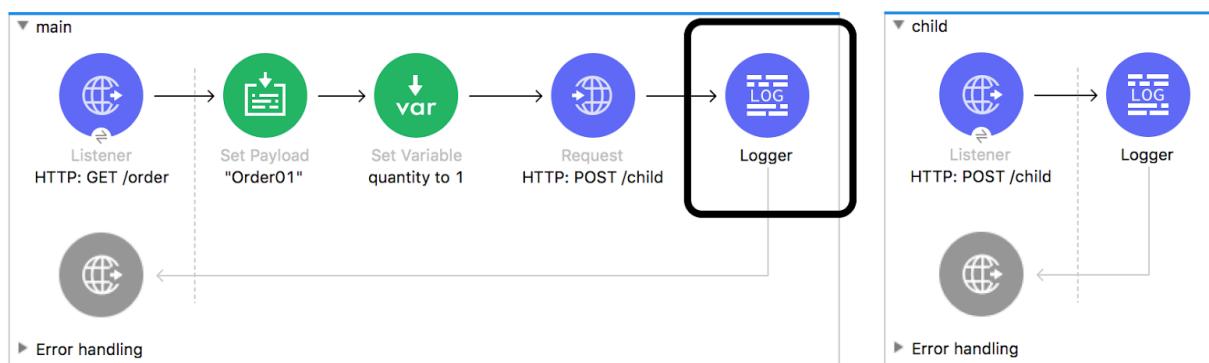
- A /accounts/{ID}
- B /accounts/ID
- C /accounts/# [ID]
- D #[/accounts/ID]

Section 4: Structuring Mule Applications

16.

Refer to the exhibits. The main flow contains an HTTP Request in the middle of the flow. The HTTP Listeners and HTTP Request use default configurations.

After a web client submits a request to `http://localhost:8081/order?color=red`, what values are accessible to the Logger at the end of the main flow?



```
<http:request method="POST" doc:name="HTTP: POST /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"/>
```

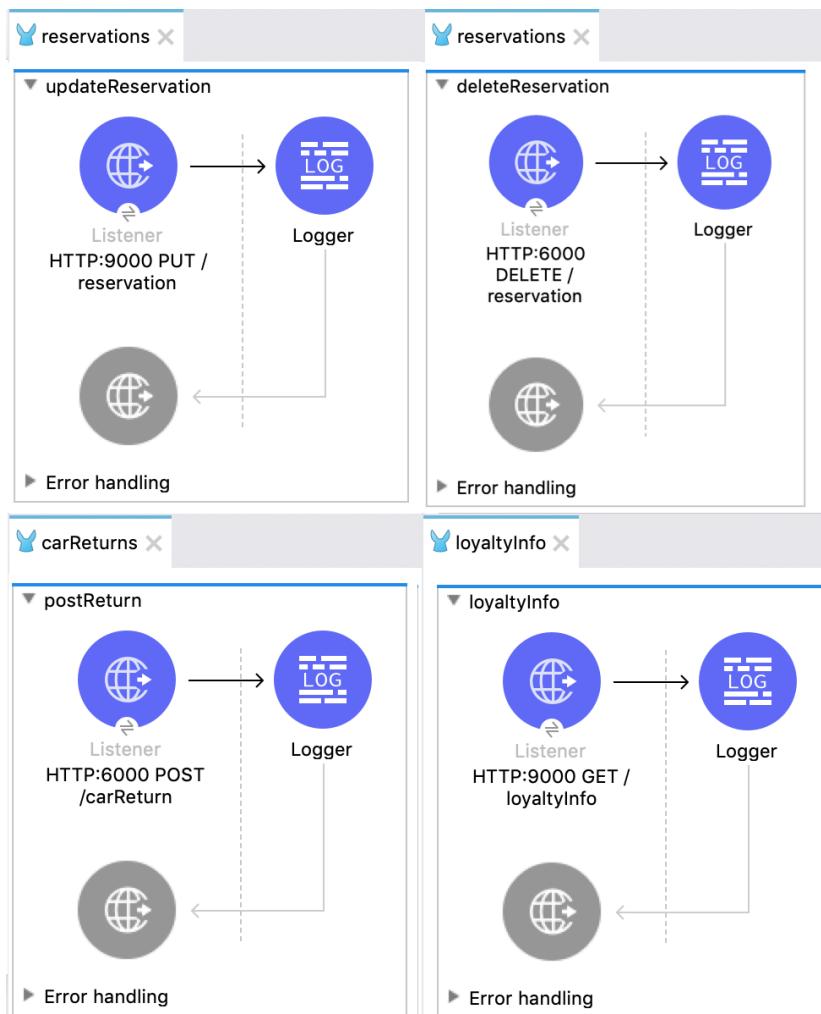
- A payload
quantity var
- B payload
- C payload
color query param
- D payload
color query param
quantity var

17.

Refer to the exhibits. The Mule application has multiple HTTP Listeners contained in various configuration XML files.

Each HTTP Listener is configured with the same host and with the port number, path, and operation shown in its display name.

What is the minimum number of global elements that must be defined to support all these HTTP Listeners?



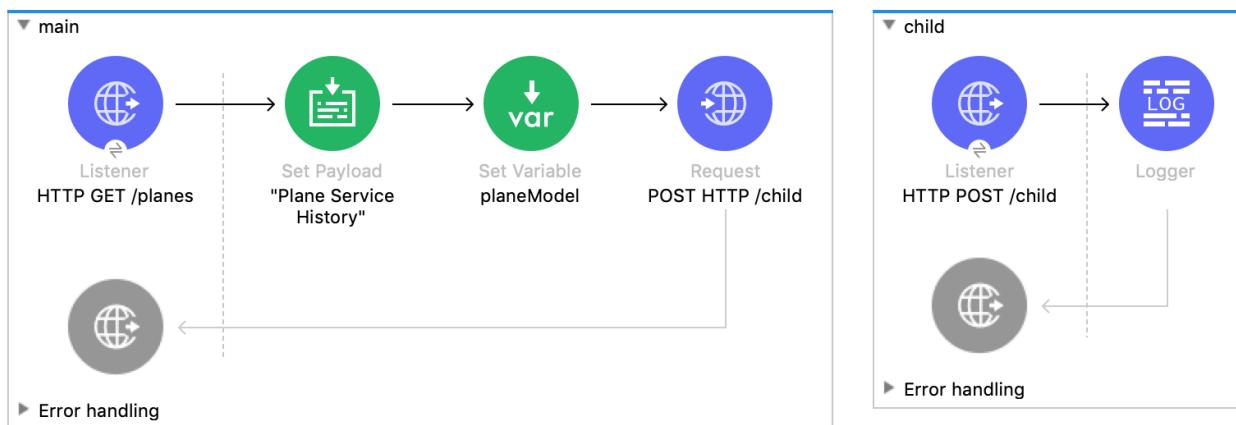
- A 1
- B 2
- C 3
- D 4

18.

