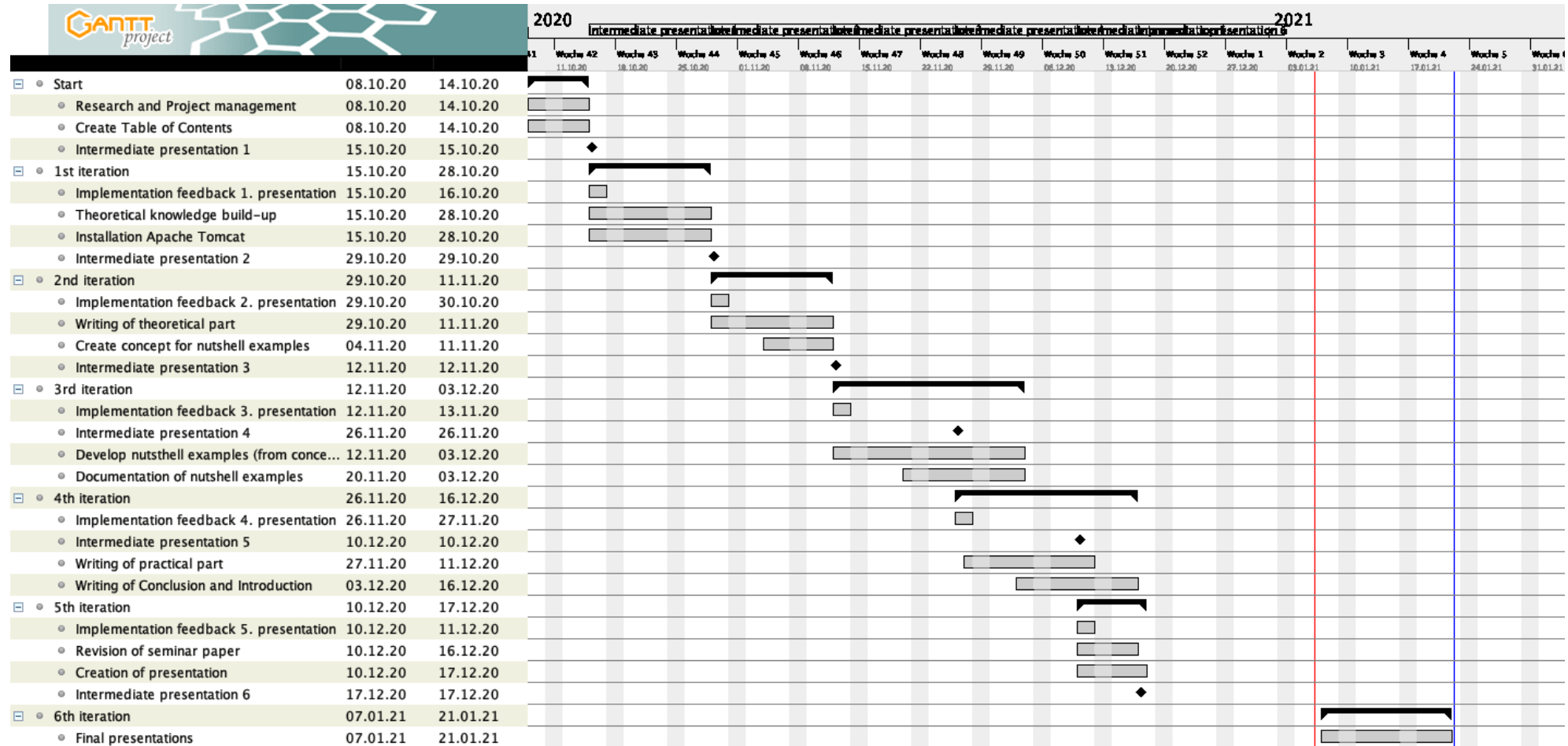


# Apache Tomcat Cookbook (Nutshell Examples)

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Marion Tomes

# Gantt-Diagramm



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PHP

Tag Libraries



## Application of nutshell examples

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# Introduction

## Objectives

- Possible implementation for Groovy and PHP
- Set up development environment (for testing and appliance)
- Outlook

