Shiny for R Web Applications Training Course

Professional Development Training Course Outline

Category	Research and Data Analysis	**Duration**	5 Days
Base Fee	$1,500 USD	**Delivery Mode**	Online / On-site Hybrid

Course Introduction

Unlock the power of interactive web applications with Shiny for R, the leading framework for creating dynamic dashboards, real-time data visualizations, and enterprise-ready analytics solutions. Shiny for R Web Applications Training Course equips data scientists, analysts, and developers with the skills to transform raw datasets into interactive web applications that drive insights and business decisions. Participants will gain expertise in building responsive, scalable, and user-friendly R Shiny applications, integrating advanced data visualization, and leveraging reactive programming to enhance user engagement.

In today's data-driven world, organizations demand professionals who can bridge the gap between data analysis and actionable insights. Our Shiny for R course emphasizes practical implementation, real-world case studies, and trending analytics techniques to ensure participants not only understand the concepts but can immediately apply them in business intelligence, healthcare analytics, finance, marketing, and AI-driven reporting. By the end of this training, participants will be capable of designing interactive dashboards, data-driven apps, and cloud-deployed solutions that elevate decision-making capabilities.

Programme Curriculum

Shiny for R Web Applications Training Course

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Course Duration

5 days

Course Objectives

1. Master Shiny framework fundamentals and reactive programming concepts.
2. Build interactive dashboards for data visualization and analysis.
3. Implement dynamic UI/UX components for enhanced user engagement.
4. Integrate real-time datasets from CSV, SQL, and APIs.
5. Utilize ggplot2, plotly, and highcharter for advanced data visualization.
6. Deploy Shiny apps on Shiny Server, RStudio Connect, and cloud platforms.
7. Apply data cleaning and transformation best practices in Shiny apps.
8. Implement user authentication, security, and role-based access control.
9. Optimize app performance and scalability for enterprise deployment.
10. Develop interactive filters, widgets, and inputs for customized reporting.
11. Apply best practices for UI/UX design in Shiny applications.
12. Integrate AI/ML models and predictive analytics into Shiny apps.
13. Analyze real-world case studies across finance, healthcare, and marketing.

Target Audience

1. Data Scientists & Data Analysts
2. Business Intelligence Professionals
3. R Programmers & Developers
4. Marketing & Sales Analysts
5. Financial Analysts
6. Healthcare Analysts & Epidemiologists
7. Product Managers & Decision-Makers
8. Academic Researchers & Students in Data Analytics

Course Modules

Module 1: Introduction to Shiny

- Overview of Shiny framework & ecosystem
- Structure of Shiny apps
- Reactive programming concepts
- Installing and configuring Shiny
- **Case Study:** Building a simple interactive dashboard

Module 2: UI Components & Layouts

- Creating dynamic UI with fluidPage & navbarPage
- sliders, inputs, selectors, and tables
- Conditional panels and dynamic UI elements
- Integrating themes and custom CSS
- **Case Study:** Dashboard for sales performance

Module 3: Data Visualization in Shiny

- Plotting with ggplot2, plotly, and highcharter
- Creating interactive charts and graphs
- Customizing charts with colors, legends, and tooltips
- Handling large datasets efficiently
- **Case Study:** Visualizing financial KPIs

Module 4: Reactive Programming

- Reactive expressions vs observers
- Event-driven programming in Shiny
- Debugging reactive dependencies
- Optimizing app responsiveness
- **Case Study:** Real-time stock price dashboard

Module 5: Data Integration

- Importing data from CSV, Excel, and databases
- Connecting APIs for live data feeds
- Data cleaning and transformation
- Handling missing data in Shiny apps
- **Case Study:** Healthcare patient analytics dashboard

Module 6: Advanced Shiny Features

- User authentication & role-based access
- Modular programming for scalable apps
- Custom JavaScript integration
- Notifications, alerts, and progress indicators
- **Case Study:** HR employee performance monitoring app

Module 7: Deployment & Cloud Integration

- Deploying apps on Shiny Server & RStudio Connect
- Cloud deployment on AWS, Azure, and GCP
- Version control with Git & GitHub integration
- Monitoring and logging application usage
- **Case Study:** Marketing analytics dashboard deployed on cloud

Module 8: AI/ML Integration & Best Practices

- Integrating predictive models in Shiny apps
- Scenario analysis and simulations
- Performance optimization & profiling
- UI/UX best practices for dashboards

- **Case Study:** Predictive sales forecasting application

Training Methodology

This course employs a participatory and hands-on approach to ensure practical learning, including:

- Interactive lectures and presentations.
- Group discussions and brainstorming sessions.
- Hands-on exercises using real-world datasets.
- Role-playing and scenario-based simulations.
- Analysis of case studies to bridge theory and practice.
- Peer-to-peer learning and networking.
- Expert-led Q&A sessions.
- Continuous feedback and personalized guidance.

Register as a group from 3 participants for a Discount

Send us an email: info@fineskilltrainingcenter.org or call *+254769199797*

Certification

Upon successful completion of this training, participants will be issued with a globally- recognized certificate.

Tailor-Made Course

We also offer tailor-made courses based on your needs.

Key Notes

a. The participant must be conversant with English.

b. Upon completion of training the participant will be issued with an Authorized Training Certificate

c. Course duration is flexible and the contents can be modified to fit any number of days.

d. The course fee includes facilitation training materials, 2 coffee breaks, buffet lunch and A Certificate upon successful completion of Training.

e. One-year post-training support Consultation and Coaching provided after the course.

f. Payment should be done at least a week before commence of the training, to Fineskill Training Center account, as indicated in the invoice so as to enable us prepare better for you.

Upcoming Scheduled Sessions

Start Date	End Date	Location	Price

23 Nov 2026	27 Nov 2026	Online	$1,000
23 Nov 2026	27 Nov 2026	Physical	$1,500
23 Nov 2026	27 Nov 2026	Physical	$3,000
23 Nov 2026	27 Nov 2026	Physical	$3,000
23 Nov 2026	27 Nov 2026	Physical	$6,000
23 Nov 2026	27 Nov 2026	Physical	$4,500
23 Nov 2026	27 Nov 2026	Physical	$6,000
23 Nov 2026	27 Nov 2026	Physical	$6,000

Ready to enroll or request a customized program? Book online or contact us:

Register Online Now

Email: info@fineskilltrainingcenter.com | Website: www.fineskilltrainingcenter.com