

Play Framework Programming

Audience Course Play Framework Programming

The course Play Framework Programming is intended for experienced developers who want to use the Play Framework for the creation of Web Applications and Web Services.

Prerequisites course Play Framework Programming

Knowledge of and experience with Java, C# or Scala is required to participate in this training.

Realization Training Play Framework Programming

The theory is discussed on the basis of presentation slides. Demos are used to clarify the theory. There is ample opportunity to practice and theory and exercises are interchanged. The course material is in English. Course times are from 9.30 to 16.30.

Certification course Play Framework Programming

After successful completion of the course the participants receive an official certificate Play Framework Programming.

Content Course Play Framework Programming

In the course Play Framework Programming participants learn to develop web applications based on the Model View Controller design pattern and using the JVM language Scala. The Play Framework is open source and increases the productivity of developers by using convention over configuration, hot code reloading and error messages in the browser.

Intro Play Framework

The course starts with a discussion of the Play Framework architecture. Also discussed is the use of the build and dependency management tool sbt and the command line utility giter8 with which files and directories are generated based on templates.

MVC Model

Next the MVC architecture is discussed and how in Play control flow, data presentation and data storage are realized. Attention is also paid to dynamic URLs and scoped objects in session and flash scope.

Views and Templates

The view in Play web applications is typically based on a template. Attention is paid to the operation of the Scala based template engine and the possible control flow constructs and variables in templates.

Concurrency

Then it's time to handle asynchronous calls and concurrency with multiple threads. The Akka Framework which is ideally suited for concurrent and distributed applications on the JVM, is therefore discussed as well.

Web Services

The course program also treats consuming Web Services in Play. The parsing of JSON data and the parsing of XML data with JAXB and Akka streaming is also explained.

Data Access

Furthermore data access from Play is treated. Object Relational Mapping and both Ebean queries and Rawsql queries are discussed.

Deployment

Finally after an overview of how to create your own Play modules, attention is paid to the deployment of Play Applications on an Apache or Nginx web server.



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Modules Course Play Framework Programming

Module 1 : Play Framework Intro	Module 2 : Build System	Module 3 : MVC Model
What is Play?	Scala Build Tool	MVC Architecture
Play Architecture	Core Principles	Separation of Concerns
Play Versions	Benefits of sbt	Control Flow
Installing Play	Using sbt	Data Presentation
sbt and conscript	SBT Commands	Data Storage
Installing Giter8	Setting Definition	HTTP Storage
Setting Up Play	Resolvers	Static Definition
Project Directories	sbt Plugins	Dynamic URL Parts
Configuration	Application Settings	Passing Fixed Values
Controller and View	Error Handlers	Optional Parameters
Testing Views	Client Errors	Scoped Objects
Testing Controllers	Server Errors	Session and Flash Scope
Module 4 : Views and Templating	Module 5 : Concurrency	Module 6 : Web Services
General Template	Executors	Consuming Web Services
Composite View	Runnable and Callables	REST API's
Special @ Character	Asynchronous Programming	JSON Payloads
Comments	Scheduled Jobs	Callback Methods
Template Parameters	Configuring Jobs	Handling JSON
Import Statement	Akka Framework	JSON Request and Response
Conditions	Actors	Simple XML Parsing
Iterating Lists	Actor System	Parsing with JAXB
Iterating Maps	Message Flows	Large Responses
If Blocks	Fault Tolerance	Source and Sinks
Escaping Dynamic Contents	Scalability	Akka Streaming
Module 7 : Data Access	Module 8 : Play Modules	Module 9 : Deployment
SQL Database Support	What are Modules?	Action Composition
Object Persistence	Creating Modules	Filters
Object Relational Mapping	Module Configuration	Configuring Cache
ORM Concepts	Module Contract	Cache API
Relationships	Module Injection	Deployment on Apache
Persistence API	Publishing Modules	Enabling SSL
Ebean Queries	Play Repository	mod proxy Load Balancer
Query Constructs	Third Party Modules	Nginx Event Architecture
Using Rawsql	Popular Modules	Configure Play on Nginx

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