JAVA SERVER FACES LESSONS – MATERIALS.1

Линкови

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books.xhtml

css\bluebliss.css

images\footer.gif

images\header.gif

images\tab.gif

images\tab2.gif

index.jsp

login.xhtml

menu.jsp

META-INF\MANIFEST.MF

search.xhtml

WEB-INF\components\bodyAddBook.xhtml

WEB-INF\components\bodyBooks.xhtml

WEB-INF\components\bodyLogin.xhtml

WEB-INF\components\bodySearchBooks.xhtml

WEB-INF\components\footer.xhtml

WEB-INF\components\menu.xhtml

WEB-INF\faces-config.xm1

WEB-INF\lib\javax.faces-2.2.4.jar

WED-INT MOJAVAX.Taccs-2.2.4.jai

WEB-INF\lib\jstl-api-1.2.jar

WEB-INF\lib\jstl-impl-1.2.jar

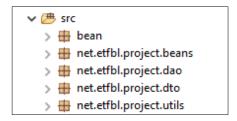
WEB-INF\lib\mysql-connector-java-8.0.22.jar

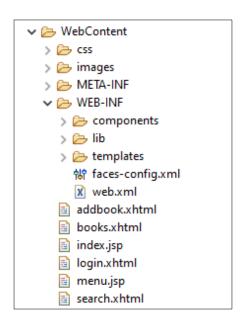
WEB-INF\lib\omnifaces-1.7.jar

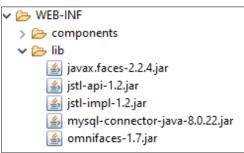
WEB-INF\templates\template.xhtml

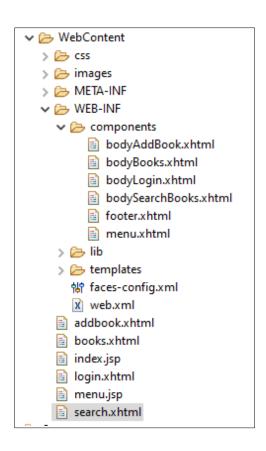
WEB-INF\web.xm1

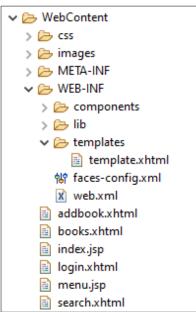
Пребројано је 26 ставки.

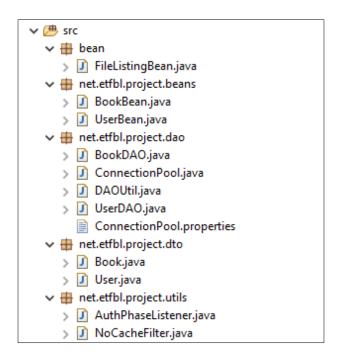












WEB.XML

```
<servlet>
      <servlet-name>Faces Servlet
      <servlet-class>javax.faces.webapp.FacesServlet</servlet-class>
      <load-on-startup>1</load-on-startup>
8
   </servlet>
9⊖ <servlet-mapping>
     <serviet mapping/
<serviet-name>Faces Serviet</serviet-name>
<url-pattern>/faces/*</url-pattern>
10
1
    </servlet-mapping>
12
L3⊖ <context-param>
      <description>State saving method: 'client' or 'server' (=default). See JSF Specification 2.5.2</description>
L4
      <param-name>javax.faces.STATE_SAVING_METHOD</param-name</pre>
L5
L6
      <param-value>client</param-value>
L7
    </context-param>
L8⊖ <context-param>
19
      <param-name>javax.servlet.jsp.jstl.fmt.localizationContext</param-name>
      <param-value>resources.application
20
    </context-param>
22⊖ <listener>
23
      tener-class>com.sun.faces.config.ConfigureListener</listener-class>
24
    </listener>
25⊖ <filter>
26
      <filter-name>NoCacheFilter</filter-name>
      <filter-class>net.etfbl.project.utils.NoCacheFilter</filter-class>
28
29⊖ <filter-mapping>
      <filter-name>NoCacheFilter</filter-name>
30
31
      <servlet-name>Faces Servlet
    </filter-mapping>
33 </web-app>
```

FACES-CONFIG.XML

```
<?xml version="1.0" encoding="UTF-8"?>
<faces-config
    xmlns="http://xmlns.jcp.org/xml/ns/javaee"
    xmlns:xsi="http://www.w3.org/2001/XMLSchema-instance"
xsi:schemaLocation="http://xmlns.jcp.org/xml/ns/javaee http://xmlns.jcp.org/xml/ns/javaee/web-facesconfig_2_2.xsd" version="2.2">
    <managed-bean>
         <managed-bean-name>bookBean</managed-bean-name>
         <managed-bean-class>net.etfbl.project.beans.BookBean</managed-bean-class>
         <managed-bean-scope>session/managed-bean-scope>
    </managed-bean>
    <managed-bean>
        <managed-bean-name>userBean</managed-bean-name>
         <managed-bean-class>net.etfbl.project.beans.UserBean</managed-bean-class>
         <managed-bean-scope>session</managed-bean-scope>
    </managed-bean>
    fecycle>
         <phase-listener>net.etfbl.project.utils.AuthPhaseListener/phase-listener>

</lifecycle>
</faces-config>
```