Refer to the exhibits. The main flow contains an HTTP Request. The HTTP Listeners and HTTP Request use default configurations.

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

What value(s) are accessible in the child flow?



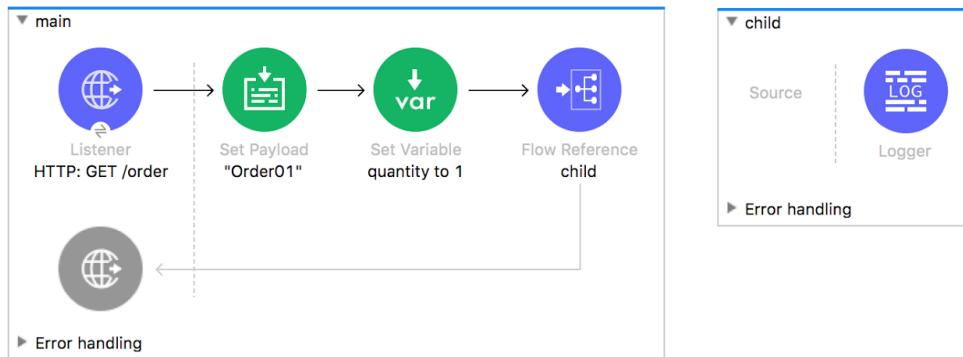
```
<http:request method="POST" doc:name="POST HTTP /child" url="http://localhost:8081/child">
</http:request>
```

- A The payload
- B The payload
The modelName query param
- C The payload
The planeModel var
- D The payload
The modelName query param
The planeModel var

19.

Refer to the exhibit. The main flow contains a Flow Reference for the child flow.

After a web client submits a request to `http://localhost:8081/order?color=red`, what values are accessible in the child flow?



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

20.

Refer to the exhibits. This 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.

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

The screenshot shows the Mule Studio interface. On the left, there's a configuration panel for an 'HTTP_Request_config' component. It has sections for 'Basic Settings' (Name: 'HTTP_Request_config') and 'URL Configuration' (Base path: '/'). On the right, a code editor window titled 'config.yaml' displays the following YAML configuration:

```
1 training:  
2   host: "mu.learn.mulesoft.com"  
3   port: "80"  
4   basepath: "/"  
5   protocol: "HTTP"
```

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

21.

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 A global element
- B A flow attribute
- C The pom.xml file
- D The mule-artifact.json file

Section 5: Building API Implement Interface

22.

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/*
- D /apis/orders|customers

23.

Refer to the exhibit. How many private flows does APIkit generate from the RAML specification?

```
#%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:
```

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

24.

When using MuleSoft's API-led connectivity approach, what HTTP method in a RESTful web service is generally recommended to be used to completely replace an existing resource?

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

25.

An API specification is defined using RAML.

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

- A Publish the API specification to Anypoint Exchange
- B Add the specification to a Mule project's src/main/resources/api folder
- C Download the API specification and build the interface using APIkit
- D Implement the API specification using Flow Designer

Section 6: Using Connectors

26.

Refer to the exhibits. The /daily folder exists, is currently empty, and files can be read and written to this folder by Anypoint Studio.

This Mule application is run in Anypoint Studio, and then a file named productUpdates.txt containing the text "START" is written to the /daily folder.

What is in the /daily folder after the readUpdates flow completes for the first time?

The screenshot shows the Anypoint Studio interface with the following details:

- Flow Overview:** A flow named "readDailyFile" is shown with two main components: "On New or Updated File /daily" and "Set Payload "Finished"".
- Configuration Panel:** The "General" tab is selected in the sidebar. Key settings include:
 - Directory:** /daily
 - Scheduling Strategy:** Fixed Frequency (Frequency: 30, Start delay: 0, Time unit: SECONDS)
 - Post processing action:** Auto delete: False, Move to directory: /daily, Rename to: #[attributes.fileName as String ++ ".bak"]
- Message Flow View:** Below the configuration panel, the message flow is displayed in XML format:

```
<flow name="readDailyFile" >
    <file:listener doc:name="/daily" directory="/daily" moveToDirectory="/daily"
        renameTo="#[attributes.fileName as String ++ ".bak"]">
        <scheduling-strategy >
            <fixed-frequency frequency="30" timeUnit="SECONDS" />
        </scheduling-strategy>
    </file:listener>
    <set-payload value="#[output application/json --- "FINISHED"]' doc:name='\"Finished\"'" />
</flow>
```

- A A file named productUpdates.txt.bak containing the text "START"
- B A file named productUpdates.txt.bak containing the text "FINISHED"
- C A file named productUpdates.txt containing the text "START"
A file named productUpdates.txt.bak containing the text "FINISHED"
- D A file named productUpdates.txt containing the text "START"
A file named productUpdates.txt.bak containing the text "START"

27.

What payload is returned by an Anypoint Connector for Database's Select operation that does not match any rows in the database?

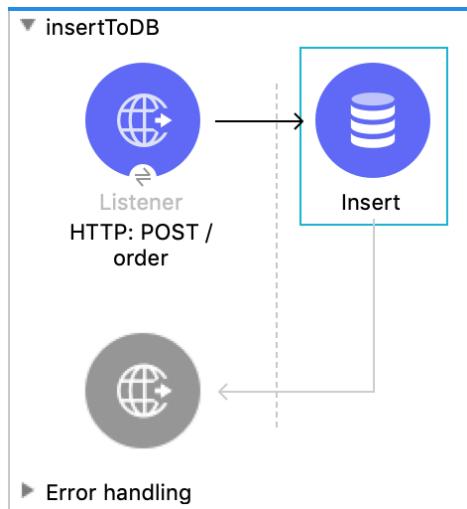
- A An empty array
- B false
- C null
- D An exception

28.

Refer to the exhibits. In the payload of a POST request to this Mule application, a web client sends a new order record

```
{ "oid": "100", "custId": "annie@acme.com", "status": "NEW ORDER" }.
```

In this Mule application, what value must be used in the Input Parameters field of the Database Insert operation to properly pass the order record values to the SQL statement?