## Methodology

- Literature review
- Practical installation guide
- In-depth literature review

## Structure

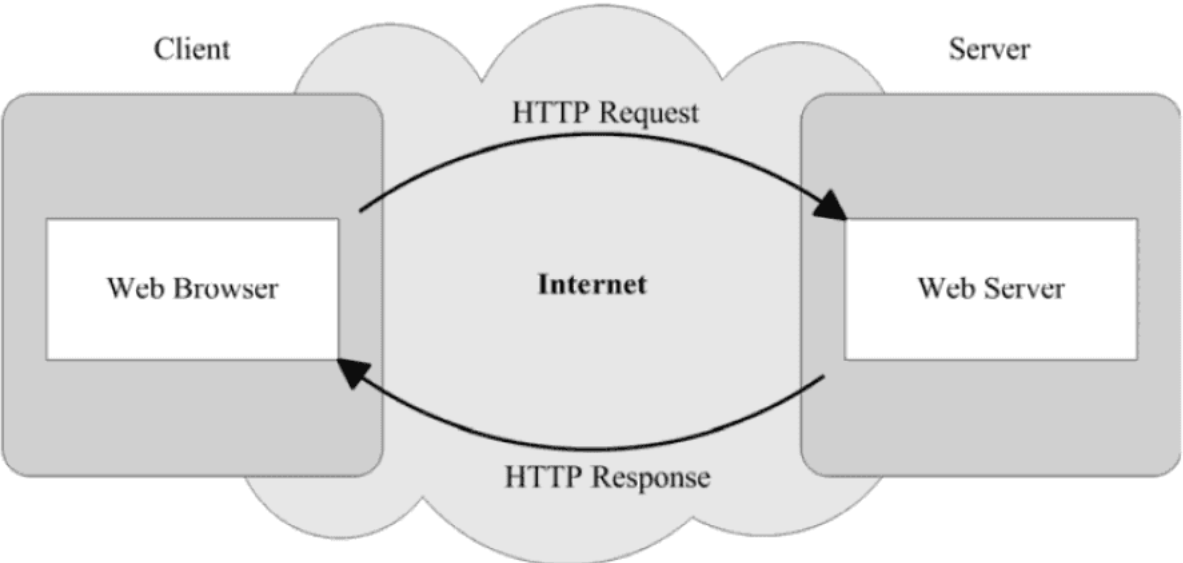
- Theoretical background
- Installation guideline
- Nutshell examples
- Conclusion