ConnectionPool.properties

```
1 jdbcURL=jdbc:mysql://127.0.0.1:3306/etf?useUnicode=true&characterEncoding=UTF-8
2 username=root
3 password=root
4 driver=com.mysql.jdbc.Driver
5 preconnectCount=2
6 maxIdleConnections=25
7 maxConnections=25
```

DAOUtil.java

```
package net.etfbl.project.dao;
3
   import java.sql.*;
4
5 public final class DAOUtil {
6
7⊝
       public static PreparedStatement prepareStatement(Connection connection,
8
                String sql, boolean returnGeneratedKeys, Object... values)
9
                throws SQLException {
           PreparedStatement preparedStatement = connection.prepareStatement(sql,
10
11
                    returnGeneratedKeys ? Statement.RETURN_GENERATED_KEYS
12
                            : Statement.NO_GENERATED_KEYS);
13
           setValues(preparedStatement, values);
           return preparedStatement;
14
15
       }
16
       public static void setValues(PreparedStatement preparedStatement,
17⊝
               Object... values) throws SQLException {
18
19
           for (int i = 0; i < values.length; i++) {
               preparedStatement.setObject(i + 1, values[i]);
20
21
           }
22
       }
23 }
24
```

NoCacheFilter.java

```
package net.etfbl.project.utils;
 3⊕ import java.io.IOException;[.]
15 public class NoCacheFilter implements Filter {
           @Override
17⊝
18
          public void destroy() {
    // TODO Auto-generated method stub
19
20
21
22
23©
24
25
26
27
28
29
30
31
32
33
34
35
36
37<sup>©</sup>
           public void doFilter(ServletRequest request, ServletResponse response, FilterChain chain) throws IOException, ServletException {
                HttpServletRequest httpReq = (HttpServletRequest) request;
HttpServletResponse httpRes = (HttpServletResponse) response;
                if (!httpReq.getRequestURI().startsWith(httpReq.getContextPath() + ResourceHandler.RESOURCE_IDENTIFIER)) {
                     httpRes.setHeader("Cache-Control", "no-cache, no-store, must-revalidate");
httpRes.setHeader("Pragma", "no-cache");
httpRes.setDateHeader("Expires", 0);
                }
                chain.doFilter(request, response);
          }
          public void init(FilterConfig arg@) throws ServletException {
    // TODO Auto-generated method stub
39
40
41
42
43
44
```

AuthPhaseListener.java

```
package net.etfbl.project.utils;
 3⊕ import java.util.Map;
   public class AuthPhaseListener implements PhaseListener {
           private static final long serialVersionUID = 1L;
15
          @SuppressWarnings("rawtypes")
public void afterPhase(PhaseEvent event) {
16⊖
17
18
                FacesContext facesContext = event.getFacesContext();
19
20
21
                ExternalContext context=facesContext.getExternalContext();
                context.getSession(true);
Map sessMap=context.getSessionMap();
22
23
24
25
26
27
28
29
30
31 ©
                UserBean userBean =(UserBean)sessMap.get("userBean");
                boolean onLoginPage = (-1 != facesContext.getViewRoot().getViewId().lastIndexOf("login")) ? true : false;
if (!onLoginPage && ((userBean == null) || !(userBean.isLoggedIn()))) {
    event.getFacesContext().getApplication().getNavigationHandler().handleNavigation(event.getFacesContext(), null, "login");
           public void beforePhase(PhaseEvent event) {
33
34
35⊜
           public PhaseId getPhaseId() {
36
37
38
39 }
                return PhaseId.RESTORE_VIEW;
```

Timer
TimerTask
Concurrent
Concurrent Basic
Java FX Swing AWT JFC
Generics JCF

User.java

```
package net.etfbl.project.dto;
3 public class User {
4
       private int id;
5
       private String username;
6
       private String password;
7
       private int userGroup;
80
       public User() {
9
       public User(int id, String username, String password, int userGroup) {
10⊝
11
           super();
           this.id = id;
12
13
           this.username = username;
           this.password = password;
14
15
           this.userGroup = userGroup;
16
17⊝
       public int getId() {
18
           return id;
19
20⊝
       public void setId(int id) {
21
           this.id = id;
22
23⊖
       public String getUsername() {
24
           return username;
25
26⊖
       public void setUsername(String username) {
27
           this.username = username;
28
29⊝
       public String getPassword() {
30
           return password;
31
32⊖
       public void setPassword(String password) {
33
           this.password = password;
34
       public int getUserGroup() {
35⊜
36
           return userGroup;
37
38⊖
       public void setUserGroup(int userGroup) {
39
           this.userGroup = userGroup;
40
       }
41 }
42
```