The screenshot shows the Mule Studio interface with the 'Insert' component selected. The left sidebar lists tabs for General, Advanced, Error Mapping, Metadata, Notes, and Help. The General tab is active, showing the following configuration:

- Display Name: Insert
- Basic Settings: Connector configuration: Database_Config
- Query: SQL Query Text:
INSERT INTO orders.ORDER (orderId, CustomerName, status, startDate) VALUES (:oid, :custId, :status, now())
- Input Parameters: 1

A

```
# [
  {
    oid: payload.oid,
    custId: payload.custId,
    status: payload.status
  }
]
```

B

```
# [
  [
    payload.oid,
    payload.custId,
    payload.status
  ]
]
```

C

```
# [
  {
    orderId: payload.oid,
    customerName: payload.custId,
    status: payload.status
  }
]
```

D

```
# [
  inputParams: [
    payload.oid,
    payload.custId,
    payload.status
  ]
]
```

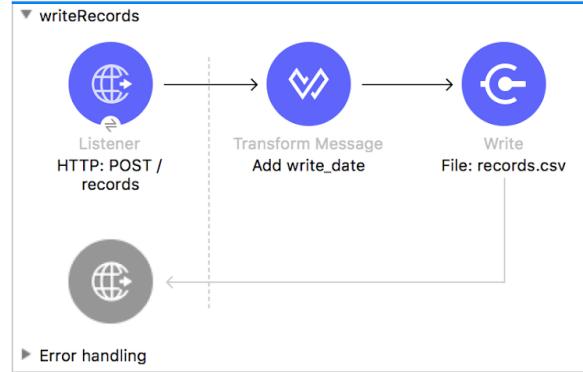
29.

Refer to the exhibits. When the flow executes, the now() function in the Transform Message component returns "2021-08-26T13:32:10.64-07:00".

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

Payload

```
{  
    "transaction_id": "SS-4848-44KK-4SYQ",  
    "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>
```

A

```
{  
    "transaction_id": "SS-4848-44KK-4SYQ",  
    "account_id": "KA-382-SKD44",  
    "name": "Max Mule",  
    "position": "sell",  
    "write_date": "2021-08-26T13:32:10.64-07:00"  
}
```

B

```
{  
    "transaction_id": "SS-4848-44KK-4SYQ",  
    "account_id": "KA-382-SKD44",  
    "name": "Max Mule",  
    "position": "sell"  
}
```

C

```
transaction_id, account_id, name, position, write_date  
"SS-4848-44KK-4SYQ", "KA-382-SKD44", "Max Mule", "sell",  
"2021-08-26T13:32:10.64-07:00"
```

D

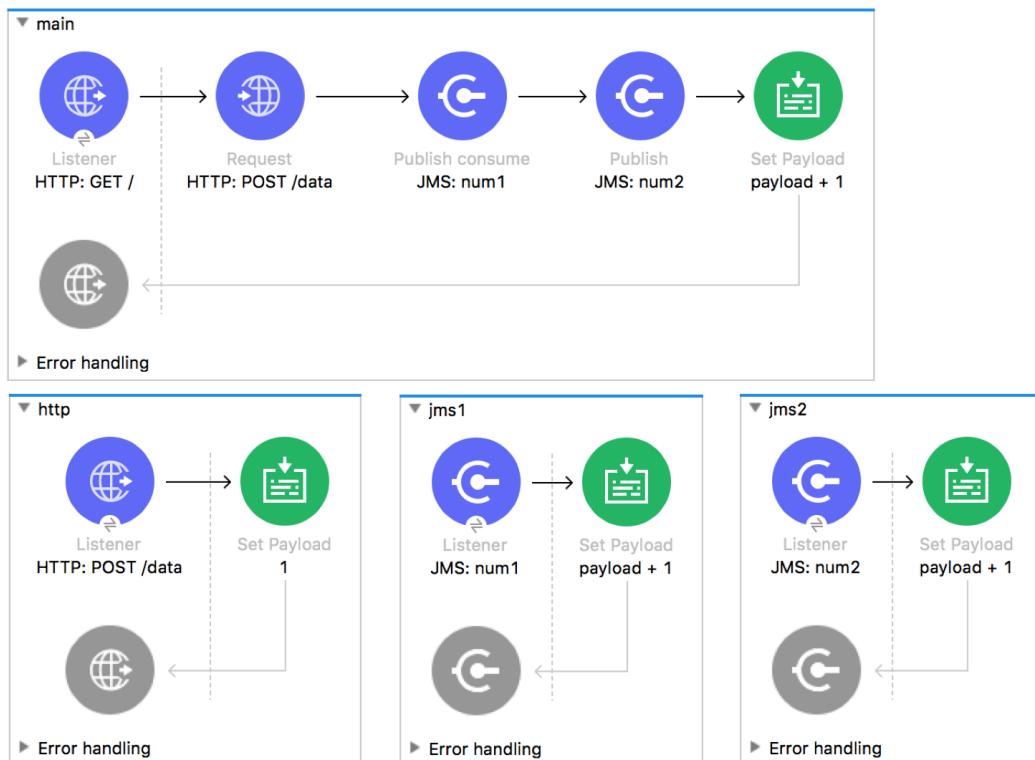
```
transaction_id, account_id, name, position  
"SS-4848-44KK-4SYQ", "KA-382-SKD44", "Max Mule", "sell"
```

30.

Refer to the exhibits. The main flow of this Mule application uses an HTTP connector operation and two JMS connector operations.

The Mule application is run and starts successfully, and then a local web client sends a request to <http://localhost:8081/>.

What payload is then returned to the web client from the Mule application?



```
<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>
```

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

31.

A flow contains a Database Select operation followed by an HTTP Request operation. The flow must combine and return data received from these two connector operations.

What is a valid and idiomatic (used for its intended purpose) way to capture both payloads so the payload output from the second HTTP Request operation does not overwrite the payload output from the first Database Select operation?

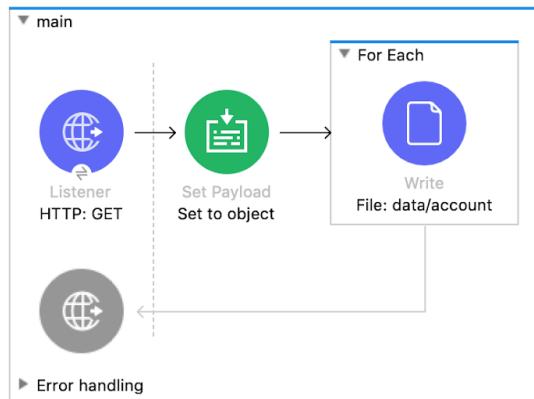
- A Save the payload from the Database Select operation to a variable
- B Put the Database Select operation in a Try scope configured with a transaction
- C Set the combinedPayloads attribute to true in the Database Select operation configuration
- D Put the Database Select operation inside a Cache scope

Section 7: Processing Records

32.

