JAVASERVER FACES COURSE

COMPONENTS IN JSF

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Global
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Hello, Ubaldo Acosta greets you. Welcome again. I hope you're ready to start with this lesson.

We are going to study the topic of Components in JavaServer Faces.

Are you ready? OK let's go!

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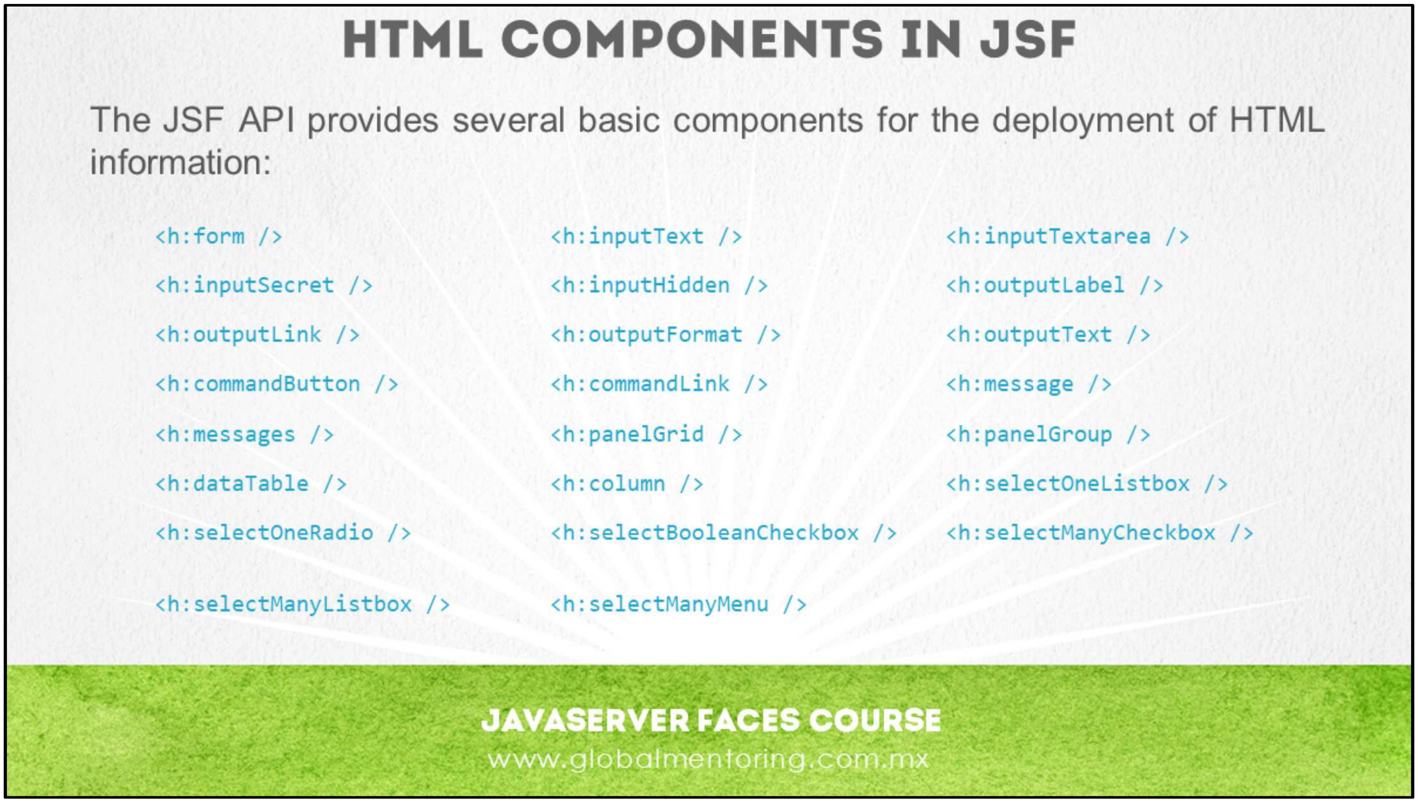

