ASSESSEMENT - 04

Agateeswaran K

ACE11689

Task: VFS-File transferring

API Name: VFS_API

Description:

1)Create a rest API to accept XML request, write the request into a file and respond to client.

2)To fetch the record from the specific file location and display the message to the client

Task-01

Steps:

1)Read the request payload using the property mediator.

2)Using VFS parameter write the file into specific location

3)Check the File has created with the record Successfully(file type xml)

Sample Payload Request:

```
<root>
   <Employee>-
      <FirstName>John</FirstName>
      <LastName>Micheal</LastName>
      <Role>Manager</Role>
      <EmployeeId>1112233</EmployeeId>
   </Employee>
</root>
```
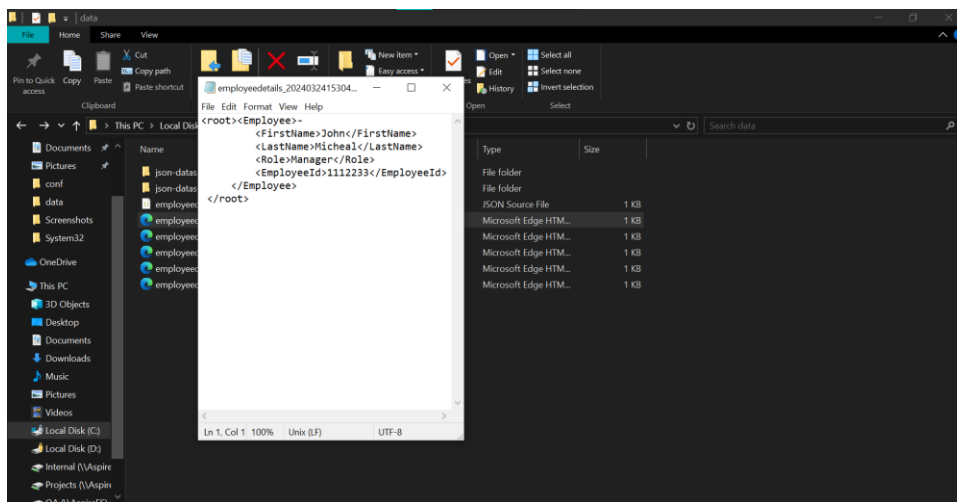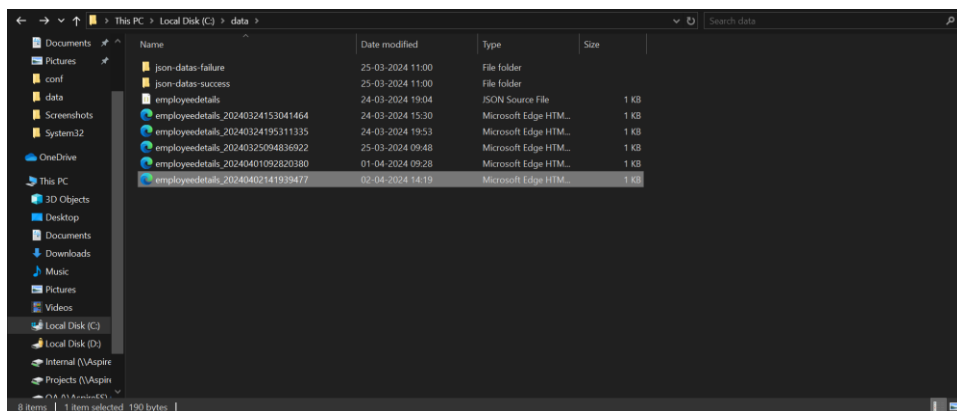
Sample Response (Success):

```
{
   "message": "File processed successfully",
```