Refer to the exhibits. In this Mule application files are written from inside a For Each scope.

What is written to the file system when the flow executes, and what payload is returned in the response to the web client?



```
<flow name="main" >
    <http:listener doc:name="HTTP: GET" config-ref="HTTP_Listener_config" path="/" />
    <set-payload value="#{output application/json"

var objects = {
    "account": {
        "accountID": "4829ADJ-4833",
        "name": "Mary Loo",
        "balance": 48191.48
    },
    "account": {
        "accountID": "4382AJJ-4833",
        "name": "Lauren Flork",
        "balance": 1391.48
    },
    "account": {
        "accountID": "KJ6FF8-4833",
        "name": "Lak Li",
        "balance": 282.48
    }
}
objects] doc:name="Set to object" />
    <foreach doc:name="For Each" batchSize="2">
        <file:write doc:name="File: data/account" path="#{"data/account-" ++ random()}">
            <file:content ><![CDATA[#{output application/json --- payload}]]&lt;/file:content&gt;
        &lt;/file:write&gt;
    &lt;/foreach&gt;
&lt;/flow&gt;
&lt;/mule&gt;</pre>
```

- A Two files are created, each containing a different array of one or two account objects

The response payload is a JSON formatted object of account objects that is created in the Set Payload transformer

- B One file is written with an error message
The response payload is the error message

- C Two files are created, each containing a different object of one or two account objects

The response payload is a JSON formatted array of two objects, where each object is a duplicate copy of the object of account objects written to each file

- D Three files are created, one for each account object
The response payload is a success message without any account objects

33.

A batch job is defined by a Batch Job scope that contains three batch steps. The Batch Job scope and Batch Step scopes are configured with default acceptPolicy values.

An event processor in the second Batch Step scope throws an error because the input data is incomplete.

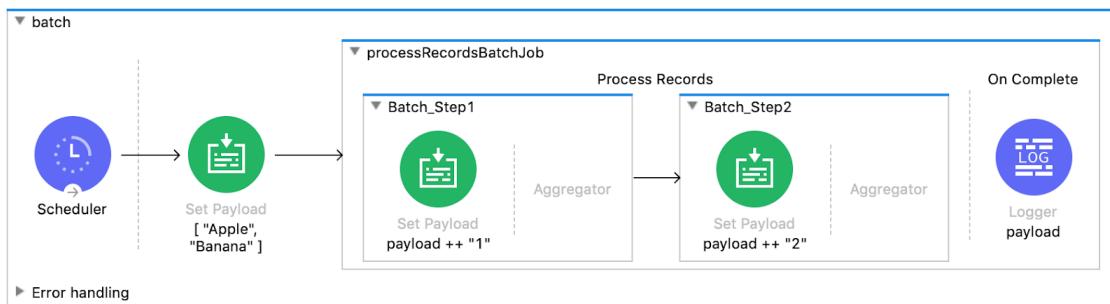
What is the default behavior of the batch job after the error is thrown?

- A The Batch Job scope stops processing all records
- B The second Batch Step scope's error is reversed and the repaired records are passed to the third Batch Step scope for processing
- C The second Batch Step scope is retried with the same data
- D All existing in-flight records are discarded, but new records are still passed to the first Batch Step scope and processed

34.

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 ["Apple12", "Banana12"]
- D ["Apple1", "Banana1", 2]

35.

A database table contains a recordID column that increases as new records get added to the table.

A Mule application is created to read from this database table.

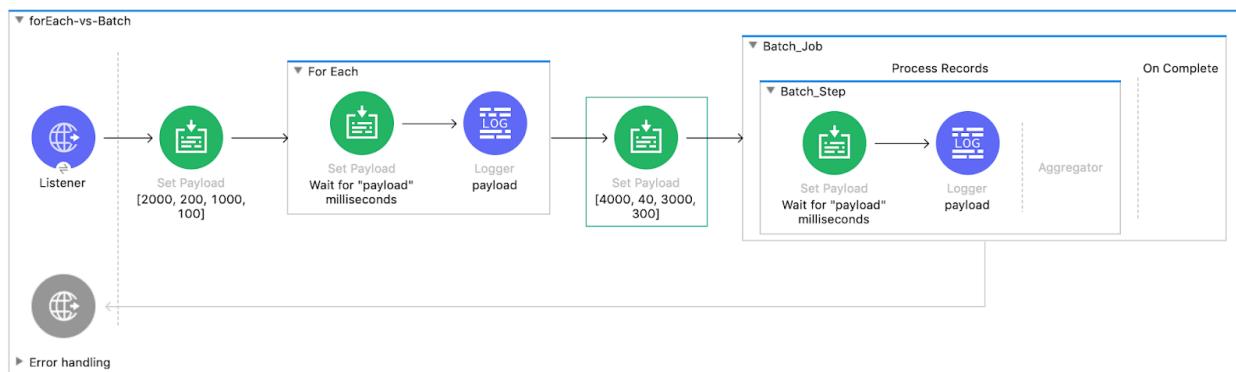
What is the key process to enable manual watermarking for requests to this database table using a Scheduler event source and a Database Select operation?

- A Save the max recordID from the set of recordIDs in an Object Store and reference this recordID in subsequent database requests
- B Enable automatic watermarking in the Database Select operation
- C Set the Watermark column in the Scheduler to the recordID
- D Save the max recordID from the set of recordIDs in a variable and reference this variable in subsequent database requests

36.

Refer to the exhibits. The Set Payload transformer in the For Each scope and the Set Payload transformer in the Batch Job scope's Batch Step scope each contain a DataWeave expression to sleep (pause processing) for the number of milliseconds in the current payload. The Batch Job scope's block size is set to 1.

In what order are the payloads logged in the For Each scope and in the Batch Step scope?



There are no errors.

