

Installation of VM WorkStation

Installation of Ubuntu

rbenv

- Installation of rbenv

- Overview of rbenv

- Usage of rbenv

- Managing multiple applications using rbenv

Managing repositories using github

- Github overview

- SSH key generation on local machine

- Usage of SSH key under Github

- Github usage

- Github branch creation and usage

- Github merging operations

- Github pull and push operations

- Git tools(Gitk,Git cola)

RUBY

- Introduction to RUBY

- Environment

- Syntax

- Variables

- Operators

- Comments

- Conditional Statements

  - if

  - if..else

  - if...elsif..else

  - if modifier

  - unless Statement

  - unless modifier

  - case Statement

- Loops

  - while Statement

  - while modifier

  - until Statement

  - until modifier

  - for Statement

  - break Statement

  - next Statement

  - redo Statement

  - retry Statement

  - Methods

  - Blocks

- yield
- Blocks and Methods
- BEGIN and END
- Modules
  - require
  - include
  - Mixins in Ruby
- Strings
- Arrays
  - Built-in Methods
- Hashes
  - Built-in Methods
- Date & Time
  - Current Date and Time
  - components
  - Time.utc, Time.gm and Time.local Functions
  - Timezones and daylight savings time
  - Formatting Times and Dates
  - Time Formatting Directives
  - Time arithmetic
- Ranges
  - Sequences
  - Conditions
  - Intervals
- Iterators
  - each
  - collect
- File I/O
  - puts
  - gets
  - putc
  - print
  - Opening and Closing Files
  - Reading and Writing Files
  - Renaming and Deleting Files
  - File Modes and Ownership
  - File Inquiries
  - Directories in Ruby
  - Built-in Functions
- Ruby Exceptions
  - retry Statement
  - raise
  - ensure

- else

- Catch and Throw

- Class Exception

## RUBY ADVANCED

### Classes

- Instance Variables

- Class Variables

- Global Variables

- Constants

### OBJECT ORIENTED

- class definition

- ruby objects

- initialize method

- instance variables

- accessor & setter methods

- instance methods

- class methods & variables

- to\_s Method

- Access Control

- Class Inheritance

- Methods Overriding

- Operator Overloading

- Freezing Objects

- Class Constants

- Create object using allocate

- Class Information

## RAILS

- File Structure

- Controller and Views and Models

- Routes

- Migration

- Migration Overview

- Creating a Migration

- Creating a Standalone Migration

- Model Generators

- Writing a Migration

- Creating a Table

- Creating a Join Table

- Changing Tables

- Using the change Method

- Using reversible

- Using the up/down Methods

- Reverting Previous Migrations

- Running Migrations
- Rolling Back
- Setup the Database
- Resetting the Database
- Running Specific Migrations
- Running Migrations in Different Environments
- Using Models in Your Migrations

layouts

Partials

Helpers

- Custom Helpers
- Data and time helpers
- Number helpers
- Text Helpers

Forms

- Dates and time helpers
- Form errors
- Form field labels
- Form Helpers
- Form option helpers
- Preventing cross-site request forgery

Associations

- Overview of associations
- Belongs\_to association
- Has\_one association
- Has\_many association
- Has\_many :through association
- Has\_one :through association
- Has\_and\_belongs\_to\_many association
- Polymorphic association

Data Validation

- Validations Overview
- Why Use Validations?
- When Does Validation Happen?
- Skipping Validations
- valid? and invalid?
- errors[]
- Validation Helpers
- acceptance
- validates\_associated
- confirmation
- exclusion
- format

inclusion  
length  
numericality  
presence  
absence  
uniqueness  
validates\_with  
validates\_each  
Common Validation Options  
:allow\_nil  
:allow\_blank  
:message  
:on  
Conditional Validation  
Conditional Validation  
Using a Symbol with :if and :unless  
Using a String with :if and :unless  
Using a Proc with :if and :unless  
Grouping Conditional validations  
Combining Validation Conditions  
Performing Custom Validations  
Custom Validators  
Custom Methods  
Working with Validation Errors  
errors  
errors[]  
errors.add  
errors[:base]  
errors.clear  
errors.size  
Displaying Validation Errors in Views  
CRUD  
Create\_action  
Read\_action  
Update\_action  
Delete\_action  
CRUD USING SCAFFOLDING  
Create\_action  
Read\_action  
Update\_action  
Delete\_action  
Rails console  
Action mailers

Configuring smtp setting for development

Mailer methods and usage

Custom html templates for mailing

Mailers as a background process