Book.java

```
package net.etfbl.project.dto;
3 import java.io.Serializable;
 5 public class Book implements Serializable{
7
        */
8
9
       private static final long serialVersionUID = 1L;
10
       private int id;
11
       private String author;
12
       private String title;
13
       private String publisher;
14
       private int year;
15
       private String isbn;
16⊖
       public Book() {
17
       }
18⊝
       public Book(String author, String title,
19
               String publisher, int year, String isbn) {
20
21
           this.author = author;
22
           this.title = title;
23
           this.publisher = publisher;
24
           this.year = year;
25
           this.isbn = isbn;
26
27⊝
       public Book(int id, String author, String title, String publisher,
28
               int year, String isbn) {
29
           super();
30
           this.id = id;
31
           this.author = author;
32
           this.title = title;
33
           this.publisher = publisher;
34
           this.year = year;
           this.isbn = isbn;
35
36
```

```
37⊝
       public int getId() {
38
           return id;
39
40⊝
       public void setId(int id) {
           this.id = id;
41
42
43Θ
       public String getAuthor() {
44
           return author;
45
46⊝
       public void setAuthor(String author) {
47
           this.author = author;
48
49⊝
       public String getTitle() {
50
           return title;
51
52Θ
       public void setTitle(String title) {
53
           this.title = title;
54
55⊝
       public String getPublisher() {
56
           return publisher;
57
58⊖
       public void setPublisher(String publisher) {
59
           this.publisher = publisher;
60
       public int getYear() {
61⊖
           return year;
63
       public void setYear(int year) {
64⊖
65
           this.year = year;
66
67⊝
       public String getIsbn() {
68
           return isbn;
69
       public void setIsbn(String isbn) {
70⊝
           this.isbn = isbn;
71
72
73 }
74
```

ConnectionPool.java

```
package net.etfbl.project.dao;
3⊕ import java.sql.*;...
 6 public class ConnectionPool {
7
     public static ConnectionPool getConnectionPool() {
80
9
       return connectionPool;
10
11
12
     private static ConnectionPool connectionPool;
13
14⊖
     static {
15
       ResourceBundle bundle =
         PropertyResourceBundle.getBundle("net.etfbl.project.dao.ConnectionPool");
16
       String jdbcURL = bundle.getString("jdbcURL");
17
       String username = bundle.getString("username");
18
       String password = bundle.getString("password");
19
20
       String driver = bundle.getString("driver");
21
       int preconnectCount = 0;
22
       int maxIdleConnections = 10;
23
       int maxConnections = 10;
24
       try {
25
           Class.forName(driver);
26
         preconnectCount = Integer.parseInt(
27
           bundle.getString("preconnectCount"));
28
         maxIdleConnections = Integer.parseInt(
29
           bundle.getString("maxIdleConnections"));
30
         maxConnections = Integer.parseInt(
31
           bundle.getString("maxConnections"));
32
       } catch (Exception ex) {
33
         ex.printStackTrace();
34
       }
35
       try {
36
         connectionPool = new ConnectionPool(
37
           jdbcURL, username, password,
38
           preconnectCount, maxIdleConnections,
39
           maxConnections);
40
        } catch (Exception ex) {
41
         ex.printStackTrace();
42
        }
43
     }
```

```
458
      protected ConnectionPool(String aJdbcURL, String aUsername,
46
        String aPassword, int aPreconnectCount,
47
        int aMaxIdleConnections,
48
        int aMaxConnections)
49
        throws ClassNotFoundException, SQLException {
50
        freeConnections = new Vector<Connection>();
51
52
        usedConnections = new Vector<Connection>();
53
        jdbcURL = aJdbcURL;
54
        username = aUsername;
55
        password = aPassword;
56
        preconnectCount = aPreconnectCount;
57
        maxIdleConnections = aMaxIdleConnections;
58
        maxConnections = aMaxConnections;
59
60
        for (int i = 0; i < preconnectCount; i++) {</pre>
61
          Connection conn = DriverManager.getConnection(
62
            jdbcURL, username, password);
          conn.setAutoCommit(true);
63
64
          freeConnections.addElement(conn);
65
66
        connectCount = preconnectCount;
67
      }
```

```
public synchronized Connection checkOut()
         throws SQLException {
 70
 71
 72
         Connection conn = null;
 73
         if (freeConnections.size() > 0) {
 74
           conn = (Connection)freeConnections.elementAt(0);
 75
           freeConnections.removeElementAt(0);
           usedConnections.addElement(conn);
 76
 77
         } else {
 78
           if (connectCount < maxConnections) {</pre>
 79
             conn = DriverManager.getConnection(
 80
               jdbcURL, username, password);
             usedConnections.addElement(conn);
 81
 82
             connectCount++;
 83
           } else {
 84
             try {
 85
               wait();
 86
               conn = (Connection)freeConnections.elementAt(0);
 87
               freeConnections.removeElementAt(0);
 88
               usedConnections.addElement(conn);
 89
             } catch (InterruptedException ex) {
 90
               ex.printStackTrace();
 91
 92
           }
 93
 94
         return conn;
 95
 96
 97⊝
       public synchronized void checkIn(Connection aConn) {
 98
         if (aConn == null)
 99
           return;
         if (usedConnections.removeElement(aConn)) {
100
101
           freeConnections.addElement(aConn);
102
           while (freeConnections.size() > maxIdleConnections) {
             int lastOne = freeConnections.size() - 1;
103
104
             Connection conn = (Connection)
105
               freeConnections.elementAt(lastOne);
             try { conn.close(); } catch (SQLException ex) { }
106
             freeConnections.removeElementAt(lastOne);
107
108
109
           notify();
110
         }
111
       }
112
```

```
112
113
      private String jdbcURL;
114
      private String username;
115
116
      private String password;
       private int preconnectCount;
117
        private int connectCount;
118
        private int maxIdleConnections;
        private int maxConnections;
119
        private Vector<Connection> usedConnections;
private Vector<Connection> freeConnections;
120
121
122
123 }
```