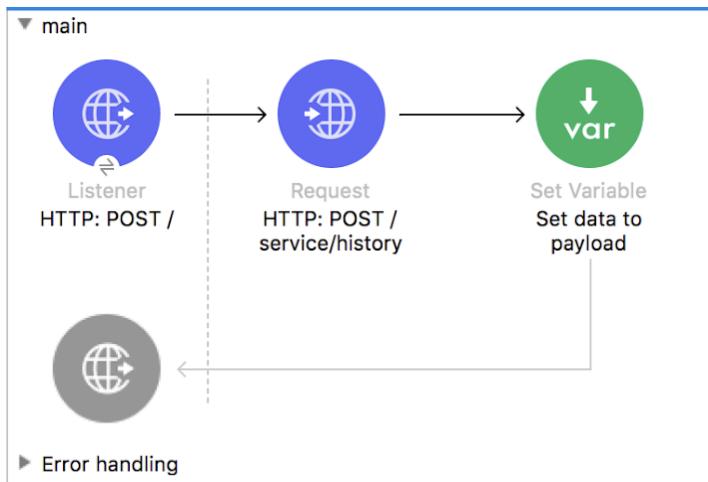
Name:	Batch_Job
Max Failed Records:	0
Scheduling Strategy:	ORDERED_SEQUENTIAL (Default)
Job Instance ID:	
Batch Block Size:	1
Max concurrency:	
Target:	

- A For Each scope: 2000, 200, 1000, 100
Batch Step scope: 40, 300, 3000, 4000
- B For Each scope: 100, 200, 1000, 2000
Batch Step scope: 4000, 40, 3000, 300
- C For Each scope: 2000, 200, 1000, 100
Batch Step scope: 4000, 40, 3000, 300
- D For Each scope: 100, 200, 1000, 2000
Batch Step scope: 40, 300, 3000, 4000

37.

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 Session variables
- C Properties of the Mule runtime flow object
- D Properties of the Mule runtime app object

Section 8: Transforming Data

38.

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

39.

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 reformats strings to pascal case.

What is valid DataWeave code to call the pascalize function in a Transform Message component?

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

40.

Refer to the exhibit. DataWeave code needs to be written to transform the input payload to the output payload.

What is valid DataWeave code to perform this transformation?

The screenshot shows the Mule Studio interface with the 'Transform Message' tab selected. On the left, there is a code editor window titled 'list_unknown.dwl' containing the following DataWeave script:

```
[{"employee1": {"firstName": "Aanya", "lastName": "Anand", "details": {"dept": "Engineering", "region": "APAC"}}, {"employee2": {"firstName": "Bob", "lastName": "Brown", "details": {"dept": "Marketing", "region": "USA"}}}]
```

In the center, there is a 'Map' component with three mapping steps. The first step is highlighted in blue and has the label 'at'. The second step is greyed out. The third step is also greyed out. To the right of the map, under the heading 'Output Payload', is the resulting XML output:

```
<?xml version='1.0' encoding='UTF-8'?>
<employees>
  <employee firstName="Aanya" lastName="Anand"/>
</employees>
```

A %dw 2.0
output application/xml

employees :
 employee @(
 firstName: payload[0].employee1.firstName
,
 lastName: payload[0].employee1.lastName
) : null

B %dw 2.0
output application/xml

employees :
 employee (
 firstName: payload[0].employee1.firstName
,
 lastName: payload[0].employee1.lastName
) : ""

C %dw 2.0
output application/xml

employees :
 employee @(
 firstName: payload[0].employee1.firstName
;
 lastName: payload[0].employee1.lastName
) : null

D %dw 2.0
output application/xml

employees :
 employee (
 firstName: payload[0].employee1.firstName
;
 lastName: payload[0].employee1.lastName
) : ""

41.

Refer to the exhibit. An event payload contains an unordered array of flight objects, where every object has a price key and a toAirport key.

What is valid DataWeave code to return flights with a price under 500, grouped by toAirport in ascending order, with the lowest price first?

```
[{"planeType": "Boeing 787", "code2": "0001", "toAirport": "LAX", "takeOffDate": "2015-01-20", "fromAirport": "MUA", "price": 541, "airlineName": "American Airlines", "seatsAvailable": "none", "code1": "rree"}, {"planeType": "Boeing 747", "code2": "0123", "toAirport": "CLE", "takeOffDate": "2015-01-25", "fromAirport": "MUA", "price": 300, "airlineName": "American Airlines"}, ...]
```

→

```
{ "CLE": [ { "planeType": "Boeing 737", "code2": "1000", "toAirport": "CLE", "takeOffDate": "2015-01-20", "fromAirport": "MUA", "price": 200, "airlineName": "American Airlines", "seatsAvailable": "5", "code1": "rree" }, { "planeType": "Boeing 747", "code2": "0123", "toAirport": "CLE", "takeOffDate": "2015-01-25", "fromAirport": "MUA", "price": 300, "airlineName": "American Airlines", "seatsAvailable": "7", "code1": "rree" } ], "SFO": [ { "planeType": "Boeing 737", ... } ] }
```

- A payload filter \$.price < 500 orderBy \$.price groupBy \$.toAirport
- B payload groupBy \$.toAirport filter \$.price < 500 orderBy \$.price
- C payload groupBy \$.toAirport filter \$.price > 500 orderBy \$.price
- D payload filter \$.price > 500 orderBy \$.price groupBy \$.toAirport

42.

What is the output type of the DataWeave map function?

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

43.

What is the correct way to format the decimal 20.3844 as a string to two decimal places?

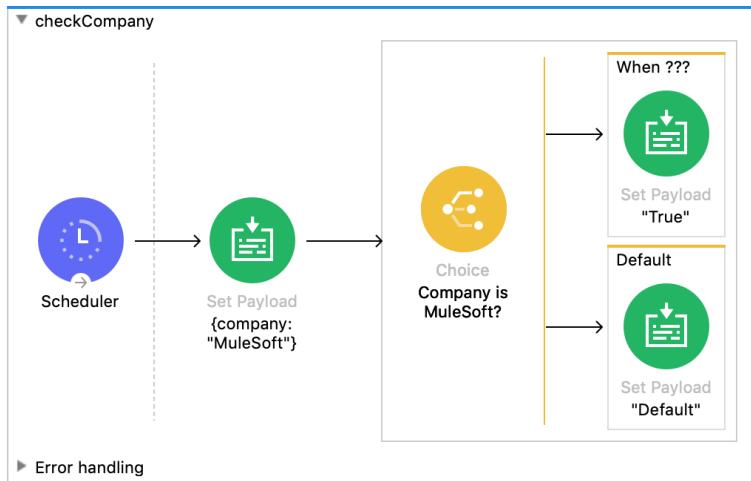
- A 20.3844 as String {format: ".0#"}
- B 20.3844 format(String: ".0#")
- C 20.3844 as String ({format: ".0#"})
- D 20.3844 {format: ".0#" as String}

Section 9: Routing Events

44.

Refer to the exhibits. 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?



```
<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>
```

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

45.

