RUBY ON RAILS

Course Description:

This course describes how to write database-backed Web Applications using the Ruby on Rails (also pronounced RoR, or Rails) Framework. Students are taken through the various steps of creating a full-fledged Web Application. Topics include the MVC paradigm, object relational mapping, fill in forms, sessions, validation techniques, testing, and various other Rails topics.

Course Prerequisites:

Students should have an understanding of web development.

Target Audience:

This course is specially designed for the B.Tech /B.E(CSE/IT/EEE/ECE/Mech) and all other IT related Graduates and Post Graduate students. Mission Professionalism has conquered the job scenario and companies seek for well qualified, professional and skilled manpower. Quality Education and Performance Oriented Training is our motto.

What Student/Professionals Will Learn?

- Download and install Rails along with various other products that allow one to write Rails applications
- Understand the Model, View, Controller paradigm and how this applies to Rails applications
- Understand the directory structure of a Rails application
- Build non-trivial database backed Web Applications
- Understand the ActiveRecord classes and how they wrap database tables
- Understand the interplay between various controller actions and .erb (embedded Ruby) files
- Understand the Create, Read, Update, and Destroy (CRUD) paradigm
- Validate Model data
- Use the Rails console to debug applications

COURSE-CONTENT

Module 1: Introduction

- What is Ruby
- Why ruby
- General purpose of ruby
- Brief History of Ruby
- Where does ruby get its ideas
- Ruby Installation with RVM
- Creating a basic script in ruby
- Sample demo of ruby program

Module 2: RVM (Ruby Version Manager)

- Rvm installation
- Rvm commands
- Rvm Usage

Module 3: Working in LINUX (Ubuntu Platform)

- Basic Linux commands
- File/Directory Permissions
- Changing access rights
- Text Editors used for ROR

Module 4: Ruby Operators & Ruby Shell

- IRB – Ruby Shell
- Working with Ruby operators and expressions
- Numeric Methods
- Rand and Ranges
- Strings, Escaping, Interpolation
- String methods
- Dates and Times

Module 5: Ruby Data types & Variables

- Ruby Data types
- Numbers, Boolean, Strings, Arrays, Hashes, Symbols.
- Types of Variables(Global, Instance, Class, Local, Constant, Pseudo)
- Difference between local & instance variables
- Parallel Assignment
- Variable conditions

Module 6: Ruby methods and modules

- Basic ruby methods
- Return values from methods, return statements
- Class methods
- Different ways to call methods
- Ruby modules and Mixins
- Ruby require and include statement
- Diffence between class and module

Module 7: OOP in Ruby

- OOP

- Class
- The initialize method
- The accessor & setter method
- Access Control
- Class Inheritance
- Method Overriding
- Operator Overloading
- Singleton methods
- Metaclass
- Defining Attributes
- Variable types in Ruby
- Super
- Regular Expressions
- Exceptions
- Conditional operators
- Case Statement

Module 8: Rails Installation and Ruby Gems

- What is Rails
- Full tack Framework
- Rails Strength
- COC(convention over configuration)
- Rails Intallation
- Ruby and Rails installation on linux
- Ruby Gems
- Working with RubyGems
- Gem commands
- Framework Technology
- MVC
- Rails Components
- How does Rails works in MVC

Module 9: Database

- Mysql Introduction
- Installation
- Start/Stop mysql
- Basic Mysql operators

- Creating user and database in mysql

Module 10: Statements

- Creating a Sample Application with Rails
- Rails Installation
- Folder Structure
- Setup the application
- Rake'

RAILS Model, Controller and Views

Module 10: Controller

- What is controller?
- Architecture Diagram for Controller
- Creating a Controller
- Methods and Actions
- Parameters(params)
- Controller Default methods
- Scaffolding
- Routing
- Restful Resources
- CRUD Verbs and Actions
- Filters(Before,After,Around)

Module 11: Models

- What is model
- Active record Basics
- Destroy a model
- Migrations
- Modify, update a model
- Dropping a database
- Association, Validation and callbacks
- Why Association
- Without and wtih Association
- Types of Association
- Active Record validations
- Callbacks & types of callbacks

Module 12: Views

- Embedded ruby
- Working in HAML
- Working with Ajax, Jquery in Rails framework

INTEGER Innovation will provide:

- Training Slides taught during training by trainers
- Programmatic Examples
- Assignments of each topic in a module
- Demos executed during training session.
- Software's and installation guide (for future help)
- E-books for further reading in depth
- Reference links
- 24X7 online support for any queries or doubts.