BookDAO.java

```
package net.etfbl.project.dao;
 3⊕ import java.sql.Connection; ...
11 public class BookDAO {
        private static ConnectionPool connectionPool = ConnectionPool.getConnectionPool();
12
        private Static Ginal String SQL_SELECT_BY_TITLE = "SELECT * FROM book Where id = ?";

private static final String SQL_SELECT_BY_TITLE = "SELECT * FROM book (author, title, publisher, year, isbn) VALUES (?, ?, ?, ?)";

private static final String SQL_SELECT_BY_TITLE = "SELECT * FROM book WHERE title LIKE ?";
13
14
15
16
17
18⊝
        public static ArrayList<Book> selectAll(){
19
             ArrayList<Book> retVal = new ArrayList<Book>();
20
21
             Connection connection = null;
             ResultSet rs = null:
22
             Object values[] = {};
23
             try {
24
25
                  connection = connectionPool.checkOut();
                  26
27
                  rs = pstmt.executeQuery();
28
29
                  while (rs.next()){
                      retVal.add(new Book(rs.getInt("id"), rs.getString("author"), rs.getString("title"), rs.getString("publisher"),
30
31
                  pstmt.close();
32
             } catch (SQLException exp) {
33
34
                  exp.printStackTrace();
             } finally {
35
                  connectionPool.checkIn(connection);
36
37
             return retVal;
38
```

```
rs.getString("title"), rs.getString("publisher"), rs.getInt("year"),rs.getString("isbn")));
```

```
40⊝
       public static boolean insert(Book book) {
           boolean retVal = false;
41
42
            Connection connection = null;
           ResultSet generatedKeys = null;
43
           Object values[] = { book.getAuthor(), book.getTitle(), book.getPublisher(), book.getYear(), book.getIsbn()};
44
45
           try {
46
                connection = connectionPool.checkOut();
               PreparedStatement pstmt = DAOUtil.prepareStatement(connection, SQL_INSERT, true,
47
48
                       values):
               int affectedRows = pstmt.executeUpdate();
49
               if (affectedRows == 0)
50
51
                   retVal = false;
52
               else
53
                   retVal = true;
54
                generatedKeys = pstmt.getGeneratedKeys();
               if (generatedKeys.next())
55
56
                   book.setId(generatedKeys.getInt(1));
57
               pstmt.close();
           } catch (SQLException e) {
58
59
               retVal = false;
60
           } finally {
61
               connectionPool.checkIn(connection);
62
63
           return retVal;
64
       }
65
```

```
public static boolean delete(Book book) {
66⊜
67
            boolean retVal = false;
68
            Connection connection = null;
69
            Object values[] = { book.getId()};
70
            try {
71
                connection = connectionPool.checkOut();
                PreparedStatement pstmt = DAOUtil.prepareStatement(connection, SQL_DELETE_BY_ID, true,
72
73
                        values);
                int affectedRows = pstmt.executeUpdate();
if (affectedRows == 0)
74
75
76
                     retVal = false;
77
78
                    retVal = true;
79
                pstmt.close();
            } catch (SQLException e) {
80
81
                retVal = false;
82
            } finally {
83
                connectionPool.checkIn(connection);
84
85
            return retVal;
       }
86
87
```

```
public static ArrayList<Book> selectByTitleSearch(String titleSearch){
 88<sup>©</sup>
 89
            ArrayList<Book> retVal = new ArrayList<Book>();
 90
            Connection connection = null;
 91
            ResultSet rs = null;
            Object values[] = {"%"+titleSearch+"%"};
 92
93
            try {
 94
                 connection = connectionPool.checkOut();
 95
                PreparedStatement pstmt = DAOUtil.prepareStatement(connection,
96
                         SQL_SELECT_BY_TITLE, false, values);
                 rs = pstmt.executeQuery();
97
98
                 while (rs.next()){
                    retVal.add(new Book(rs.getInt("id"), rs.getString("author"), rs.getString("title"),
99
100
101
                pstmt.close();
102
            } catch (SQLException exp) {
103
                 exp.printStackTrace();
104
             } finally {
105
                 connectionPool.checkIn(connection);
106
107
            return retVal;
108
        }
109
```

UserDAO.jsp

```
package net.etfbl.project.dao;
 3⊕ import java.sql.Connection; [
11 public class UserDAO {
         private static ConnectionPool connectionPool = ConnectionPool.getConnectionPool();
private static final String SQL_SELECT_BY_USERNAME_AND_PASSWORD = "SELECT * FROM user WHERE username=? AND password=?";
12
13
15⊝
16
         public static User selectByUsernameAndPassword(String username, String password){
              User user = null;
Connection connection = null;
18
               ResultSet rs = null;
19
20
              Object values[] = {username, password};
21
                    connection = connectionPool.checkOut();
                   PreparedStatement pstmt = DAOUtil.prepareStatement(connection, 
SQL_SELECT_BY_USERNAME_AND_PASSWORD, false, values);
22
23
24
25
                   rs = pstmt.executeQuery();
                   if (rs.next()){
26
27
28
                        user = new User(rs.getInt("id"), rs.getString("username"), rs.getString("password"), rs.getInt("user_group"));
                   pstmt.close();
29
              } catch (SQLException exp) {
30
                   exp.printStackTrace();
31
32
              } finally {
                   connectionPool.checkIn(connection);
33
34
35
36
37
38
               return user;
```

