# **FREE eBook**

# LEARNING mule

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### **Table of Contents**

About	. 1
Chapter 1: Getting started with mule	.2
Remarks	.2
Examples	.2
Installation or Setup on MS windows OS	.2
Mule flow xml for simple hello example	.2
Basic example to access a database and select all records in the database using anypoint s	3
Chapter 2: Connection to MySQL Database Using Anypoint Studio (Mule)	.4
Introduction	.4
Examples	.4
Example to retrieve Rows from Table in MySQL	.4
Select Rows from MySQL Data Base in Anypoint Studio(Mule)	. 7
Credits	.9



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### Chapter 1: Getting started with mule

#### Remarks

This section provides an overview of what mule is, and why a developer might want to use it.

It should also mention any large subjects within mule, and link out to the related topics. Since the Documentation for mule is new, you may need to create initial versions of those related topics.

#### **Examples**

Installation or Setup on MS windows OS

Detailed instructions on getting mule set up or installed.

- 1. Before going to start with mule we have to insure that java home is set.
- 2. Mule CE runtime don't need installation.
- 3. We have to just unzip the downloaded file and go to bin directory of mule runtime.
- 4. In MS windows Operating system we have to run mule.bat file with admin privilege.
- 5. Mule will deploy default app and up now.
- 6. Now you can manually deploy mule app by just past mule app zip file at app directory of runtime and check log in log directory.

Mule flow xml for simple hello example

```
<?xml version="1.0" encoding="UTF-8"?>
    <mule xmlns:http="http://www.mulesoft.org/schema/mule/http"
xmlns="http://www.mulesoft.org/schema/mule/core"
        xmlns:doc="http://www.mulesoft.org/schema/mule/documentation"
       xmlns:spring="http://www.springframework.org/schema/beans"
xmlns:xsi="http://www.w3.org/2001/XMLSchema-instance"
        xsi:schemaLocation="http://www.springframework.org/schema/beans
http://www.springframework.org/schema/beans/spring-beans-current.xsd
   http://www.mulesoft.org/schema/mule/core
http://www.mulesoft.org/schema/mule/core/current/mule.xsd
   http://www.mulesoft.org/schema/mule/http
http://www.mulesoft.org/schema/mule/http/current/mule-http.xsd">
        <http:listener-config name="HTTP_Listener_Configuration"
           host="0.0.0.0" port="8082" doc:name="HTTP Listener Configuration" />
        <flow name="helloworldFlow">
            <http:listener config-ref="HTTP_Listener_Configuration"
                path="/Hello" allowedMethods="GET" doc:name="HTTP" />
            <set-payload value="Hello #[message.inboundProperties.'http.query.params'.name]"</pre>
doc:name="Set Payload" />
            <logger message="#[message.payloadAs(java.lang.String)]" level="INFO"
doc:name="Logger" />
       </flow>
    </mule>
```

## Basic example to access a database and select all records in the database using anypoint studio

```
<http:listener-config name="HTTP_Listener_Configuration" host="localhost" port="${http.port}"
doc:name="HTTP Listener Configuration"/>
<db:mysql-config name="MySQL_Configuration" host="${db.host}" port="${db.port}"
user="${db.user}" password="${db.password}" database="${db.database}" doc:name="MySQL
Configuration"/>
<context:property-placeholder location="prop.properties"/>
<flow name="Total">
    <http:listener config-ref="HTTP_Listener_Configuration" path="/" allowedMethods="GET"
doc:name="HTTP"/>
    <db:select config-ref="MySQL_Configuration" doc:name="Database">
        <db:select config-ref="MySQL_Configuration" doc:name="Database">
        <db:parameterized-query><![CDATA[SELECT * FROM TableName]]></db:parameterized-query>
    </db:select>
        <json:object-to-json-transformer doc:name="Total"/>
</flow>http://stackoverflow.com/documentation/mule/4147/getting-started-with-mule/28752/mule-
```

flow-xml-for-simple-hello-example#

Read Getting started with mule online: https://riptutorial.com/mule/topic/4147/getting-started-withmule

### Chapter 2: Connection to MySQL Database Using Anypoint Studio (Mule)

#### Introduction

Am new to Mule and wanted to share how to connect to Database and retrieve Values.

### Examples

Example to retrieve Rows from Table in MySQL

Required External Jar: mysql-connector-java-5.1.40-bin.jar to connect to Data Base. Add this jar by right clicking the project -->Build Path--> Add external Archieve. **Create the Flow as Flowing** 

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**2)** Database Connector Configuration: Select MySQL as your database by double clicking the Database connector and fill all the details as mentioned. After that Click Test Connection which will give Connection Successfull...

In Query: Select \* from test.contact where test is my schema and Contact is my table name.

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3)Object to JSON: Drag Object to JSON connector and leave it as it is without any modifications.