HTML COMPONENTS IN JSF

The JSF API provides several basic components for the deployment of HTML information:

```
<h:form />
<h:inputSecret />
<h:outputLink />
<h:commandButton />
<h:messages />
<h:dataTable />
<h:selectOneRadio />
<h:selectManyListbox />
<h:inputText />
<h:inputHidden />
<h:outputFormat />
<h:commandLink />
<h:panelGrid />
<h:column />
<h:selectBooleanCheckbox />
<h:selectManyMenu />
<h:inputTextarea />
<h:outputLabel />
<h:outputText />
<h:message />
<h:panelGroup />
<h:selectOneListbox />
<h:selectManyCheckbox />
```

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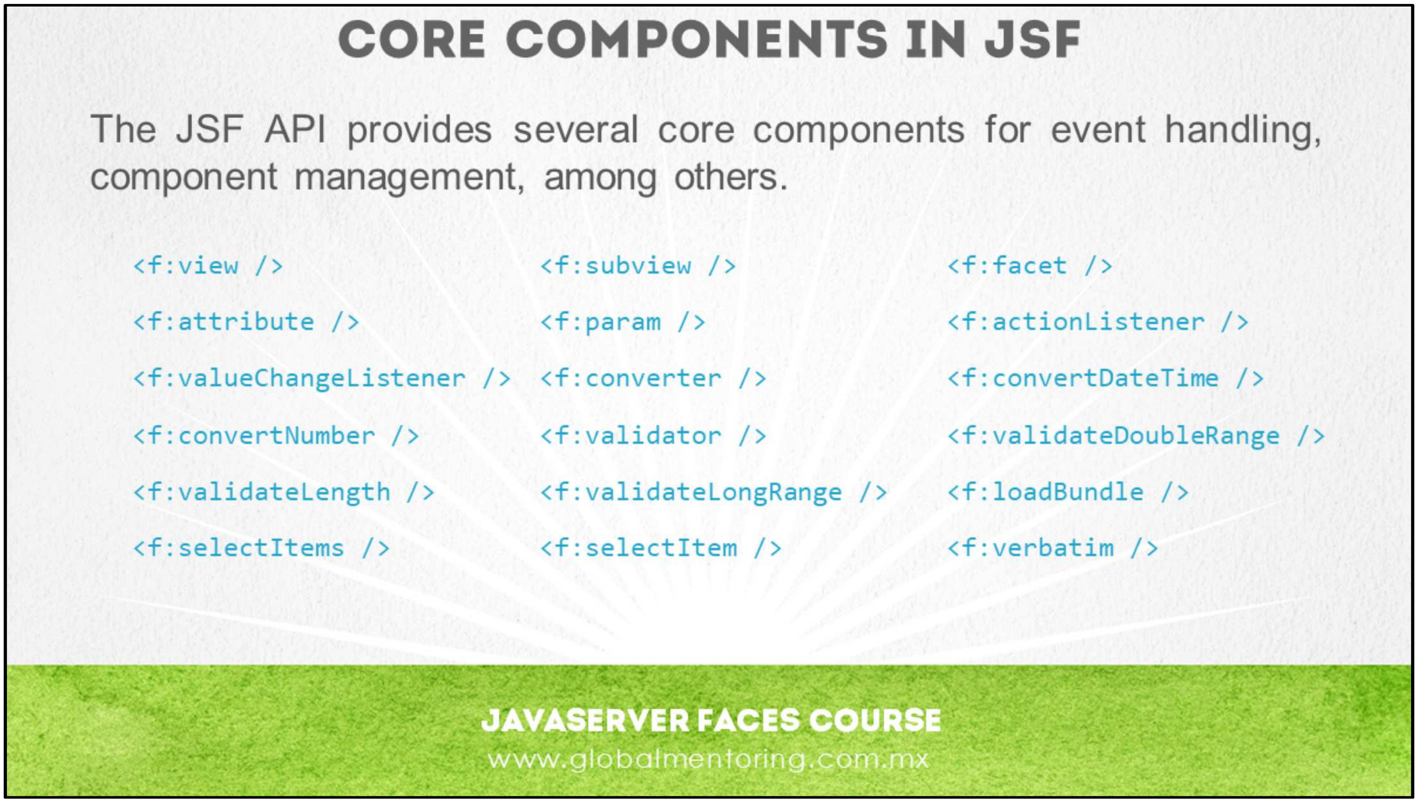
The JSF API provides several basic components for the deployment of HTML information.