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

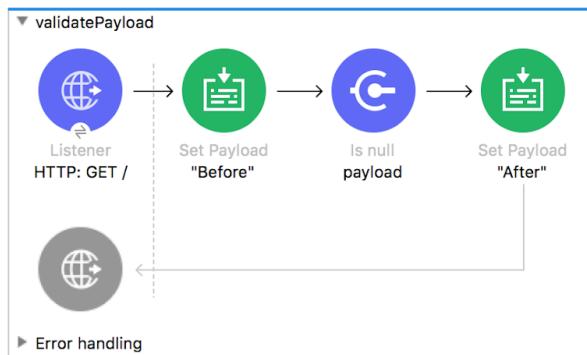
What is the final output of the Scatter-Gather?

- A An object containing three Mule event objects
- B An array of three JSON payload objects
- C An array of three Mule event objects
- D An object containing three JSON payload objects

46.

Refer to the exhibits. The Mule application does NOT define any global error handler elements.

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



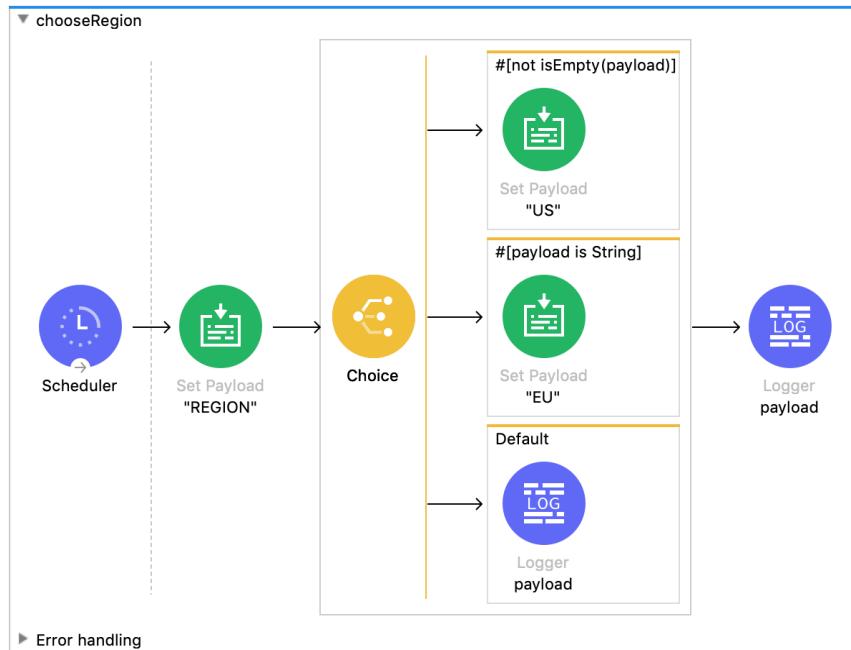
```
<flow name="validatePayload" >
  <http:listener doc:name="HTTP: GET /" config-ref="HTTP_Listener_config" path="/" />
  <set-payload value="Before" doc:name="Before" />
  <validation:is-null doc:name="payload" value="#{payload}" message="Validation Error"/>
  <set-payload value="After" doc:name="After"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

- A Validation Error
- B "After"
- C "Before"
- D null

47.

Refer to the exhibits. The Mule application contains a Choice router.

What is logged when the flow completes?



```
<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 "US"
- B "EU"
- C ["US","EU"]
- D "REGION"

48.

An event contains a payload that is an array of objects.

How is the event routed in a Scatter-Gather?

- A The entire event is sent to each route and processed in parallel
- B The entire event is sent to each route and processed sequentially
- C The event is split and events with different smaller payloads are routed and processed in parallel
- D The event is split and events with different smaller payloads are routed and processed sequentially

Section 10: Handling Errors

49.

A Mule application contains a global error handler configured to catch any errors.

Where must the global error handler be specified so that it catches all errors from flows that do not have their own error handlers?

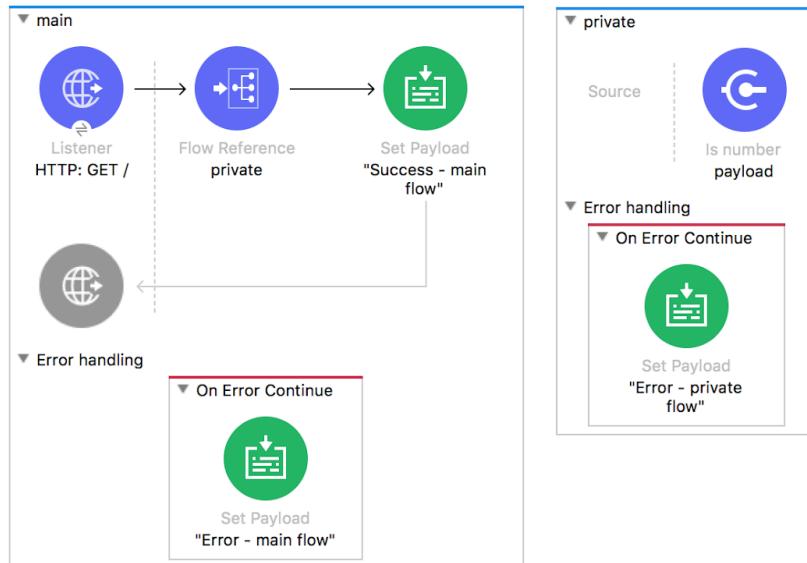
- A In a global element
- B In a configuration properties file
- C In a pom.xml file
- D In the mule-artifact.json file

50.

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 client request to the main flow's HTTP Listener?



```
<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>
```

