

Web Engineer Course Curriculum

(Job achievement program)

Total learning time: 750 hours or more

full-time 120days 8 hours or more per day

Introduction

Before starting with Ruby on Rails, you will learn the basics of programming. By starting with HTML, CSS, JavaScript, Git, SQL, etc., we will solidify the basics of programming and prepare you to get ready to use Ruby on Rails.

HTML・CSS

40h  5day

You will learn basic grammar of HTML and CSS, and you will be able to create pages from specification diagrams.

HTML・CSS(Basic grammar, website production practice, etc.)

task CSS implementation similar to the inquiry form and sample site

Git・GitHub

10h  1day

You will be able to manage source codes by learning Git and GitHub

Git command, branch system, conflict resolution etc

JavaScript

65h  8day

You will be able to create dynamic sites using JavaScript and jQuery.

JavaScript(Basic grammar, judgment program development practice, etc.)

DOM operation(Node acquisition / operation event setting, etc.)

jQuery(Event handler, traverse, manipulation etc)

task Scoring form creation

Ruby series

65h  8day

You will learn the basics of programming and the basics of algorithms, object orientation, and you will be able to practice on your own PC console

Ruby(Basic grammar, functions, blog application development, etc.)

Algorithm(Algorithm implementation based on flowchart, etc.)

Data structure(Linear search, selective sort, bubble sort, Quick sort, recursive processing, etc.)

Object-orientation(Classes and instances, constructors, etc.)

Environment(Ruby installation, Gitbash, Linux etc)

task Janken game development and code reading

RDBMS・SQL

10h  1day

You will learn about relational database concepts and use SQL to manipulate the database.

Read from csv file using SQL and manipulate data / table Bonding etc

task paiza challenge

Web technology

10h  1day

Understand the mechanism and have an image of Web application by learning the flow of request-response and linkage with DB using Ruby.

IP address, request response, database operation from Ruby Simple application development using Webrick, etc.

task Application development to operate the DB according to the request

Basic Studies

You can use Ruby on Rails to implement universal functionality and be able to build your own web application.

Ruby on Rails Introductory

65h  8day

You will learn the rules and usage of Ruby on Rails, and you will become able to create mock-ups for web applications.

Ruby on Rails(Basic grammar, ActiveRecord, debugging practice, Contact function / implementation practice etc)

task Twitter clone development

Active Record

5h  1day

By learning ActiveRecord, you will be able to perform DB operations using Ruby language.

DB operation through ActiveRecord, etc.

Heroku

5h  1day

You will be able to deploy web application with Heroku.

Application deployment practice using Heroku, Asset precompilation etc

Local environment construction

5h  1day

Learn how to set up a Ruby on Rails development environment on your own computer, and become able proceed with development on your own computer

Build a development environment using Homebrew, rbenv, ruby-build, Installation of tools required for development (Windows user) virtualBox, Vagrant

Ruby on Rails (basics)

70h  9day

You will be able to develop applications that implement basic functions such as login systems and email transmission functions from applications.

Bootstrap(Response design implementation etc)

Login system(Secure password, session and cookies, Validation, error messages, etc.)

Introduction to security

Association(Many-to-many association implementation etc)

ActionMailer(SMTP server construction, SendGrid, Heroku add-on etc)

Exception handling(Implementation of error page etc)

Seed data

Image upload implementation

task Facebook clone development
Instagram clone development
technical interview subject of Mofmof Inc.

Job achievement

By addind to the tools and most used development cycles, You will acquire the knowledge and required technology for professional engineers

Practical training

By working on the teaching materials used by Manyo Co., Ltd.(Ruby on Rails Trustee) in training for newcomers, you will accurately grasp the minimum required level On the work site.

80h full 10day

RSpec(Test Driven Development Practice Using Queries)
Asynchronous communication using Ajax
One-to-one message function implementation
ER diagram
Callback implementation
Creation of validation class
Active Job(Implementation of asynchronous processing)
Gem implementation(Implement devise based on reference)
OAuth(Implementation of login function using Google API)
Refactoring

task working on the teaching materials used by Manyo Co., Ltd.(Ruby on Rails Trustee) in training for newcomers

Web Technology Practice

Understand how to define non-RESTful routing and security.

25h full 3day

task Ruby on Rails application development using Nginx
Ruby on Rails application development using GraphQL
Avoiding attack methods

Vue.js Series

You will become able to develop applications using Ruby on Rails and Vue.js.

30h full 4day

task Questionnaire page creation using Vue.js
Make a page created in Vue.js into a Ruby on Rails application
Incorporate

Simulation Project Team Development

You will be able to do team development.

50h full 6day

task Develop according to the issue of the application under development on GitHub
Batch processing, test implementation
Using tools (Docker,bugsnag,Re:dash,Mackerel, etc)

AWS environment construction

You will be able to build and deploy AWS.

10h full 1day

Automatic deployment using Capistrano.
Image upload to S3 server
Environment construction of EC2 instance

task Deployment practice

Source code reading

You will become able to actually read and implement gem's

10h full 1day

task Doing gem source code reading and implement the function of API linkage.

Original application

Create a portfolio that can showcase your skills.

150h full 17day

task Requirement definition, table definition, ER diagram, screen transition diagram, wire frame practice
Original application development