}

Code:

```xml
<?xml version="1.0" encoding="UTF-8"?>
<api context="/transfer" name="VFS_API" xmlns="http://ws.apache.org/ns/synapse">
   <resource methods="POST" uri-template="/write">
     <inSequence>
        <property expression="//employee" name="filecontent" scope="default"
type="STRING"/>
        <property expression="fn:concat('C:/data/', 'employeedetails_', synapes:get-
property('SYSTEM_DATE','yyyyMMddHHmmssSSS'), '.xml')" name="filepath"
scope="default" type="STRING"/>
        <enrich>
          <source clone="true" property="filecontent" type="property"/>
          <target type="body"/>
        </enrich>
        <property name="messageType" scope="axis2" type="STRING"
value="application/xml"/>
        <property name="OUT_ONLY" scope="default" type="STRING" value="true"/>
        <header expression="concat('vfs:file:///',get-property('filepath'))" name="To"
scope="default"/>
        <log level="headers"/>
        <log level="full"/>
        <call/>
        <payloadFactory media-type="json">
          <format>
                     {
                             "message":$1
                     }
               </format>
          <args>
            <arg value="File processed successfully"/>
          </args>
        </payloadFactory>
        <respond/>
     </inSequence>
     <outSequence/>
     <faultSequence/>
   </resource>
   </api>
```
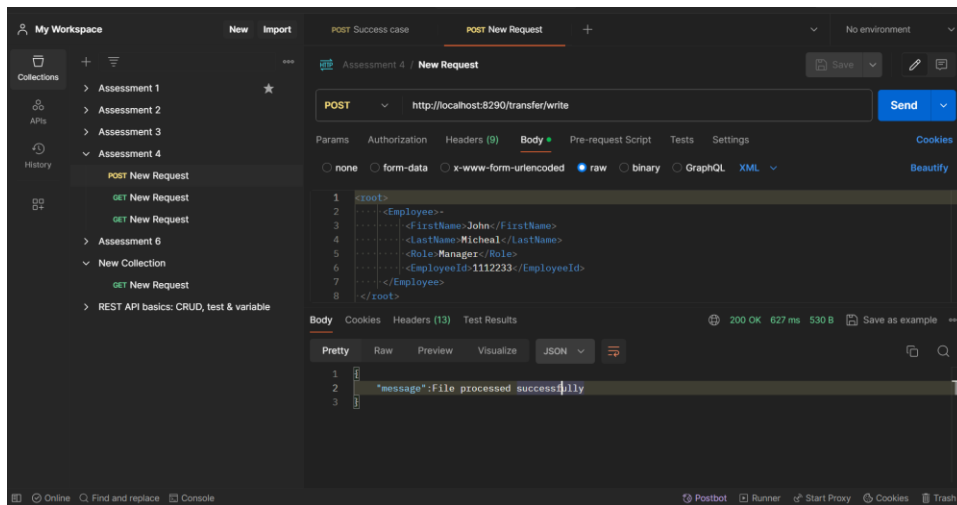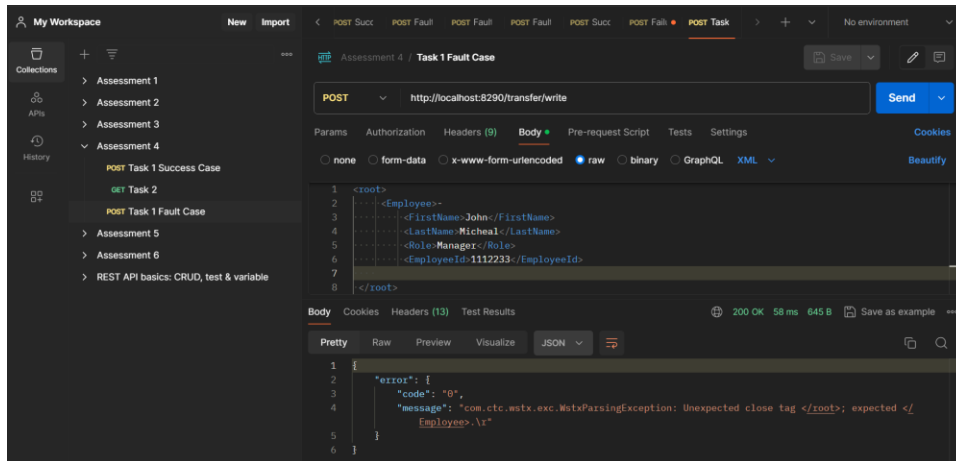

Output:

Success case:

Error Case:

Task-02

Steps:

1)Using VFS parameter read the file from specific location

2)After Read processed move the File to some other location

3)After reading the data successfully then concat the value of FirstName and Lastname print the value in response

Sample file data:

{

"Employee": {

"FirstName": "Wills",

"LastName": "Jack",

"Role": "Associate",

"EmployeeId": "1990"

}

}

Sample Response (Success):