UserBean.jsp

```
package net.etfbl.project.beans;
3⊕ import net.etfbl.project.dao.UserDAO;...
6 public class UserBean {
       private User user = new User();
       private boolean loggedIn = false;
8
9
10⊝
       public String login(){
            if ((user = UserDAO.selectByUsernameAndPassword(user.getUsername(), user.getPassword()))!=null){
11
12
                loggedIn = true;
13
                return "books?faces-redirect=true";
14
15
            user = new User();
16
            loggedIn = false;
17
            return "login?faces-redirect=true";
18
       }
19
20⊝
       public User getUser() {
21
            return user;
22
23
24⊝
       public boolean isLoggedIn() {
25
            return loggedIn;
26
27
28⊝
       public String logout(){
29
            loggedIn = false;
30
            return "login?faces-redirect=true";
31
32 }
33
```

BookBean.jsp

```
package net.etfbl.project.beans;
3⊕ import net.etfbl.project.dao.UserDAO;...
6 public class UserBean {
       private User user = new User();
       private boolean loggedIn = false;
9
10⊝
       public String login(){
11
           if ((user = UserDAO.selectByUsernameAndPassword(user.getUsername(), user.getPassword()))!=null){
12
               loggedIn = true;
               return "books?faces-redirect=true";
13
14
           user = new User();
15
           loggedIn = false;
16
17
           return "login?faces-redirect=true";
18
19
20⊝
       public User getUser() {
           return user;
21
22
23
24⊝
       public boolean isLoggedIn() {
25
           return loggedIn;
26
27
28⊝
       public String logout(){
29
           loggedIn = false;
30
           return "login?faces-redirect=true";
31
       }
32 }
33
```

MENU.JSP

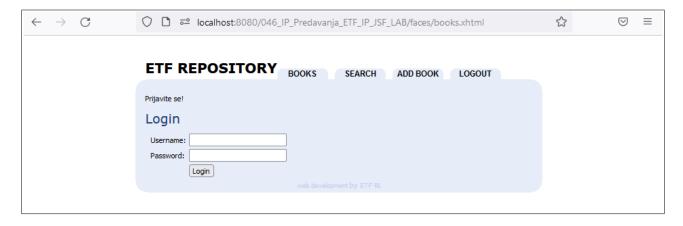
```
<%@ page language="java" contentType="text/html; charset=UTF-8" pageEncoding="UTF-8"%</pre>
 2 <!DOCTYPE html>
 3⊖ <html>
 4⊝
                <meta charset="UTF-8">
                <title>Books Application API Menu</title>
 6
 7
 80
          <body>
                <h3>BOOKS APP MENU</h3>
 9
10⊝
                <d1>
                      <dd><a href='${pageContext.request.contextPath}/faces/addbook.xhtml'>Add book</a></dd>
11
                     <dd><a href='${pageContext.request.contextPath}/faces/search.xhtml'>Search books</a></dd>
<dd><a href='${pageContext.request.contextPath}/faces/search.xhtml'>Preview books</a></dd>
<dd><a href='${pageContext.request.contextPath}/faces/login.xhtml'>Login/logout form</a></dd>
</dd>

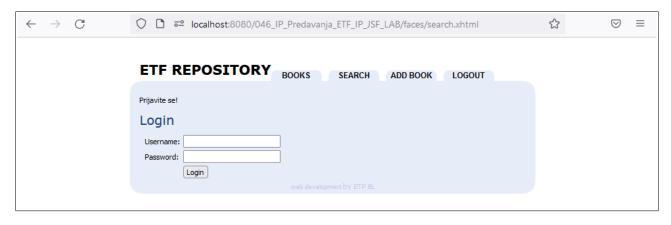
12
13
14
15
                </dl>
          </body>
16
17 </html>
```

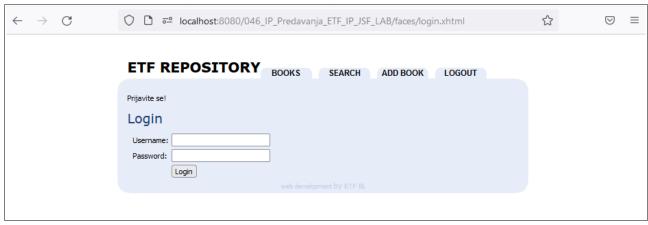
BOOKS APP MENU

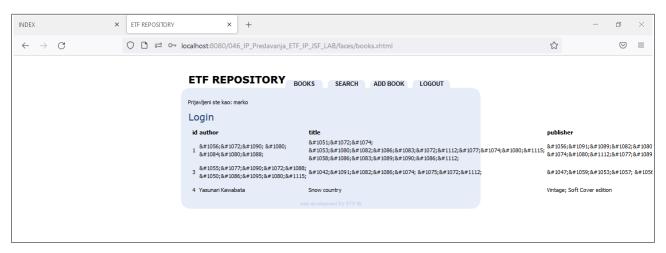
Add book Search books Preview books Login/logout form

← → C	○ 🗅 🗝 localhost:8080/046_IP_Predavanja_ETF_IP_JSF_LAB/faces/addbook.xhtml	☆	⊚ ≡
	ETF REPOSITORY BOOKS SEARCH ADD BOOK LOGOUT		
	Prijavite se!		
	Login		
	Username:		
	Password:		
	Login web development by ETF BL		











ETF REP	OSITORY	BOOKS	SEARCH	ADD BOOK	LOGOUT
Prijavljeni ste kao:	marko				
Login					
Author:					
Title:					
Publisher:					
Year: 0					
ISBN:					
Add b	ook				
j_idt28:author: \	alidation Error: Value is	required.			