4)Set Payload: Drag the Set Payload connector and set the value attribute to #[payload]

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	em-search-index/	2* i 3 "contact id": 1,		
iET	http://localhost:8082/smit/aem/eip-a	4 "telephone": "9160605073",		
	em-search-index	5 "address": "address",		
		7 "name": "Sravan Yadav"		
iET	http://localhost:8082/smit/aem/eip-a	8 },		
	em-search-index/aemdb/parent=all	10 "contact id": 2.		
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SET	http://localhost:8082/smit/aem/eip-a	12 "address": "address", 13 "empil": "http://com/		
SET	http://localhost:8082/smit/aem/eip-a em-search-index/aemdb?parent=all	12"address": "address",13"email": "www.sravan.com",14"name": "Sravan Yadav"		
GET	http://localhost:8082/smit/aem/eip-a em-search-index/aemdb?parent=all &child=aem&subchild=CQ&scope=fu	12 "address": "address", 13 "email": "www.sravan.com", 14 "name": "Sravan Yadav" 15 },		
SET	http://localhost:8082/smit/aem/eip-a em-search-index/aemdb?parent=all &child=aem&subchild=CQ&scope=fu http://localhost:8082/smit/aem/eip-a	<pre>12 "address": "address", 13 "email": "www.sravan.com", 14 "name": "Sravan Yadav" 15 }, 16 * { 17 "contact id": 3.</pre>		
SET	http://localhost:8082/smit/aem/eip-a em-search-index/aemdb?parent=all &child=aem&subchild=CQ&scope=fu http://localhost:8082/smit/aem/eip-a em-search-index/aemdb	<pre>12 "address": "address", 13 "email": "www.sravan.com", 14 "name": "Sravan Yadav" 15 }, 16 * { 17 "contact_id": 3, 18 "telephone": "9160605073",</pre>		
GET GET	http://localhost:8082/smit/aem/eip-a em-search-index/aemdb?parent=all &child=aem&subchild=CQ&scope=fu http://localhost:8082/smit/aem/eip-a em-search-index/aemdb http://localhost:8082/smit/aem/eip-a	<pre>12 "address": "address", 13 "email": "www.sravan.com", 14 "name": "Sravan Yadav" 15 }, 16 * { 17 "contact_id": 3, 18 "telephone": "9160605073", 19 "address": "address", 20 "email": "www.sravan.com"</pre>		
GET GET	http://localhost:8082/smit/aem/eip-a em-search-index/aemdb?parent=all &child=aem&subchild=CQ&scope=fu http://localhost:8082/smit/aem/eip-a em-search-index/aemdb http://localhost:8082/smit/aem/eip-a em-search-index/aemdb?parent=ALL	<pre>12 "address": "address", 13 "email": "www.sravan.com", 14 "name": "Sravan Yadav" 15 }, 16 ~ { 17 "contact_id": 3, 18 "telephone": "9160605073", 19 "address": "address", 20 "email": "www.sravan.com", 21 "name": "Sravan Yadav"</pre>		

Final Step: Deploye the code and run as http://localhost:8089/test

8089 is my port number.. whatever yours u need to give that.

When you run you can see the following output in Json Format

Select Rows from MySQL Data Base in Anypoint Studio(Mule)

**Step1 Message Flow:** [![enter image description here][1]][1]

#### Step 2: Databse Connector Configuration

For this you need **mysql-connector-java-5.1.40-bin.jar**. Right click on Project -->build Path--> Add external archieve and add the jar(without jar it cannot be connected) Enter all the values correctly mentioned below screenshot. Then Click Test connection and should show connection successful

Query: select \* from test.contact

where test =Schema name or database name and contact is table name. [![enter image description here][2]][2]

#### 3) XML view

Use Object to JSON connector and leave the fields as it is

Use setpayload connector and enter the VALUE attribute as #[payload]

[![enter image description here][3]][3]

**Final Step:** Deploye the project , run as mule application. After running.. run the url either in POSTMAN or Chrome. http://localhost:8089/test

8089 is my local port. Whatever u mention run with that port.

[![enter image description here][4]][4]

Finally the Values are displayed in JSON format. Try to run Different Queries.

Am new to Mule. Found informative and posting it. [1]: https://i.stack.imgur.com/jt4tS.png [2]: https://i.stack.imgur.com/oNQJe.png [3]: https://i.stack.imgur.com/EI7U4.png [4]: https://i.stack.imgur.com/taq6z.png

Read Connection to MySQL Database Using Anypoint Studio (Mule) online: https://riptutorial.com/mule/topic/9812/connection-to--mysql-database-using-anypoint-studio-mule-

### Credits

S. No	Chapters	Contributors
1	Getting started with mule	Community, Pranav N Venkit, Ranveer, ssanrao
2	Connection to MySQL Database Using Anypoint Studio (Mule)	Sravan Yadav Lingam