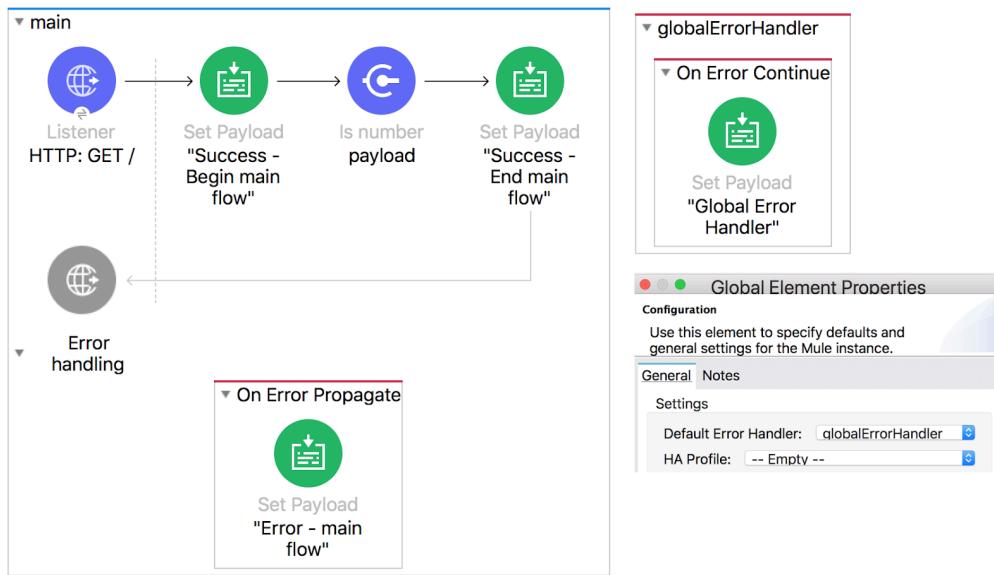
- A "Success - main flow"
- B "Error - main flow"
- C "Error - private flow"
- D "Validation Error"

51.

Refer to the exhibits. A web client makes an HTTP GET request to the flow's HTTP Listener.

The Validation component then throws an error with the message "Validate - Payload is an Integer".

What response message is returned to the web client?



```
<configuration doc:name="Configuration" defaultErrorHandler-ref="globalErrorHandler" />
<error-handler name="globalErrorHandler" >
    <on-error-continue enableNotifications="true" logException="true" doc:name="On Error Continue" >
        <set-payload value="Global Error Handler" doc:name="Global Error Handler" />
    </on-error-continue>
</error-handler>
<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="/" />
    <set-payload value='Success - Begin main flow' doc:name='Success - Begin main flow' />
    <validation:is-number numberType="INTEGER" >
        <doc:name="payload" value="#{payload}" />
        <message>Validate - Payload is an Integer</message>
    </validation:is-number>
    <set-payload value="Success - End main flow" doc:name='Success - End main flow' />
    <error-handler >
        <on-error-propagate enableNotifications="true" logException="true" doc:name="On Error Propagate" >
            <set-payload value="Error - main flow" doc:name='Error - main flow' />
        </on-error-propagate>
    </error-handler>
</flow>
```

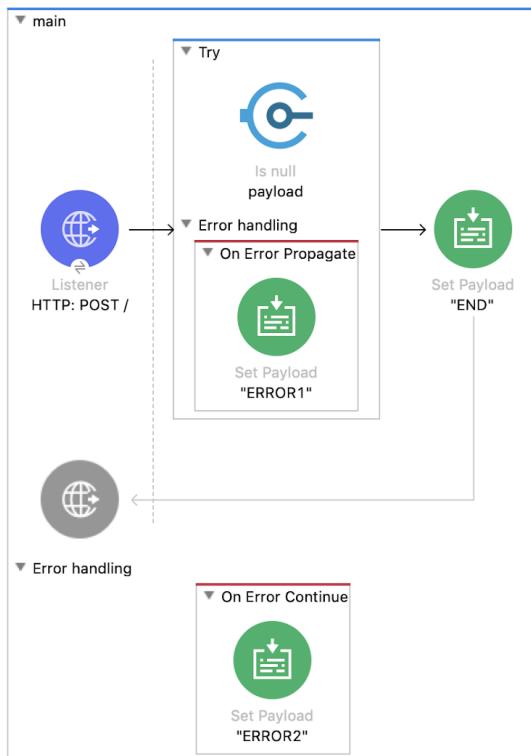
- A "Validate - Payload is an Integer"
- B "Error - main flow"
- C "Success - Begin main flow"
- D "Success - End main flow"

52.

Refer to the exhibits. The Mule application does NOT define any global error handlers.

A web client sends an HTTP 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?



```
<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>
```

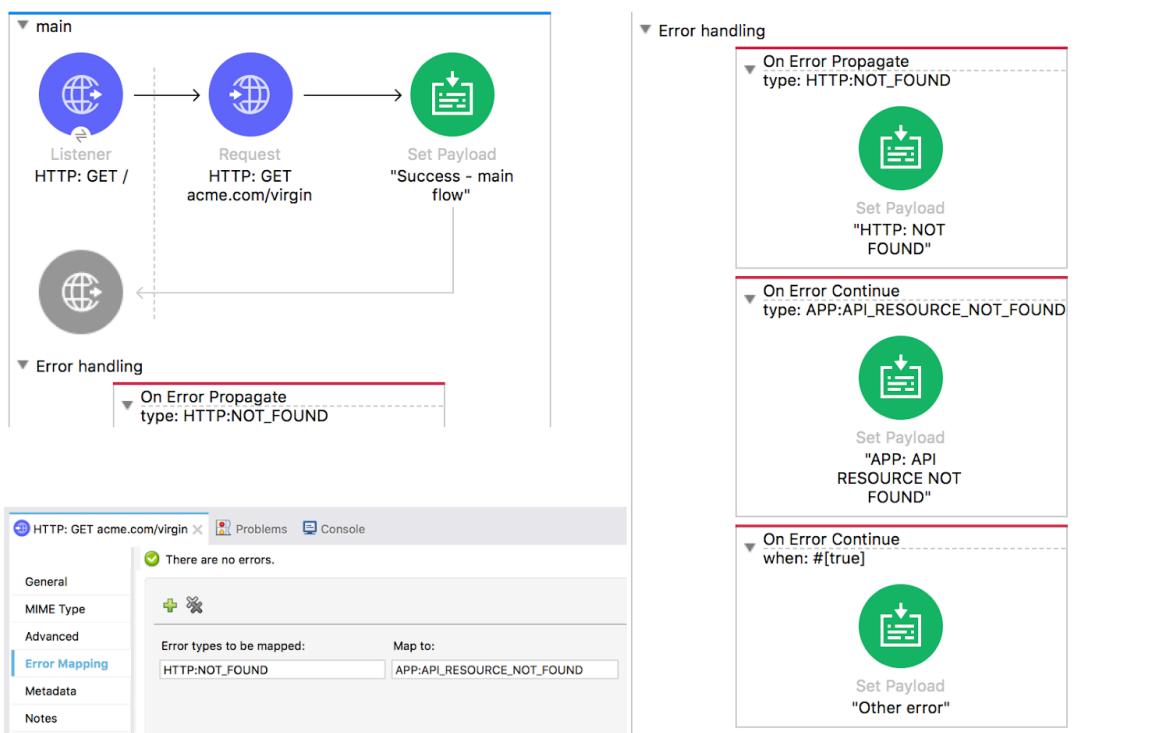
- A "ERROR2"
- B "ERROR1"
- C "END"
- D "Validation Error"

53.