ETF R	REPOSITORY BOOKS SEARCH ADD BOOK LOGOUT
Prijavljeni ste	e kao: marko
Login	
Author:	
Title:	
Publisher:	
Year:	0
ISBN:	
	Add book
j_idt28:ye	ear: Validation Error: Specified attribute is not between the expected values of 1.950 and 2.021.
j_idt28:isb	on: Validation Error: Value is required.
j_idt28:au	rthor: Validation Error: Value is required.

search.xhtml

```
1⊖ <html xmlns="http://www.w3.org/1999/xhtml"</p>
         xmlns:f="http://java.sun.com/jsf/core"
3
         xmlns:ui="http://java.sun.com/jsf/facelets"
         xmlns:h="http://java.sun.com/jsf/html">
5⊖ <h:body>
6⊖ <ui:composition template="/WEB-INF/templates/template.xhtml">
7⊖ <ui:define name="title">
       <h:outputText value="ETF REPOSITORY" />
9 </ui:define>
10⊖ <ui:define name="menu">
       <ui:include src="/WEB-INF/components/menu.xhtml"></ui:include>
11
12
    </ui:define>
13⊝
       <ui:define name="contentTitle">
14
           <h:outputText value="Login" />
15
       </ui:define>
16⊖ <ui:define name="pageContent">
         <ui:include src="/WEB-INF/components/bodySearchBooks.xhtml"></ui:include>
17
18
   </ui:define>
19⊖ <ui:define name="footer">
20
         <ui:include src="/WEB-INF/components/footer.xhtml"></ui:include>
21
     </ui:define>
22 </ui:composition>
23
24 </h:body>
25 </html>
```

login.xhtml

```
1⊖ <html xmlns="http://www.w3.org/1999/xhtml"
         xmlns:f="http://java.sun.com/jsf/core"
         xmlns:ui="http://java.sun.com/jsf/facelets"
3
         xmlns:h="http://java.sun.com/jsf/html">
5⊖ <h:body>
6⊖ <ui:composition template="/WEB-INF/templates/template.xhtml">
7⊖ <ui:define name="title">
       <h:outputText value="ETF REPOSITORY" />
9 </ui:define>
10⊖ <ui:define name="menu">
       <ui:include src="/WEB-INF/components/menu.xhtml"></ui:include>
12 </ui:define>
13⊖ <ui:define name="contentTitle">
14
           <h:outputText value="Login" />
15
      </ui:define>
16⊖ <ui:define name="pageContent">
17
         <ui:include src="/WEB-INF/components/bodyLogin.xhtml"></ui:include>
18 </ui:define>
19⊖ <ui:define name="footer">
20
         <ui:include src="/WEB-INF/components/footer.xhtml"></ui:include>
     </ui:define>
21
22 </ui:composition>
23
24 </h:body>
25 </html>
```

books.xhml

```
1⊖ <html xmlns="http://www.w3.org/1999/xhtml"
         xmlns:f="http://java.sun.com/jsf/core"
         xmlns:ui="http://java.sun.com/jsf/faceLets"
         xmlns:h="http://java.sun.com/jsf/html"
5⊖ <h:body>
 6⊖ <ui:composition template="/WEB-INF/templates/template.xhtml">
7⊖ <ui:define name="title">
       <h:outputText value="ETF REPOSITORY" />
9 </ui:define>
10⊖ <ui:define name="menu">
       <ui:include src="/WEB-INF/components/menu.xhtml"></ui:include>
11
12
     </ui:define>
13⊖
       <ui:define name="contentTitle">
           <h:outputText value="Login" />
14
15
       </ui:define>
16⊖ <ui:define name="pageContent">
17
         <ui:include src="/WEB-INF/components/bodyBooks.xhtml"></ui:include>
18
     </ui:define>
19⊖ <ui:define name="footer">
         <ui:include src="/WEB-INF/components/footer.xhtml"></ui:include>
21
     </ui:define>
22 </ui:composition>
23
24 </h:body>
25 </html>
```

addbook.xhtml

```
1⊖ <html xmlns="http://www.w3.org/1999/xhtml"
         xmlns:f="http://java.sun.com/jsf/core"
         xmlns:ui="http://java.sun.com/jsf/facelets"
         xmlns:h="http://java.sun.com/jsf/html"
5⊖ <h:body>
6⊖ <ui:composition template="/WEB-INF/templates/template.xhtml">
7⊖ <ui:define name="title">
       <h:outputText value="ETF REPOSITORY" />
9 </ui:define>
10⊖ <ui:define name="menu">
11
       <ui:include src="/WEB-INF/components/menu.xhtml"></ui:include>
12
     </ui:define>
13⊜
     <ui:define name="contentTitle">
14
           <h:outputText value="Login" />
15
      </ui:define>
16⊖ <ui:define name="pageContent">
17
         <ui:include src="/WEB-INF/components/bodyAddBook.xhtml"></ui:include>
18
     </ui:define>
19⊖ <ui:define name="footer">
         <ui:include src="/WEB-INF/components/footer.xhtml"></ui:include>
20
21
     </ui:define>
22 </ui:composition>
23
24 </h:body>
25 </html>
```

