Mulesoft Training

About US:

Vision IT Technologies is an end-to-end Training and recruitment Company, Providing Its Services successfully for last 14 Years and best part is we are able to manage almost 100% Placement record since we started. Vision IT Technologies is an organization which has been established to overcome this crying need of skillful resources. Started by a group of young industry professionals with experience in the best companies of the country, Vision IT Technologies is the one-stop solution for all your knowledge and resource requirements. We train the raw talent available in the market over relevant technologies to make them fit to directly enter the corporate workforce.

About Course:

Mulesoft Training Course is curated by Industry Experts and it covers Web services, APIs, concept of integration. During entire course curriculum we will go through multiple discussions and mocks to become Interview ready after completion of course.

MuleSoft Course Road map – Approx. 30 lectures of 2 hours each.

Curriculum:

Lecture 1: Introduction to Web services, APIs and concept of Integration

- Stand alone applications Vs Web applications
- Difficulties in Point to Point connections
- Need of web services and API led architecture
- Introduction to ESB and How it solves Point-to-Point Integration problem
- Home work – List out various use cases to apply integration
                    Read about criteria to choose integration tool

Lecture 2 : Types of integration and Deep dive into web services and APIs
- Real life examples with short demo of free web services and APIs
- Data integration Vs Application integration.
- Available Integration tools in Market
- Why MuleSoft and the philosophy of MuleSoft Integration.

- <mark>Home work</mark> – Read About competitors of Mulesoft – Dell Boomi, Snaplogic etc.

Lecture 3: Data formats and standards
- Xml – root, attributes, tags
- JSON -key value pair, array of objects
- CSV – delimiters, headers

Lecture 4 : Introduction to Mulesoft- Anypoint platform
- Concept of Orchestration
- Introduction to Any point Platform and Its components
- Mule 3 vs Mule 4
- <mark>Home work</mark> – Read about Mule soft evolution – Mule 2,Mule 3 and Mule 4

Lecture 5 : Rest architecture and Rest APIs, Http format
- HTTP Request and Response with Postman tool.
- Concept of URL and URI, Endpoints, Parameters ,Auth Headers etc.
- Rest Architecture and Restful web services with Examples.
- <mark>Home work</mark> – Study Http success and error codes.

Lecture 6 : API Development lifecycle and RAML
- Development lifecycle of APIs -Create-Test-Deploy-Manage.
- Best practices in designing Experience API, Process API and System API
- Introduction to RAML.
- <mark>Home work</mark> – Study components and properties of RAML

Lecture 7 : Anypoint Design center, API Specification using RAML-Hands on (1)
- Introduction of API Designer
- Creating an API with RAML, the Restful API Modeling Language
- Add request and response details
- <mark>Home work –</mark> Create own RAML for a small API

Lecture 8: Anypoint Design center, API Specification using RAML-Hands on (2)
- Mocking services and API testing.
- Sharing and Publishing the API (Private and Public)
- Anypoint Exchange- Functionality and Advantages.

Lecture 9: Anypoint Studio Introduction
- Anypoint studio Package explorer, Mule Palette,Design canvas,debugger
- Mule flow,sub-flows, mule event, variables,payload,

- Connectors and Processors

Lecture 10: Introduction to Mule projects, Config files and Environments
- Mule Project structure and Environments.
- Configuration files – PoM.xml, Properties,JAR
- Mule Debugger
- <mark>Home work –</mark> Study Maven Project structure
  - Study XML,CSV and JSON format

Lecture 11 : Mule Application Hands on :
- Importing and Scaffolding of RAML into Anypoint Studio
- Creating a Mule Application
- Mule Debugging and Error Handling and logging.

Lecture 12: Introduction to Database systems
- Database systems – concepts of Table,Records,Keys,Views etc.
- SQL,ACID properties, CRUD operation and JDBC connectivity.
- <mark>Home work</mark> – Study Database Normalization Bacis, CODDs Principle, Triggers etc.