The list of JSF HTML components is extensive. You can review the JSF API to have complete detail.

http://icursos.net/cursos/JSF/referencias/jsf-componentes.html



CORE COMPONENTS IN JSF

The JSF API provides several core components for event handling, component management, among others.

```
<f:view />
<f:attribute />
<f:valueChangeListener />
<f:convertNumber />
<f:validateLength />
<f:selectItems />
<f:subview />
<f:param />
<f:converter />
<f:validator />
<f:validateLongRange />
<f:selectItem />
<f:facet />
<f:actionListener />
<f:convertDateTime />
<f:validateDoubleRange />
<f:loadBundle />
<f:verbatim />
```

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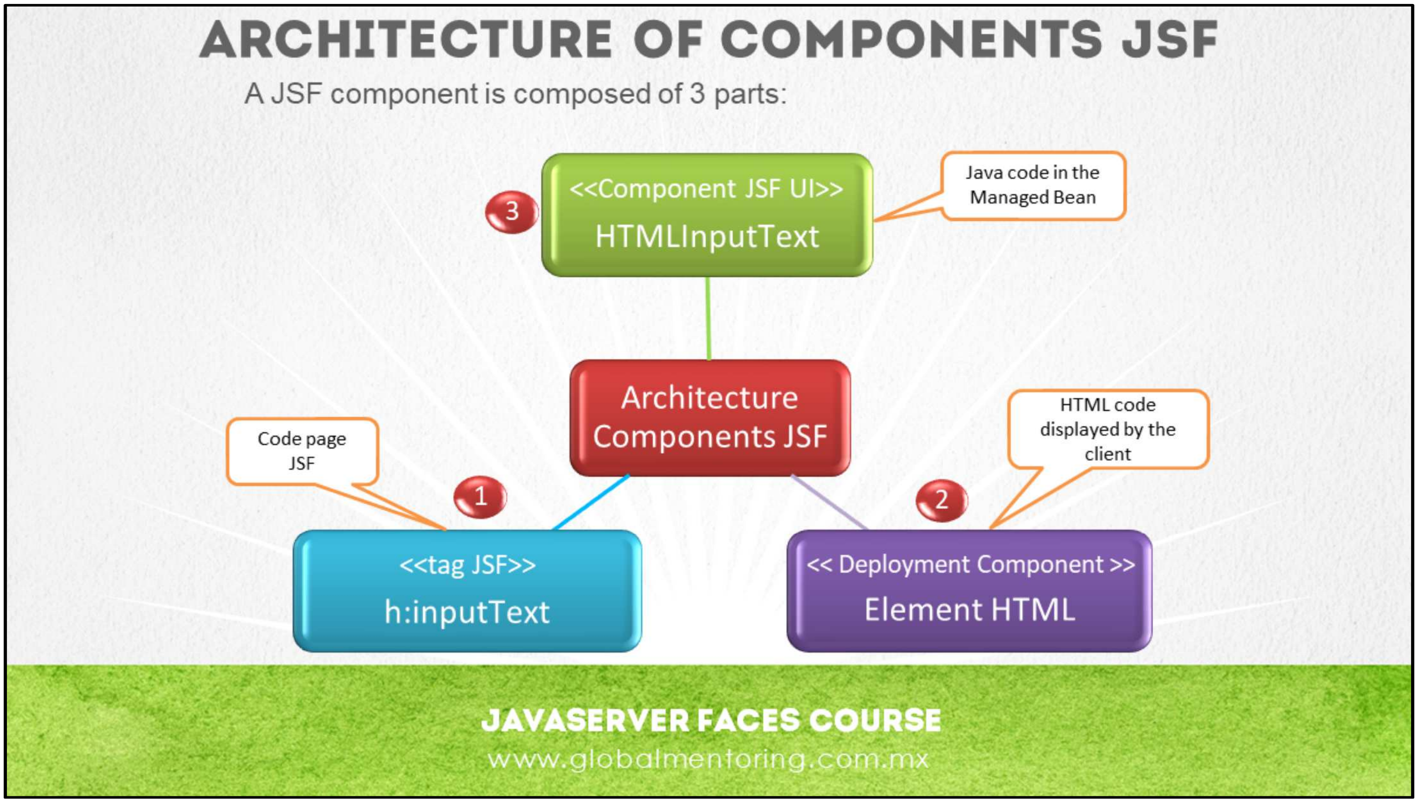
http://icursos.net/cursos/JSF/referencias/jsf-componentes.html