# Apache Tomcat

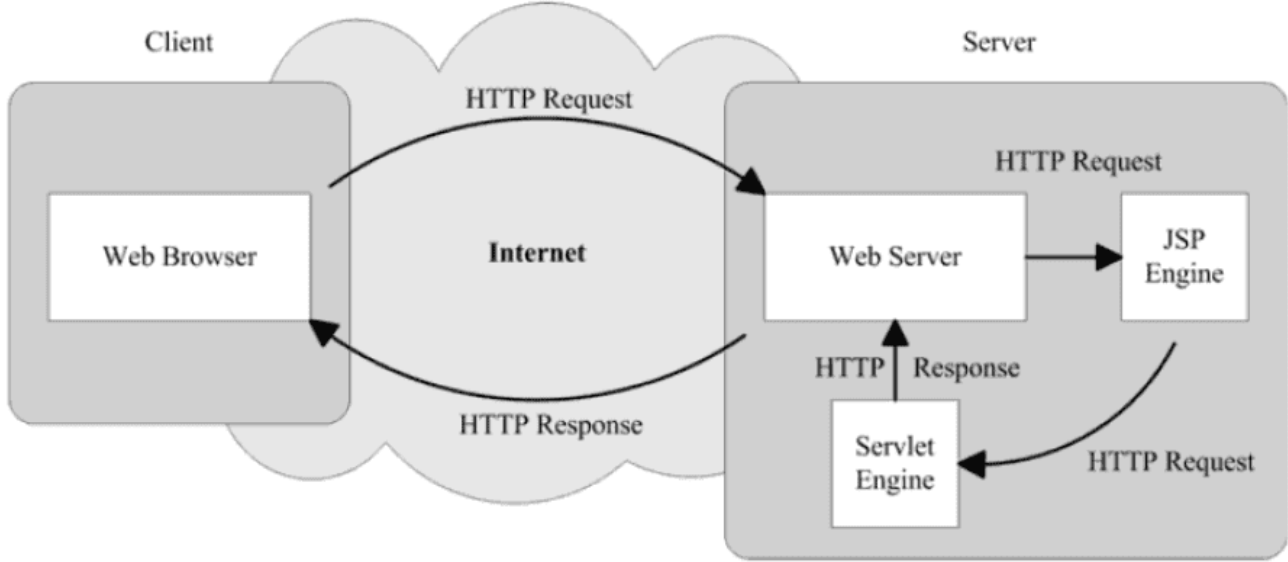
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- Web server
- Open-source
- Used for applications using Java Server Pages (JSP)

Lightweight Application	Open Source	Stability
<ul style="list-style-type: none"><li>- Easy deployment</li><li>- Fast-loading times</li></ul>	<ul style="list-style-type: none"><li>- High degree of freedom for developers</li></ul>	<ul style="list-style-type: none"><li>- Web server runs independent of Apache installation</li><li>- Error of Tomcat would not cause disfunction of other servers</li></ul>



(Zambon, 2012)



(Zambon, 2012)

# Java Server Pages (JSP)

Dynamical web pages/content

# Apache Groovy

- Scripting language
- 100% compatible with Java
  - Pre-imported classes
  - Extra keywords (e.g. def, as, if)
- Frameworks based on Groovy:
  - Grails
  - Gradle

# PHP

- Scripting language
- Integrate in HTML for web scripting
- Server-side scripting
  - Access PHP output with web browser
  - Processed on server where HTML is created