template.xhtml

```
1⊝ <html xmlns="http://www.w3.org/1999/xhtml"
                            xmlns:ui="http://java.sun.com/jsf/facelets"
xmlns:f="http://java.sun.com/jsf/core"
xmlns:h="http://java.sun.com/jsf/html"
  5⊖ <h:head>
 6 <meta http-equiv="Content-Type" content="text/html; charset=UTF-8" />
7 <title><ui:insert name="title" /></title>
8 <link rel="stylesheet" type="text/css" href="../css/bluebliss.css" />
10
11⊖ <div id="mainContentArea">
12⊝
                             <div id="contentBox">
13⊖
                                           <div id="title">
14
                                                            <ui:insert name="title" />
                                             </div>
15
16
17⊝
                                           <div id="linkGroup">
18
                                                            <ui:insert name="menu" />
                                            </div>
19
20
                                           <div id="blueBox">
    <div id="header"></div>
21⊝
22
23⊝
                                                          <div class="userLogin"
                                                                           <h:outputText rendered="#{userBean.loggedIn}" value="Prijavljeni
<h:outputText rendered="#{!userBean.loggedIn}" value="Prijavljeni" value
24
25
26
                                                  <div class="contentTitle">
    <ui:insert name="contentTitle" />
27⊝
28
                                                            30⊝
31
                                                             </div>
33⊝
                                                            <div id="footer">
                                                                             <ui:insert name="footer" />
34
                                                             </div>
                                             </div>
36
37
                             </div>
           </div>
39
           </html>
```

menu.xhtml

```
1⊖ <html xmlns="http://www.w3.ora/1999/xhtml"
           xmlns:ui="http://java.sun.com/jsf/facelets"
           xmlns:h="http://java.sun.com/jsf/html"
4
           xmlns:f="http://java.sun.com/jsf/core"
5⊜
         <ui:composition>
6⊜
             <h:form>
                  <div class="link"><h:outputLink value="books.xhtml"><h:outputText value="BOOKS"/></h:outputLink></div>
                  duv class="link"><h:outputLink value="search.xhtml"><h:outputText value="SEARCH BOOKS"/></h:outputLink></div>
div class="link"><h:outputLink value="addbook.xhtml"><h:outputText value="ADD BOOK"/></h:outputLink></div>
8
10
                   <div class="link"><h:commandLink action="#{userBean.logout}" value="LOGOUT"/></div>
11
             </h:form>
         </ui:composition>
12
   </html>
13
```

footer.xhtml

```
1⊖ <html xmlns="http://www.w3.org/1999/xhtml"</p>
        xmlns:ui="http://java.sun.com/jsf/facelets"
2
        xmlns:h="http://java.sun.com/jsf/html"
3
        xmlns:f="http://java.sun.com/jsf/core">
4
5⊝
      <ui:composition>
           <a href="#">web development</a> by <a href="#">ETF BL</a>
6
      </ui:composition>
7
  </html>
8
9
```

bodyAddBook.xhtml

```
<?xml version="1.0" encoding="UTF-8" ?>
    <!DOCTYPE html PUBLIC "-//W3C//DTD XHTML 1.0 Transitional//EN" "http://www.w3.org/TR/xhtml1/DTD/xhtml1-transitional.dtd">
 3@ <html xmlns="http://www.w3.org/1999/xhtml"
        xmlns:f="http://java.sun.com/jsf/core"
        xmlns:h="http://java.sun.com/jsf/html"
        xmlns:ui="http://java.sun.com/jsf/facelets">
7⊖ <ui:composition>
        <h:form>
80
            <h:panelGrid columns="2">
9⊝
                <h:outputLabel value="Author:"/>
10
                <h:inputText id="author" value="#{bookBean.book.author}" required="true">
11⊝
12
                     <f:ajax execute="author" render="errorGrid" event="blur"></f:ajax>
13
                </h:inputText>
14
                <h:outputLabel value="Title:"/>
                <h:inputText value="#{bookBean.book.title}"/>
<h:outputLabel value="Publisher:"/>
15
16
                <h:inputText value="#{bookBean.book.publisher}"/>
<h:outputLabel value="Year:"/>
17
18
                <h:inputText id="year" value="#{bookBean.book.year}">
19⊝
20
                     <f:validateLongRange minimum="1950" maximum="2021"/>
21
                </h:inputText>
22
                <h:outputLabel value="ISBN:"/>
23
                <h:inputText id="isbn" value="#{bookBean.book.isbn}" required="true"/>
24
                <h:outputLabel/>
                <h:commandButton action="#{bookBean.add}" value="Add book"/>
25
26
27
            </h:panelGrid>
            <h:panelGrid columns="2" id="errorGrid">
28⊖
29
                     <h:outputLabel/>
30
                     <h:message for="year"/>
31
                     <h:outputLabel/>
                     <h:message for="isbn"/>
32
33
                     <h:outputLabel/>
34
                     <h:message for="author"/>
35
            </h:panelGrid>
36
        </h:form>
37 </ui:composition>
38
39 </html>
```

