



UFJF - Departamento de Computação

(DCC156) Laboratório de Programação IV

Aula 17

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www.ufjf.br/ciro_barbosa

Servlet Filtering

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Interfaces in the javax.servlet package

- Filter
- FilterConfig
- FilterChain

The Filter Interface

- ✓ `public void init(FilterConfig filterConfig)`
- ✓ `public void doFilter(HttpServletRequest request, HttpServletResponse response, FilterChain chain)`
- ✓ `public void destroy()`

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The Filter Interface

- ✓ A filter starts its life when its `init` method is called by the servlet container.
- ✓ The `doFilter` method is where the filtering is performed. The servlet container calls the `doFilter` method every time a user requests a resource, such as a servlet, to which the filter is mapped.
- ✓ The servlet container calls the `destroy` method to tell the filter that it will be taken out of service.

The FilterConfig Interface:

Allows you to obtain the ServletContext object and pass initialization values to the filter through its initial parameters, which you define in the deployment descriptor when declaring the filter.

- ✓ `public String getFilterName()`
- ✓ `public String getInitParameter(String parameterName)`
- ✓ `public java.util.Enumeration getInitParameterNames()`
- ✓ `public ServletContext getServletContext()`

The FilterChain Interface

Filters use the FilterChain object to invoke the next filter in the chain, or, if the filter is the last in the chain, to invoke the next resource (servlet).

- ✓ `public void doFilter(HttpServletRequest request, HttpServletResponse response)`

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```
import java.io.IOException;
import javax.servlet.Filter;
import javax.servlet.FilterChain;
import javax.servlet.FilterConfig;
import javax.servlet.ServletException;
import javax.servlet.ServletRequest;
import javax.servlet.ServletResponse;

public class BasicFilter implements Filter {
    private FilterConfig filterConfig;
    ...
}
```

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```
public void init(FilterConfig filterConfig) throws ServletException {  
    System.out.println("Filter initialized");  
    this.filterConfig = filterConfig;  
}
```

```
public void destroy() {  
    System.out.println("Filter destroyed");  
    this.filterConfig = null;  
}
```

```
public void doFilter(ServletRequest request, ServletResponse response, FilterChain chain)  
    throws IOException, ServletException {  
    System.out.println("doFilter");  
    chain.doFilter(request, response);  
}
```


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The Deployment Descriptor

```
<web-app>
  <!-- Define servlet-mapped and path-mapped filters -->
  <filter>
    <filter-name> Basic Filter </filter-name>
    <filter-class> BasicFilter </filter-class>
  </filter>

  <!-- Define filter mappings for the defined filters -->
  <filter-mapping>
    <filter-name> Basic Filter </filter-name>
    <servlet-name> FilteredServlet </servlet-name>
  </filter-mapping>
```

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The Deployment Descriptor

<!-- Listeners aparecem depois dos filtros

```
<servlet>  
  <servlet-name> FilteredServlet </servlet-name>  
  <servlet-class> FilteredServlet </servlet-class>  
</servlet>
```

```
</web-app>
```

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- ✓ Um filtro pode ser aplicado a mais de um Servlet

- ✓ Um Servlet pode ter mais de um filtro

- ✓ É possível mapear filtros para uma URL

```
<!-- Define filter mappings for the defined filters -->  
<filter-mapping>  
    <filter-name> Logging Filter </filter-name>  
    <url-pattern>/servlet/FilteredServlet</url-pattern>  
</filter-mapping>
```

- ✓ As an alternative, you can use `/*` to make the filter work for all static and dynamic resources
 <url-pattern>/*</url-pattern>

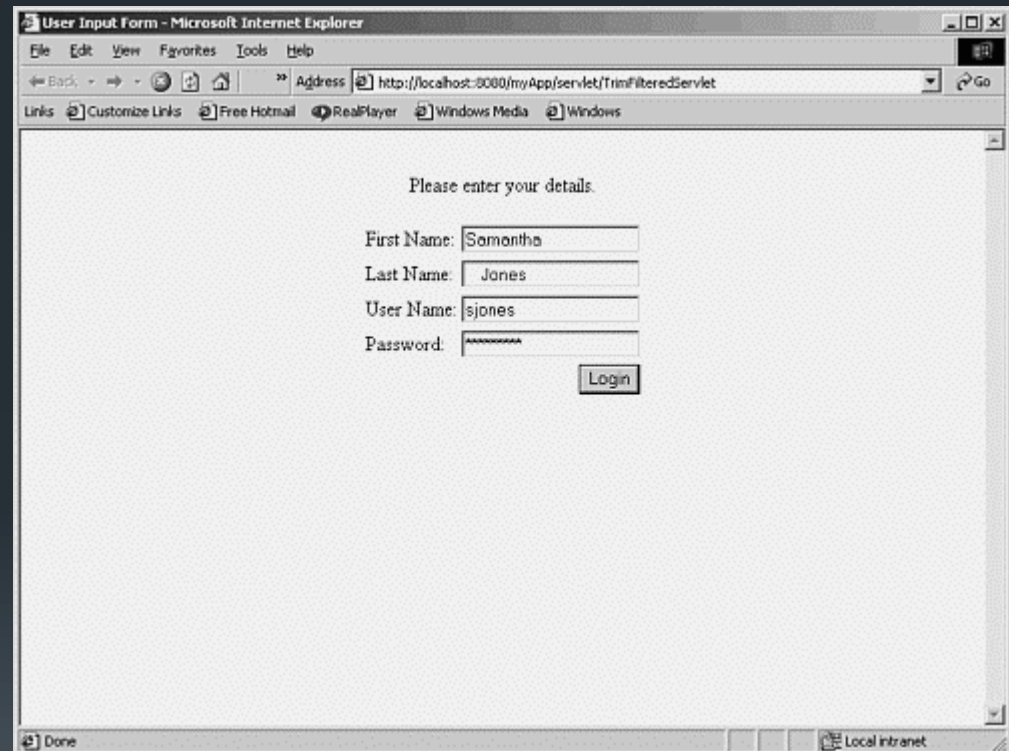
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Exercício:

- ✓ Baixar o arquivo de exemplo (ZIP) do site da disciplina.
- ✓ Aplica o exemplo ao exercício da aula 09 (Guestbook).
- ✓ Apresentar a aplicação implantada ao professor.



Referências

[1] Java for the Web with Servlets, JSP, and EJB: A Developer's Guide to J2EE Solutions, By Budi Kurniawan, Publisher : New Riders Publishing
April 12, 2002, ISBN : 0-7357-1195-X , Pages : 976