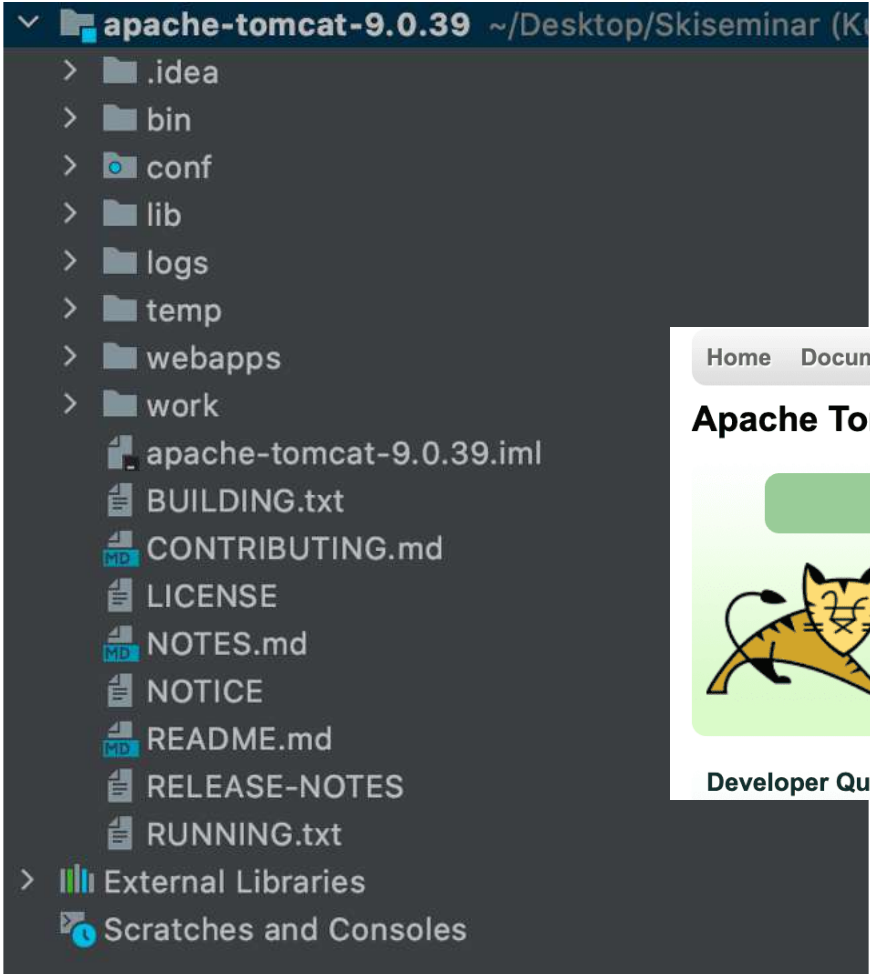


# Tag Libraries

Interpret different scripting languages used in a JSP page


BSF (Bean Scripting Framework)	JSR-223 (Scripting for the Java Platform)
Open-source interface for scripting languages within Java applications	Inspired by BSF
Write JSP files with languages other than Java	Pluggable and scripting language-independent architecture
Does not consist of language engines	Generating web content of programs written in scripting languages for web content

# Apache Tomcat




Home Documentation Configuration Examples Wiki Mailing Lists Find Help

## Apache Tomcat/9.0.39

 SOFTWARE FOUNDATION  
http://www.apache.org/

**If you're seeing this, you've successfully installed Tomcat. Congratulations!**

 **Recommended Reading:**

- [Security Considerations How-To](#)
- [Manager Application How-To](#)
- [Clustering/Session Replication How-To](#)

[Server Status](#)

[Manager App](#)

[Host Manager](#)