ARCHITECTURE OF COMPONENTS JSF
A JSF component is composed of 3 parts:
3
<<Component JSF UI>>
HTMLInputText
Java code in the Managed Bean
Architecture Components JSF
Code page JSF
1
HTML code displayed by the client
2
<<tag JSF>>
h:inputText
<< Deployment Component >>
Element HTML
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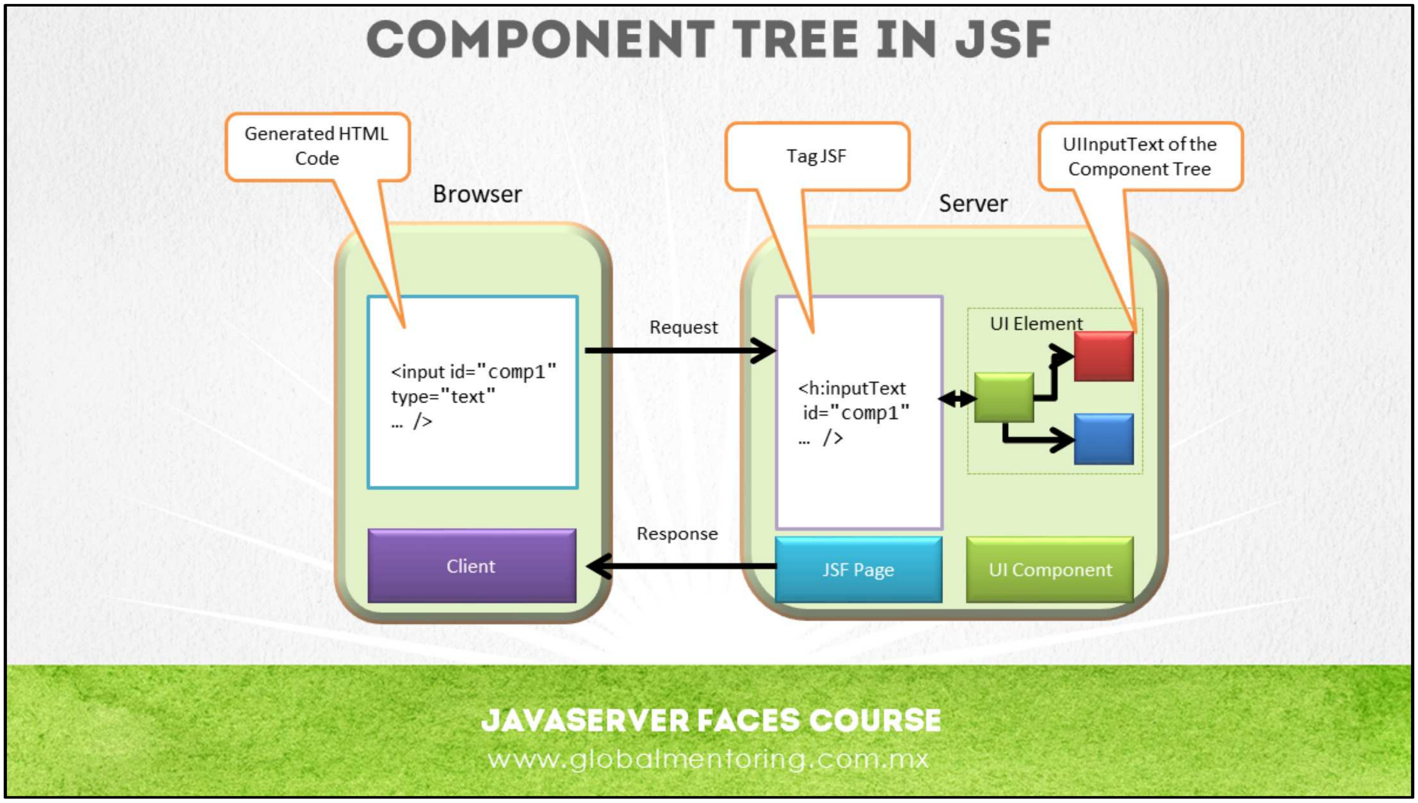
The components in JSF are more than HTML tags. These components are very similar to Swing-type components for desktop applications. There are three essential parts in a JSF component:

