

# Introduction to the JavaServer Faces API («JEE04»)

This course provides an introduction to the practical use of JavaServer Faces (JSF) in web applications.

**Duration:** 2 days

**Price:** 1'400.–

## Content

1. Basics
  - JSF Application Life Cycle
  - JSF Phases
  - Model/View/Controller (MVC) architecture pattern
2. Web applications
  - texture
  - Class `javax.faces.webapp.FacesServlet`
  - Deployment Descriptor
  - annotation
  - Web Archive (WAR)
3. Facelets
  - View Declaration Language (VDL)
  - Facelet Tag Libraries
4. User Interface Components
  - Type hierarchy
  - Class `javax.faces.component.UIComponent`
  - Class `javax.faces.component.UIForm`
  - Class `javax.faces.component.UIInput`
  - Class `javax.faces.component.UICommand`
  - Class `javax.faces.component.UIData`
5. HTML Rendering Tag Library
  - categories
  - Input Tags
  - Selection Tags
  - command tags
  - Link Tags
  - output tags
  - Data Table Tags
  - Layout Tags
  - Fragment Tags
  - error tags
6. Faces Core Tag Library
  - categories
  - Parameter Tags
  - Attributes Tags
  - Facet Tags
  - Localization Tags
  - Event Handling Tags
  - Conversion Tags
  - Validation Tags
7. Managed beans
  - JSF Bean
  - CDI bean
  - scope

- Interface `javax.enterprise.conext.Conversation`
- 8. Unified Expression Language (EL)
  - syntax
  - Implicit Objects
  - operators
- 9. Navigation
  - Implicit Navigation
  - Navigation Model
  - redirecting
  - bookmarking
  - View Parameters
  - flash
- 10. Messages
  - resource bundle
  - internationalisation
- 11. Conversion
  - Data Conversion Model
  - standard converter
  - special converter
  - Interface `javax.faces.convert.Converter`
  - conversion error
- 12. Validation
  - Data Validation Model
  - standard validator
  - validation method
  - default validator
  - special validator
  - Interface `javax.faces.validator.validator.validator`
  - validation errors
- 13. Bean Validation
  - standard restriction
  - special restriction
  - constraint error
- 14. Data tables
  - visualization
  - sorting
  - pagination
  - Class `javax.faces.model.DataModel`
  - Class `javax.faces.model.arrayDataModel`
  - Class `javax.faces.model.iterableDataModel`
  - Class `javax.faces.model.CollectionDataModel`
  - Class `javax.faces.model.ListDataModel`
  - Class `javax.faces.model.ResultDataModel`
  - Class `javax.faces.model.ResultSetDataModel`
  - Class `javax.faces.model.ScalarDataModel`
- 15. Asynchronous
  - asynchronous life cycle
  - AJAX Day
  - JavaScript API
- 16. Event handling
  - Event Processing Life Cycle
  - event types
  - Class `javax.faces.event.FacesEvent`
  - Interface `java.util.EventListener`
  - Interface `javax.faces.event.FacesListener`
  - Interface `javax.faces.component.ActionSource`

- Class javax.faces.event.ActionEvent
- Interface javax.faces.event.ActionListener
- Interface javax.faces.component.ValueHolder
- Interface javax.faces.component.EditableValueHolder
- Class javax.faces.event.ValueChangeEvent
- Interface javax.faces.event.ValueChangeListener
- Class javax.faces.lifecycle.lifecyle.class
- Class javax.faces.event.PhaseId
- Class javax.faces.event.PhaseEvent
- Interface javax.faces.event.PhaseListener
- Class javax.faces.event.SystemEvent
- Interface javax.faces.event.SystemEventListener

#### 17. Facelets Templating Tag Library

- categories
- Template Tags
- Custom Component Tags
- utility tags
- View Include
- view template
- View Decorator
- View Debugging
- View Iteration

#### 18. Composite Components Tag Library

- categories
- Interface Tags
- Implementation Tags
- composite component

## Key Learnings

- Introduction to the JavaServer Faces (JSF) API specification
- Practical use of JavaServer Faces (JSF)

## Target audience

This course is aimed at application developers who want to use JavaServer Faces (JSF) in web applications.

## Requirements

Several months of practical experience in application development with Java and/or completion of the previous course:

- [Introduction to the JavaServer Pages API \(«JEE03»\)](#)

## Further courses

- [Introduction to RESTful Webservices with JAX-RS and JSON \(«JEE05»\)](#)

## Any questions?

We are happy to advise you on +41 44 447 21 21 or [info@digicomp.ch](mailto:info@digicomp.ch). You can find detailed information about dates on [www.digicomp.ch/courses-](http://www.digicomp.ch/courses-)