Lecture 13 : Introduction to File Systems and file formats
- Introduction to File Systems and file formats
- FTP and SFTP and File Management - Permissions.
- File servers and their connectivity.
- <mark>Home work</mark> – Study file read/write modes, file polling, file permission.

Lecture 14 : System API – Connecting DB and File system with Mule Application - Hands on
- System APIs – Introduction, need and use cases.
- Mule app to read file records and store them in Database
- Database config file and their security using encryption.
- <mark>Home work</mark> – create and upload own database table on free hosting server.

Lecture 15 : Process API – Need and use cases, Logic and Dataweave 2.0
- Concept of Process layer API – Modularity and Reusability, Orchestration
- How to think like a programmer and Logic building
- Message transformation, Flow control, Message Routing
- <mark>Home work</mark> – Practice Dataweave functions on Dataweave Playground with Dummy data

Lecture 16 : Introduction to MEL-Dataweave 2.0 and Dataweave Playground.
- Dataweave 2.0 functions and structure.
- Writing expressions using Dataweave.

- Using Dataweave playground.
- Logic building to transform data.

Lecture 17: Creating Process API and Connecting with System API

- Creating and Publishing the Process layer API.
- Connecting Process layer API with Online Rest APIs
- Consume RESTful web services with and without parameters
- Home work – Connect free web services with your own application

Lecture 18 : Record Processing and Batch Processing

- Synchronous Vs Asynchronous request response.
- Batch creation,Batch steps and Batch completion reports.
- the For Each scope to process items in a collection individually
- the batch job element (EE) to process individual records

Lecture 19 : File polling and watermarking

- Trigger a batch job using a file poller
- Watermarking
  - Automatic Watermarking
  - Manual Watermarking

Lecture 20 : Exception Handling (1)

- What happens when exception happens in a flow
- Describe the different types of exception strategies
- Error Scopes
  - OnErrorContinue
  - OnErrorPropogate
- Handle Errors at application level
- Handle Errors at flow level
- Handle Errors at processor level using try scope

Lecture 21 : Exception Handling (2)

- Create and Raise Custom Errors.
- Map an error to custom error type
- Create and use global exception handlers
- Specify a global default exception strategy
- Home work – Apply exception handling in your own API

Lecture 22 : Advanced topics – Object store, Message Queves, Custom Alerts

- Practical use and scenarios related to Object store.
- Publish – consume / Pub sub model
- Broadcast / Multicast communication – Topic and Queves
- Setting custom email alerts in Mule flows

- <mark>Home work</mark> – Use object store to count number of API users.

Lecture 23 :Munit Testing
- Types of testing, bug mitigation lifecycle
- Generating MUNIT flows from existing flows
- Writing asserts
- Using Mocks, Spys
- <mark>Home work</mark> -create Munit test cases to test your own API

Lecture 24 : Authentication Protocols and methods

- Basic Auth,
- Bearer token
- OAuth 1.0,2.0
- JWT

Lecture 25: API Management

- Mule control plane vs execution plane
- API Autodiscovery
- Security pociLies to API – Rate Limiter, SLA Tiers

Lecture 26: Advanced Topics – Connecting to Salesforce.

- Basic Salesforce topics – Lead, accounts, contacts etc
- Creating salesforce developer account.
- Fetching/posting data into salesforce using Mule flow.

Lecture 27: Code Management and code Repositories
- Code Repositories – Advantages and Functions.
- Creating GIT hub account
- GIT Repo – creation and Maintenance, Commands

Lecture 28 : CI/CD pipeline using Jenkins
- Philosophy of CI/CD – Use case, advantages
- Various CI/CD tools
- Hands on -CI/CD Pipeline using Jenkins for Dev,Test and Prod env.

Lecture 29 : Introduction to Mule Domain Projects / On Prem Deployment

- Understanding Mule Domain projects

- Create Mule 4 Mule Domain project
- Sharing Global configurations across multiple projects using domains

Lecture 30 : Revision and Interview Question Preparation