Refer to the exhibits. The Mule application does NOT define any global error handlers. The main flow is configured with three error handlers.

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

What response message is returned?



```
<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>
```

- A "APP: API RESOURCE NOT FOUND"
- B "HTTP: NOT FOUND"
- C "Other error"
- D "Success - main flow"

Section 11: Debugging and Troubleshooting Mule Apps

54.

Refer to the exhibit. This error occurs when a Mule project is imported into and run in Anypoint Studio. The Mule project has a dependency that is not in a MuleSoft Maven repository, but the Mule project successfully ran on the original computer where the Mule project was developed.

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

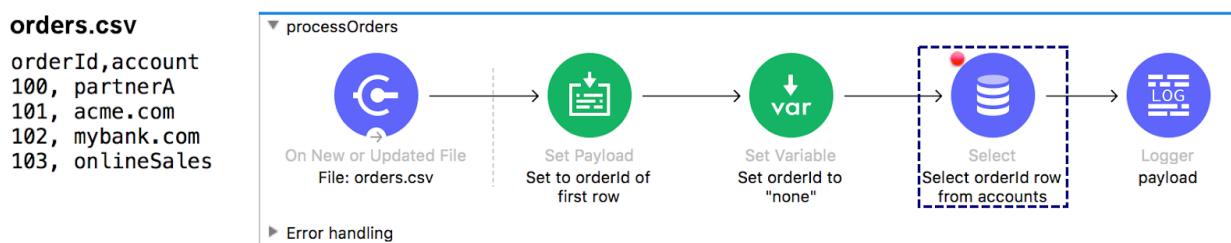
```
[WARNING] The POM for com.mulesoft.training:mock-servers:jar:1.1.2 is missing, no dependency information available
[INFO] -----
[INFO] BUILD FAILURE
[INFO] -----
[INFO] Total time: 0.253 s
[INFO] Finished at: 2018-06-14T10:52:39-07:00
[INFO] Final Memory: 190M/867M
[INFO] -----
[ERROR] Failed to 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]
```

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

55.

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

What payload is shown in the debugger at this breakpoint?



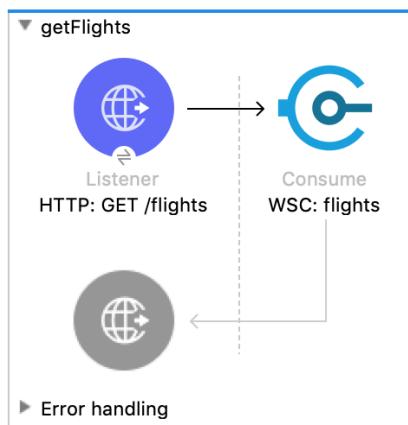
- A 100
- B An empty array
- C The database response
- D The entire CSV file

56.

Refer to the exhibits. A web client sends an HTTP GET request that includes a destination query parameter to the flow's HTTP Listener.

The Web Service Consumer throws a WSC:BAD_REQUEST error.

What should be set in the getFlights flow to fix this error?



```
*****
Message      : Cannot build default body request for operation [findFlight], the operation requires input parameters.
Error type   : WSC:BAD_REQUEST
Element       : getFlights/processors/0 @ 10.02.06_v1.1-alt3:10.02.06_v1.1-alt3.xml:36 (WSC: flights)
Element XML  : <wsc:consume doc:name="WSC: flights" config-ref="Web_Service_Consumer_Config"
operation="findFlight"></wsc:consume>
*****
(set debug level logging or '-Dmule.verbose.exceptions=true' for everything)
```

- A A SOAP payload before the Consume operation that contains the destination query parameter
- B A header in the Consume operation equal to the destination query parameter
- C A property in the Consume operation equal to the destination query parameter
- D A JSON payload before the Consume operation that contains the destination query parameter

Section 12: Deploying and Managing APIs and Integrations

57.

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

What should be done to or with the Mule application to preserve the current vCore usage while still allowing the Mule application to be managed by API Manager?

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

58.

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?

- 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

59.

A Mule application uses the \${http.port} property placeholder for its HTTP Listener port when it is deployed to CloudHub.

What benefit does this Mule application configuration enable?

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

60.

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

What should now be changed in the RAML specification and/or the API proxy to enforce the SLA-based policy?

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

Scoring Table

To receive credit for the question, all answers in the table below must be selected.

SECTION 1		SECTION 2		SECTION 3		SECTION 4	
Q	Ans.	Q	Ans.	Q	Ans.	Q	Ans.
1	A	5	A	10	A	16	A
2	A	6	A	11	A	17	B
3	A	7	A	12	A	18	A
4	A	8	A	13	A	19	A
		9	A	14	A	20	A
				15	A	21	A
SECTION TOTALS							
SECTION 1	/ 4	SECTION 2	/ 5	SECTION 3	/ 6	SECTION 4	/ 6
SECTION PERCENTAGE							
SECTION 1		SECTION 2		SECTION 3		SECTION 4	

SECTION 5		SECTION 6		SECTION 7		SECTION 8	
Q	Ans.	Q	Ans.	Q	Ans.	Q	Ans.
22	A	26	A	32	A	38	A
23	D	27	A	33	A	39	A
24	A	28	A	34	A	40	A
25	A	29	A	35	A	41	A
		30	C	36	A	42	A
		31	A	37	A	43	A
SECTION TOTALS							
SECTION 5	/ 4	SECTION 6	/ 6	SECTION 7	/ 6	SECTION 8	/ 6
SECTION PERCENTAGE							
SECTION 5		SECTION 6		SECTION 7		SECTION 8	

SECTION 9		SECTION 10		SECTION 11		SECTION 12	
Q	Ans.	Q	Ans.	Q	Ans.	Q	Ans.
44	A	49	A	54	A	57	A
45	A	50	A	55	A	58	A
46	A	51	A	56	A	59	A
47	A	52	A			60	A
48	A	53	A				
SECTION TOTALS							
SECTION 9	/ 5	SECTION 10	/ 5	SECTION 11	/ 3	SECTION 12	/ 4
SECTION PERCENTAGE							
SECTION 9		SECTION 10		SECTION 11		SECTION 12	

TOTAL CORRECT ANSWERS: _____ / 60

TOTAL CORRECT ANSWERS %: _____ / 100%

To pass the practice exam, you need a score of at least **70% (42 correct answers)**.

Before attempting the certification exam, review the training for any section where your score was below 70%.