bookLogin.xhtml

```
<?xml version="1.0" encoding="UTF-8" ?>
    <!DOCTYPE html PUBLIC "-//W3C//DTD XHTML 1.0 Transitional//EN" "http://www.w3.org/TR/xhtml1/DTD/xhtml1-transitional.dtd">
 3@ <html xmlns="http://www.w3.org/1999/xhtml"
        xmlns:f="http://java.sun.com/jsf/core"
        xmlns:h="http://java.sun.com/jsf/html"
        xmlns:ui="http://java.sun.com/jsf/facelets"
        xmlns:c="http://java.sun.com/jsp/jstl/core
xmlns:o="http://omnifaces.org/ui"
 8
        xmlns:of="http://omnifaces.org/functions">
 9
10
11⊖ <ui:composition>
13⊖
            <h:panelGrid columns="2">
                 <h:outputLabel value="Username:"/>
14
                 <h:inputText value="#{userBean.user.username}"/>
<h:outputLabel value="Password:"/>
15
16
                 <h:inputSecret value="#{userBean.user.password}"/>
17
                 <h:outputLabel/>
18
19
                 <h:commandButton action="#{userBean.login}" value="Login"/>
            </h:panelGrid>
21
        </h:form>
22
23
24 </ui:composition>
25
   </html>
26
```

bodyBooks.xhtml

```
<?xml version="1.0" encoding="UTF-8" ?>
   <!DOCTYPE html PUBLIC "-//W3C//DTD XHTML 1.0 Transitional//EN" "http://www.w3.org/TR/xhtml1/DTD/xhtml1-transitional.dtd">
3@ <html xmlns="http://www.w3.org/1999/xhtml"
       xmlns:f="http://java.sun.com/jsf/core"
xmlns:h="http://java.sun.com/jsf/html"
xmlns:ui="http://java.sun.com/jsf/facelets">
5
7⊖ <ui:composition>
       <h:form>
80
       <h:dataTable id="booksTable" value="#{bookBean.all}" var="book">
9⊝
10⊝
           <h:column>
11⊝
               <f:facet name="header">
12
                   <h:outputText value="id" />
13
                </f:facet>
14
               <h:outputText value="#{book.id}"/>
15
           </h:column>
16⊖
           <h:column>
17⊝
               <f:facet name="header">
                   <h:outputText value="author" />
18
               </f:facet>
19
               <h:outputText value="#{book.author}"/>
20
21
           </h:column>
22⊝
           <h:column>
23⊝
               <f:facet name="header">
24
                   <h:outputText value="title" />
25
               </f:facet>
26
               <h:outputText value="#{book.title}"/>
           </h:column>
27
28⊝
           <h:column>
               <f:facet name="header">
29⊖
30
                   <h:outputText value="publisher" />
               </f:facet>
31
               <h:outputText value="#{book.publisher}"/>
32
33
           </h:column>
34⊝
           <h:column>
35⊝
              <f:facet name="header">
36
                   <h:outputText value="isbn" />
               </f:facet>
37
               <h:outputText value="#{book.isbn}"/>
38
           </h:column>
39
40⊝
           <h:column>
41⊝
               <f:facet name="header">
42
                   <h:outputText value="action" />
43
               </f:facet>
44⊝
               <h:commandLink action="#{bookBean.delete}">
                   45
46
                   </h:commandLink>
47
           </h:column>
48
       </h:dataTable>
49
50
       </h:form>
51 </ui:composition>
52
53
  </html>
```

bodySearchBooks.xhtml

```
<?xml version="1.0" encoding="UTF-8" ?>
   <!DOCTYPE html PUBLIC "-//W3C//DTD XHTML 1.0 Transitional//EN" "http://www.w3.org/TR/xhtml1/DTD/xhtml1-transitional.dtd">
3@ <html xmlns="http://www.w3.org/1999/xhtml"
       xmlns:f="http://java.sun.com/jsf/core"
       xmlns:h="http://java.sun.com/jsf/html"
       xmlns:ui="http://java.sun.com/jsf/facelets">
7⊖ <ui:composition>
       <h:form>
80
       <h:inputText id="search" value="#{bookBean.searchText}">
9⊜
           <f:ajax execute="search" render="booksTable" event="keyup"></f:ajax>
10
       </h:inputText>
11
12⊖
       <h:dataTable id="booksTable" value="#{bookBean.booksByTitle}" var="book">
13⊝
          <h:column>
14⊝
               <f:facet name="header">
                  <h:outputText value="id" />
15
               </f:facet>
16
              <h:outputText value="#{book.id}"/>
17
          </h:column>
18
19⊖
          <h:column>
20⊝
              <f:facet name="header">
21
                  <h:outputText value="author" />
22
               </f:facet>
23
              <h:outputText value="#{book.author}"/>
24
          </h:column>
25⊝
          <h:column>
26⊖
             <f:facet name="header">
                  <h:outputText value="title" />
27
              </f:facet>
28
              <h:outputText value="#{book.title}"/>
29
          </h:column>
30
31⊝
          <h:column>
              <f:facet name="header">
32⊖
33
                  <h:outputText value="publisher" />
34
              </f:facet>
35
              <h:outputText value="#{book.publisher}"/>
36
          </h:column>
37⊝
          <h:column>
              <f:facet name="header">
38⊜
                  <h:outputText value="isbn" />
39
              </f:facet>
40
41
              <h:outputText value="#{book.isbn}"/>
          </h:column>
42
          <h:column>
43⊝
44⊝
              <f:facet name="header">
45
                  <h:outputText value="action" />
               </f:facet>
46
               <h:commandLink action="#{bookBean.delete}">
47⊝
                  48
49
50
                  </h:commandLink>
           </h:column>
51
52
       </h:dataTable>
       </h:form>
54 </ui:composition>
55
56 </html>
```