Ruby On Rails Training Plan

3 Days

- Introduction to RoR
- Installation
  - https://rvm.io/rvm/install
- Getting started with RoR:
  - https://guides.rubyonrails.org/getting_started.html
  - https://www.railstutorial.org/book

5 Days

Ruby:

- Ruby Fundamentals:
  - https://app.pluralsight.com/library/courses/ruby-fundamentals/table-of-contents
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- Topics to Cover:
  1. Data types(Numbers, String, Boolean, Symbols, Array, Hashes)
  2. Variables & Assignment, Operators, Scope
  3. Objects, Classes, Methods
  4. Writing Classes
     a. Inheritance
     b. Method overriding
     c. Access controls
  5. Writing Methods
  6. Modules/Mixins
  7. Blocks, Proc
  8. File handling
  9. Exceptions
  10. Logging
  11. Regular Expression
  12. Array/Hash/String methods:
      a. https://docs.ruby-lang.org/en/2.0.0/Array.html
      b. https://docs.ruby-lang.org/en/2.0.0/Hash.html
  13. Multithreading

  Reference links:

  1. Ruby doc: https://ruby-doc.org/core-2.3.0/
  2. http://rubylearning.com/satishtalim/tutorial.html
  3. http://ruby-for-beginners.rubymonstas.org/index.html

5 Days

Rails:

- Rails fundamentals:
  - https://app.pluralsight.com/library/courses/ruby-rails-4-getting-started/table-of-contents
- Topics to cover:
  - MVC Basics
  - Folder structure
  - Configurations
  - Models: ActiveRecord-
    i. Models
    ii. Migrations
    iii. Validations
    iv. Callback
  - Views
    i. Action View
    ii. Layouts & Rendering
    iii. Helpers
  - Controllers
    i. Action Controller
    ii. Rails routing
  - Action Mailer, Active Jobs
  - Rake tasks
  - Rails Concerns
  - Asset pipeline
  - TDD- Rspec
  - Caching
  - Consuming third-party APIS

    Reference Links-
      - https://guides.rubyonrails.org/v5.0/
      - https://www.railstutorial.org/book

Gems to Explore:

1. Device
2. cancan
3. sidekiq
4. kaminari
5. paperclip, CarrierWave
6. redis
7. httparty
8. whenever

Assignment 1:

1) Read a csv file into an array of hash

each csv record contains employee details, ex: code, name, age, dept(can be finance, hr, tech), experience, joining_date

each hash in the array will have emp attributes as their keys

2) Print details of each employee

3) Find the max age of the employee

4) Print employee details who have joined in last 6 months

5) print experience verdict with each emp(if expi is 0 to 6 months- fresher, 6 months to 24 months- beginner, bet 2 to 4 years- implementer, 3+years- expert)

6) Print dept wise employees

Note: make use of methods, required control flows, arrays, hashes, date

Assignment 2:

Write a program that takes input keywords and returns the top 50 google search results matching the keywords.
Of the links returned Display the
      Title of the page
      Domain Name
      Registry Domain ID
      Creation Date of the domain (UTC & IST)
      Updated Date of the domain (UTC & IST)
Implement a custom logger to log additional debug information and warn messages to a file on disk.
Display the link of the URL through the log.

Follow the MVC Architecture & ensure you write test cases

References
https://github.com/wiseleyb/google_custom_search_api
https://github.com/weppos/whois

MVC Architecture
Singleton design pattern
Value Objects
Adapter design pattern
Template design pattern

Assignment 3:

Write a object oriented program to simulate a simple banking system where users can send and withdraw money to and from each other. All transaction should be written to a file (xml or json based on input from the user).

- Use classes objects modules, OOPs Concept
- JSON / XML to store the data
- Exception Handling