Developer Quick Start

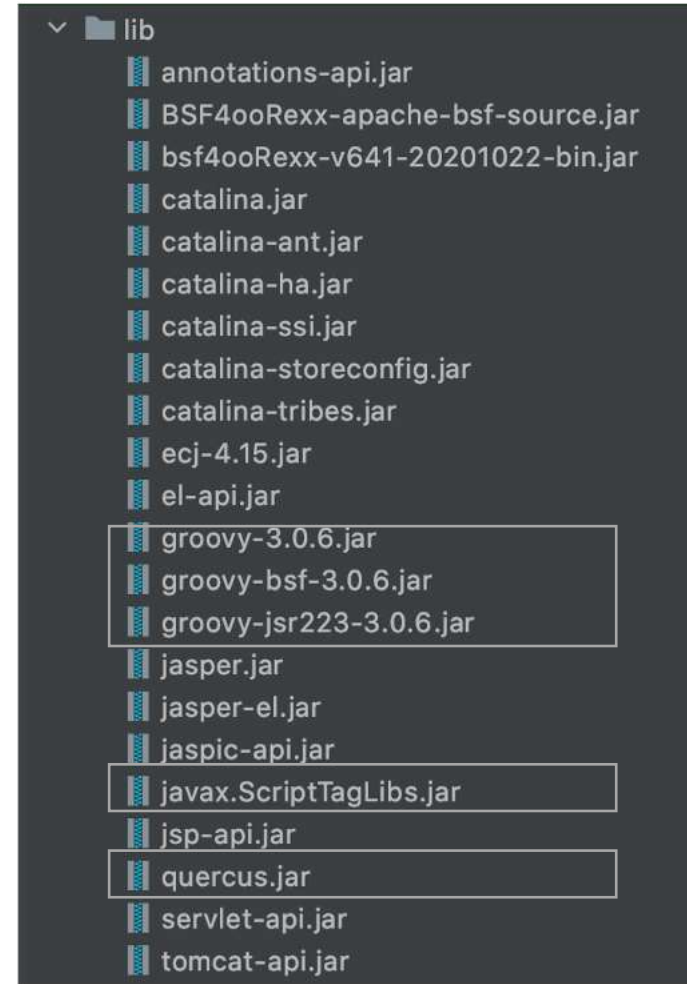
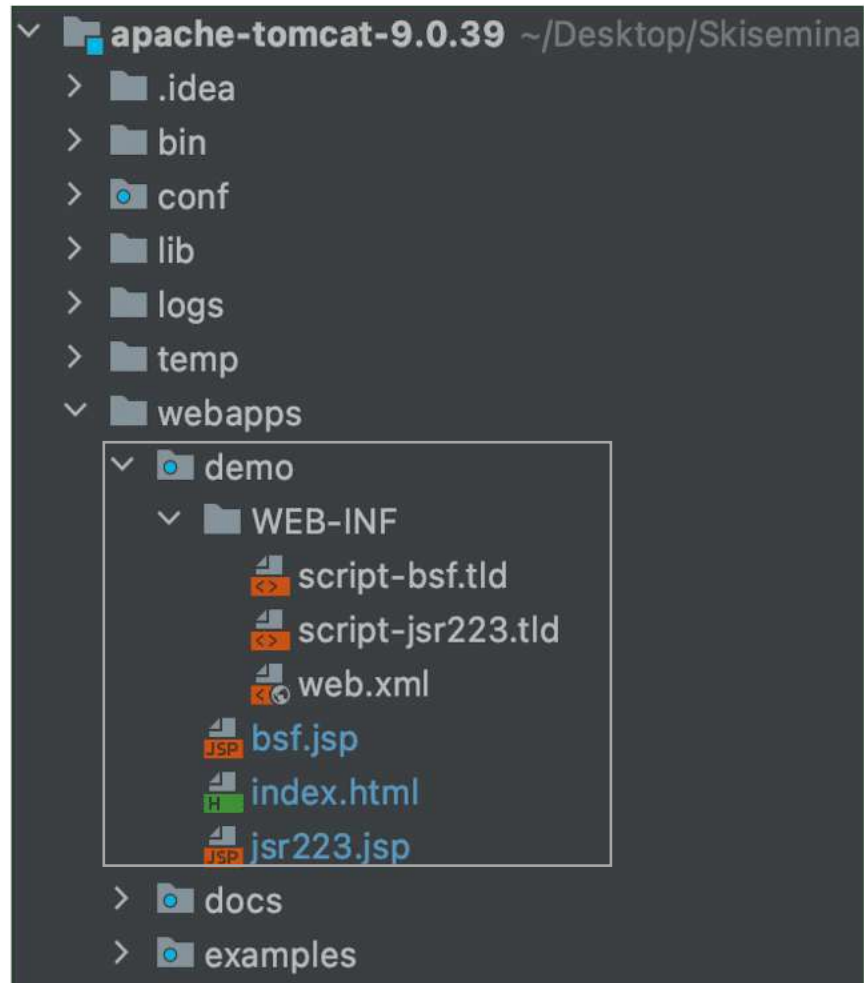
# Tag Libraries

---

```
<%@ page session="false" pageEncoding="UTF-8" contentType="text/html; charset=UTF-8" %>  
<%@ taglib uri="/WEB-INF/script-jsr223.tld" prefix="s" %>
```

```
<%@ page session="false" pageEncoding="UTF-8" contentType="text/html; charset=UTF-8" %>  
<%@ taglib uri="/WEB-INF/script-bsf.tld" prefix="s" %>
```

# Apache Groovy & PHP



## Nutshell context

B2B Online News Publisher

Business Topics:

