JSF

-JavaServer Faces (JSF) is used as a Component-based web framework that implements a Model-View-Controller design pattern for developing web applications.

a)Java Server Faces (JSF) is a Java-based web application framework intended to simplify development integration of web-based user interfaces. JavaServer Faces is a standardized display technology, which was formalized in a specification through the Java Community Process.

Two scope are there,Request scope and session Scope.
The request scope is very useful in any web application when you need a single interaction per HTTP request-response cycle. However, when you need objects visible for any HTTP request-response cycle that belongs to a user session, then you need a session scope; in this case, the bean lives as long as the HTTP session lives. The session scope allows you to create and bind objects to a session. It gets created upon the first HTTP request involving this bean in the session and gets destroyed when the HTTP session is invalidated. The request scope is present in JSF and CDI and functions in the same way. It can be used for non-rich AJAX and non-AJAX requests.

b) JavaServer Faces application framework manages lifecycle phases automatically for simple applications and also allows you to manage that manually. The lifecycle of a JavaServer Faces application begins when the client makes an HTTP request for a page and ends when the server responds with the page.It is divided into two main phases:
-Execute Phase
-Render Phase
In execute phase, when first request is made, application view is built or restored. For other subsequent requests other actions are performed like request parameter values are applied, conversions and validations are performed for component values, managed beans are updated with component values and application logic is invoked.It consists of six phases which are as follows –
-Restore view phase
-Apply request values phase; process events
-Process validations phase; process events
-Update model values phase; process events
-Invoke application phase; process events
-Render response phase

When a client requests for a JavaServer Faces page, the JavaServer Faces implementation begins the restore view phase. In this phase, JSF builds the view of the requested page, wires event handlers and validators to components in the view and saves the view in the FacesContext instance.

C)

First Name	
Middle Name	
Last Name	
Faculty	Management ⌄
Program: BBA ⌄	
Add Student	

First Name	Middle Name	Last Name	Faculty	Program	Edit	Delete

Save student

END

- Aakash Deep