1. JSF tag: This is the code of the JSF page. This is where we can configure events, labels with internationalization, personalization of the appearance of the component, among other issues.

2. Deployment Component: This element represents the code that the client finally displays, in case of being a client with a web browser what is displayed is HTML (render kit JSF by default).

3. Java UI component: This class represents the component of the JSF page but on the Java code side. In phase 1 of the life cycle of the JSF (sight restoration), is where the JSF tag is mapped with a JSF UI Component by adding it to the Component Tree of the view.



We can see in the figure the flow of a JSF application, which is oriented to manage the code from the server.

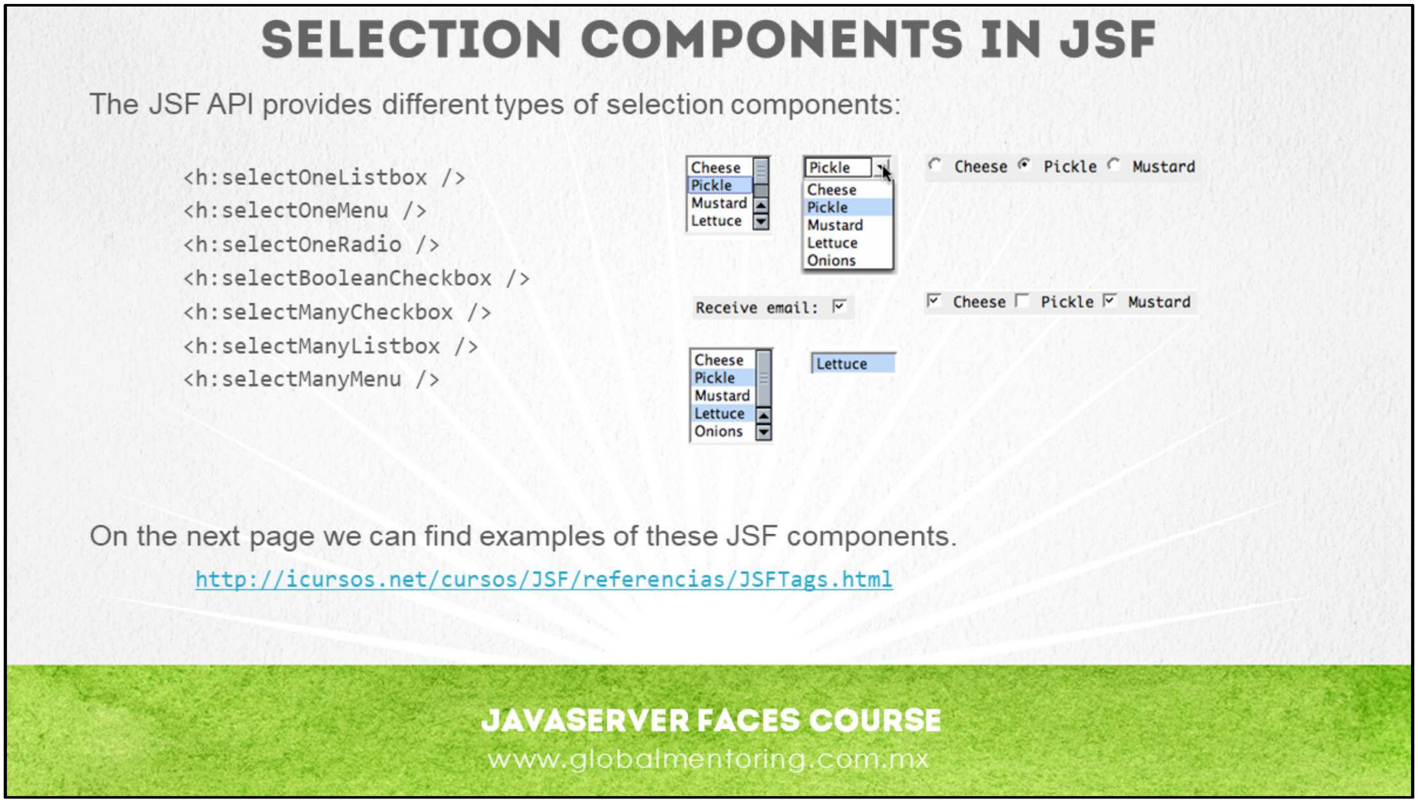
In the flow we can see that the client (browser) only receives the HTML code generated by the server.

