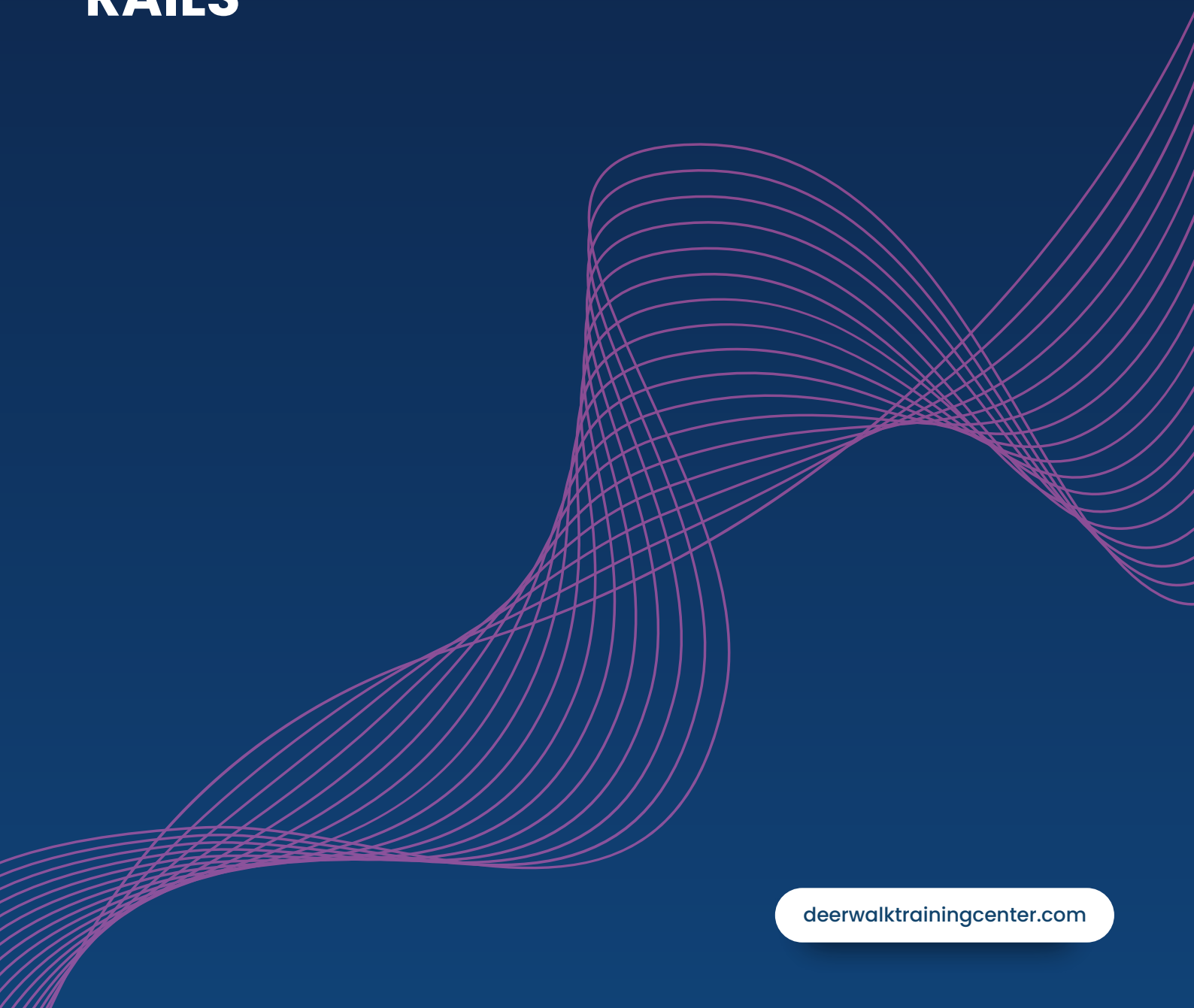
deerwalk
training center

DTI-PSD-108

APPLIED RUBY PROGRAMMING

With

RAILS



deerwalktrainingcenter.com

Program Information

Nature of the Course
Theory + Practical

Total Hours per Day
2 hours

Course Duration
80 Hours

Course Summary

This course is designed for individuals interested in web development and aims to provide a solid foundation in using Ruby on Rails to build web applications. Students will learn the fundamentals of Ruby, the Rails framework, and web development best practices.

Course Details

Module 1

Introduction to Ruby

- Overview of Ruby and its syntax
- Variables, data types, and basic operations
- Control structures (if statements, loops)
- Methods and functions
- Object-oriented programming in Ruby

Module 2

Introduction to Rails

- What is Ruby on Rails?
- Setting up the development environment
- Creating a new Rails application
- The MVC (Model-View-Controller) architecture

Module 3

Building a Simple Application

- Creating models, views, and controllers
- Routing and RESTful routes
- CRUD operations in Rails
- Working with forms

Module 4

Working with Databases

- Introduction to databases
- Using ActiveRecord to interact with the database
- Migrations and database schema
- Data validation and associations

Module 5

Views and Layouts

- ERB (Embedded Ruby) templating
- Layouts and partials
- Asset pipeline (CSS and JavaScript)
- Working with forms and form helpers

Module 6

Authentication and Authorization

- User authentication with Devise or other gems
- Role-based access control
- Securing routes and actions

Module 7

Testing in Rails

- Introduction to testing (TDD and BDD)
- Writing and running tests with RSpec or MiniTest
- Integration and acceptance testing

Module 8

Working with APIs

- Consuming external APIs
- Building API endpoints in Rails
- Authentication and authorization for APIs

Module 9

Deployment and Scaling

- Preparing the application for deployment
- Hosting options (e.g., Heroku)
- Scaling considerations

Module 10

Advanced Topics (Optional)

- Advanced Rails features (e.g., background jobs, caching)
- Real-time features with WebSockets
- Performance optimization

Module 11

Building a Complete Project

- Students work on a larger project, applying the knowledge and skills acquired throughout the course.

Module 12

Final Project and Presentation

- Students present their final projects to the class.

deerwalk
training center

Sifal, Kathmandu, Nepal
Phone: +977 - 01 - 5913021 | 4567153
Mobile: +977 - 9765355167 | 9860422021
Email: training@deerwalkcompware.com
Website: deerwalktrainingcenter.com