{

```json
  "message": "Data Fectched successfully",

  "processed_data": {

    "FullName": "WillsJack", // Concat(first and lastname)

    "Role": "Associate",

    "EmployeeId": "1990"

  }

}
```

VFS_Proxy.xml

```xml
<?xml version="1.0" encoding="UTF-8"?>
<proxy name="VFS_Proxy" startOnLoad="true" transports="http https vfs"
xmlns="http://ws.apache.org/ns/synapse">
   <target>
     <inSequence>
        <property name="fname" expression="json-eval($.Employee.FirstName)"
type="STRING" scope="default"/>
        <property name="lname" expression="json-eval($.Employee.LastName)"
type="STRING" scope="default"/>
        <property name="role" expression="json-eval($.Employee.Role)" type="STRING"
scope="default"/>
        <property name="employeeid" expression="json-eval($.Employee.EmployeeId)"
type="STRING" scope="default"/>
        <property name="message" value="Data Fectched successfully" type="STRING"
scope="default"/>
        <property name="name" expression="fn:concat($ctx:fname,$ctx:lname)"
type="STRING" scope="default"/>
        <payloadFactory media-type="json">
<format>
{
   "message": $1,
   "processed_data": {
     "FullName": $2,
     "Role": $3,
     "EmployeeId": $4
   }
}
</format>
<args>
<arg evaluator="json" expression="$ctx:message"/>
<arg evaluator="json" expression="$ctx:name"/>
<arg evaluator="json" expression="$ctx:role"/>
```

```xml
<arg evaluator="json" expression="$ctx:employeeid"/>
</args>
</payloadFactory>
<log level="custom">
<property name="message" expression="json-eval($)"/>
</log>
<respond/>
    </inSequence>
    <outSequence/>
    <faultSequence>
       <property expression="get-property('ERROR_CODE')" name="errorcode"
scope="default" type="STRING"/>
       <property expression="get-property('ERROR_MESSAGE')" name="errormessage"
scope="default" type="STRING"/>
       <log level="custom">
          <property expression="$ctx:errorcode" name="errorcode"/>
       </log>
       <log level="custom">
          <property expression="$ctx:errormessage" name="errormessage"/>
       </log>
       <payloadFactory media-type="json">
          <format>
{
   "error": {
      "code": "$1",
      "message": "$2"
   }
}
</format>
          <args>
             <arg evaluator="json" expression="$ctx:errorcode"/>
             <arg evaluator="json" expression="$ctx:errormessage"/>
          </args>
       </payloadFactory>
    </faultSequence>
  </target>
  <parameter name="transport.PollInterval">15</parameter>
  <parameter name="transport.vfs.FileURI">file:///C:/data/</parameter>
  <parameter name="transport.vfs.ContentType">application/json</parameter>
  <parameter name="transport.vfs.ActionAfterProcess">MOVE</parameter>
  <parameter name="transport.vfs.MoveAfterFailure">file:///C:/data/json-datas-
failure</parameter>
  <parameter name="transport.vfs.ActionAfterFailure">MOVE</parameter>
  <parameter name="transport.vfs.FileNamePattern">employeedetails.json</parameter>
  <parameter name="transport.vfs.MoveAfterProcess">file:///C:/data/json-datas-
success</parameter>
</proxy>
```

Output:

[2024-04-23 14:39:39,430] INFO {AuthenticationHandlerAdapter} - User
admin logged in successfully
[2024-04-23 14:40:06,519] INFO {LogMediator} - {proxy:VFS_Proxy} fname
= Wills, lname = Jack, role = Associate, employeeid = 1990, message = Data
Fectched successfully, name = WillsJack
[2024-04-23 14:40:06,528] INFO {LogMediator} - {proxy:VFS_Proxy}
message = {
    "message": Data Fectched successfully,
    "processed_data": {
        "FullName": WillsJack,
        "Role": Associate,
        "EmployeeId": 1990
    }
}

```
 INFO {LogMediator} - {proxy:VFS_Proxy} message = {
                    "message": Data Fectched successfully,
                    "processed_data": {
                        "FullName": WillsJack,
                        "Role": Associate,
                        "EmployeeId": 1990
                    }
                }
```

File has been successfully moved to provided folder location

> This PC > Local Disk (C:) > data > json-datas-success

Name	Date modified	Type	Size
employeedetails	24-03-2024 19:04	JSON Source File	1 KB