- IT
- Marketing
- Finance
- Economics
- Mathematics

# If-Else-If

## Groovy

```
<s:script type="groovy" cacheSrc="false">
    def userstatus = 'user'

    if (userstatus='user') {
        out.println("You can find the latest
news from your field of interest here!");
    } else
        if (userstatus ='premium') {
            out.println("View your personalized news
section!");
        } else {
            out.println("Have a look at the latest
news!");
        }
</s:script>
```

## PHP

```
<s:script type="php" cacheSrc="false">
    <!DOCTYPE html>
    <?php
        $userstatus = user;

        if ($userstatus == "user") {
            echo "You can find the latest news from
your field of interest here!";
        } elseif ($userstatus == "premium") {
            echo "View your personalized news
section!";
        } else {
            echo "Have a look at the latest news!";
        }
    ?>
</s:script>
```

# Switch

## Groovy

```
<s:script type="groovy" cacheSrc="false">
  def preference = 'IT'
  switch(preferance) {
  case 'IT':
    out.println("See the latest IT news");
    break;
  case 'Marketing':
    out.println("See the latest marketing
news");
    break;
  case 'Finance':
    out.println("See the latest finance
news!");
    break;
  default:
    out.println("You can see some articles
that you may find interesting");
    break;
  }
</s:script>
```

## PHP

```
<s:script type="php" cacheSrc="false">
  <!DOCTYPE html>
  <?php
  $preference = "IT";

  switch ($preference) {
  case "IT":
    echo "See the latest IT news";
    break;
  case "Marketing":
    echo "See the latest marketing news";
    break;
  case "Finance":
    echo "See the latest finance news!";
    break;
  default:
    echo "You can see some articles that you may
find interesting";
  }
  ?>
</s:script>
```

# Lists

```
<s:script type="groovy" cacheSrc="false">
  def number = (1..10)
  def topic = ['Marketing - ', 'IT - ', 'Finance - ', 'Economics - ', 'Mathematics - ']

  def preference = [topic, number].combinations().collect { it.join() }
  def dashboard = preference.asImmutable()
  assert preference.size() == 50
  preference.shuffle()
  assert preference.every { pref -> dashboard.contains(pref) }
  println preference.take(5)
</s:script>
```

```
[Mathematics - 8, Finance - 1, Mathematics - 2, IT - 5, Marketing - 2]
```



# Maps

```
<s:script type="groovy" cacheSrc="false">
  def user = [
    user123 : 'Economics',
    user234 : 'Marketing',
    user657 : 'Economics',
    user986 : 'IT'
  ]
  user.each { key, val ->
    println "$key = $val,"
  }
</s:script>
```

```
user123 = Economics, user234 = Marketing, user657 = Economics, user986 = IT,
```

# Sessions

---

```
<s:script type="php" cacheSrc="false">
  <!DOCTYPE html>
  <?php
  session_start();
  $_SESSION["preference"] = "IT";
  if(!isset($_SESSION)) {
  echo "Welcome to our page Guest!";
  } else {
  echo "Do you want to view the latest news from the " .
  $_SESSION["preference"] . " sector?";
  }
  ?>
</s:script>
```

Do you want to view the latest news from the IT sector?

# Cookies

```
<s:script type="php" cacheSrc="false">
  <!DOCTYPE html>
  <?php
    $cookie_name = "user";
    $cookie_value = "Marion";
    setcookie($cookie_name, $cookie_value, time() + (86400 * 30), "/");

    if(!isset($cookie_name)) {
      echo "Welcome to our page Guest!";
    } else {
      echo "Welcome to our page " . $cookie_value . "!";
    }
  ?>
</s:script>
```

**Welcome to our page Marion!**

## Summary

Apache Groovy & PHP applied in different contexts - still similarities

Tag libraries enabled use of both languages (Even PHP)

Possibilities of Apache Tomcat

# Outlook

Other scripting languages & tab library

More complex examples of the scripting languages

# References

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Zambon, G. (2012). *Beginning JSP, JSF and Tomcat: Java Web Development*. Apress.