Once the client makes a new request to the server, the component tree is synchronized, that is, the code of the JSF tags are converted / updated to their respective JSF UI component.

For example, the component h: inputText becomes the UIInputText component, which can be manipulated directly from a Managed Bean.

Once the phases of the JSF life cycle have been completed, the response is sent back to the client, finally generating the HTML response.

The component tree has a very short lifetime, usually during the sending and response of the request (request-response).



SELECTION COMPONENTS IN JSF

The JSF API provides different types of selection components:

```
<h:selectOneListbox />
<h:selectOneMenu />
<h:selectOneRadio />
<h:selectBooleanCheckbox />
<h:selectManyCheckbox />
<h:selectManyListbox />
<h:selectManyMenu />
```

On the next page we can find examples of these JSF components.

http://icursos.net/cursos/JSF/referencias/JSFTags.html

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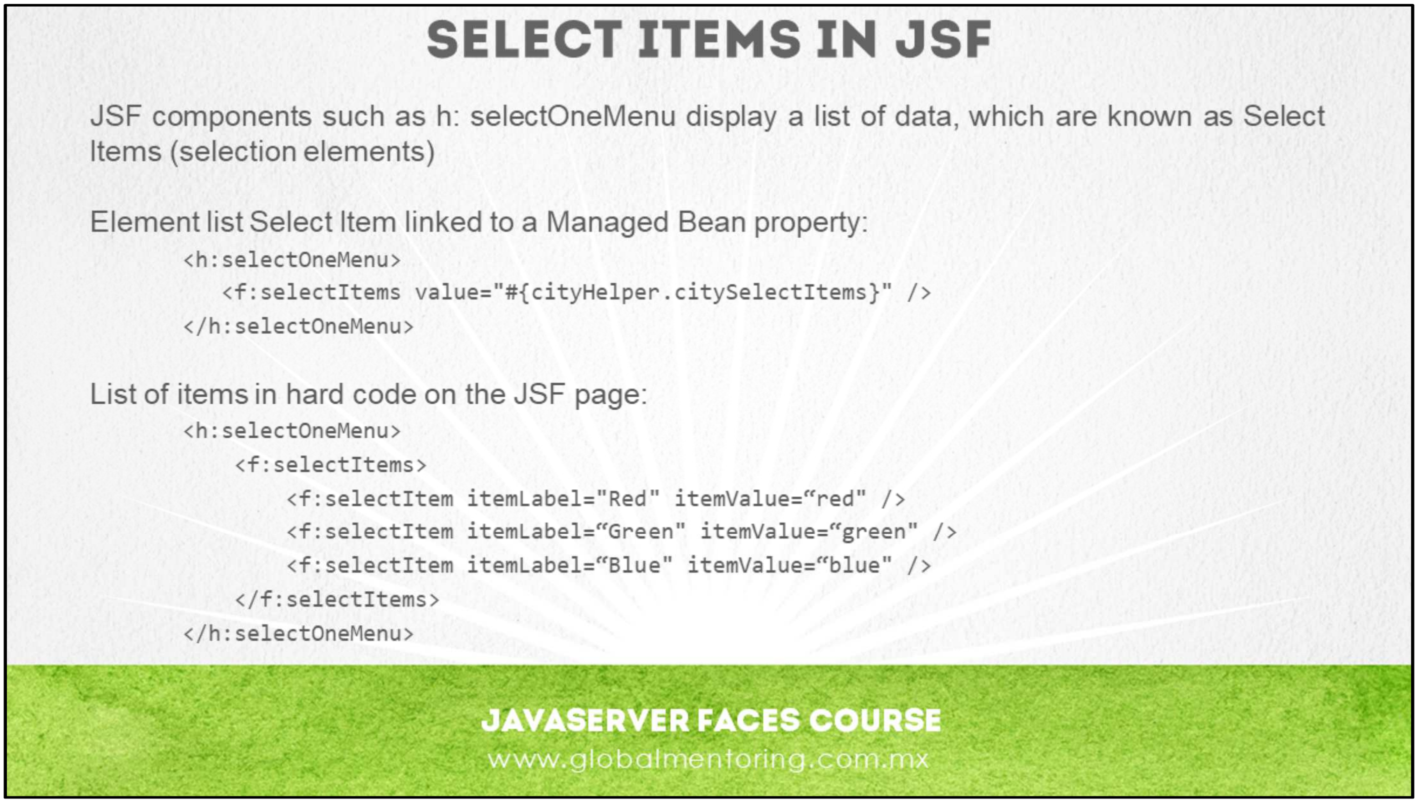
The JSF API provides different types of selection components.

One of the most used components is that of h: selectOneMenu, because it generates an HTML select element, with its respective options.

On the corejsf page we can find a very complete list of the JSF elements and a visual example of each component.

http://icursos.net/cursos/JSF/referencias/JSFTags.html



SELECT ITEMS IN JSF

JSF components such as h: selectOneMenu display a list of data, which are known as Select Items (selection elements)

Element list Select Item linked to a Managed Bean property:

```
<h:selectOneMenu>
   <f:selectItems value="#{cityHelper.citySelectItems}" />
</h:selectOneMenu>
```

List of items in hard code on the JSF page:

```
<h:selectOneMenu>
    <f:selectItems>
        <f:selectItem itemLabel="Red" itemValue=“red" />
        <f:selectItem itemLabel=“Green" itemValue=“green" />
        <f:selectItem itemLabel=“Blue" itemValue=“blue" />
    </f:selectItems>
</h:selectOneMenu>
```

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JSF components such as h: selectOneMenu display a list of data, which are known as Select Items.

The select items can be created in different ways, either from a list of Select Items as a property of the Managed Bean or as a list of selectItems labels with each of its elements.

When the Select Items are generated from the Managed bean, it is common that the list is obtained from a query to a database.

Instead of directly accessing the database layer, it is advisable to add one more layer between the presentation layer and the data layer known as the service layer.

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