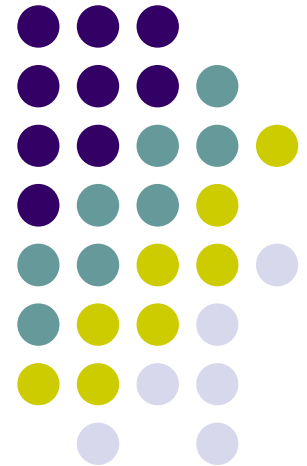


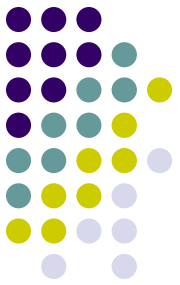
# JSF (Java Server Faces)

Melih Sakarya

[www.melihsakarya.com](http://www.melihsakarya.com)

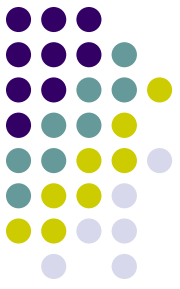
[melih.sakarya@gmail.com](mailto:melih.sakarya@gmail.com)





# JSF Nedir ?

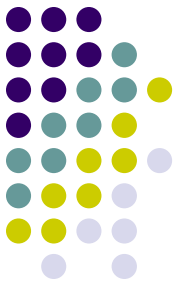
- MVC (Model-View-Controller)
- JSR Standartı (JSR-127, JSR 252)
- Component Oriented
- Event Driven
- Farklı JSF implementasyonları
- 3. parti JSF bileşenleri (Ice Faces, Rich Faces, Woodstock)



# JSF' in ortaya çıkışı

- 2001 ortaları
  - Amy Fowler
- 2002 yılında
  - Ed Burns
  - Craig McClanahan

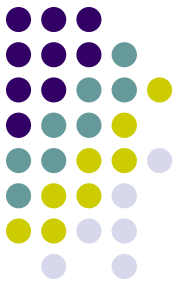
# JSF Gelişimi



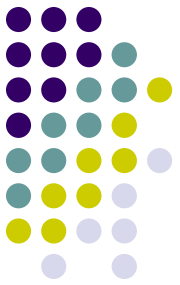
- JSF 2.0 ...
- JSF 1.2 (11 may 2006)
- JSF 1.1 (27 may 2004)
- JSF 1.0 (11 mar 2004)

# Specification

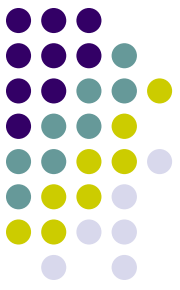
- JSR127 – JSF 1.1
- JSR252 – JSF 1.2



# Gerçeklemeler (Implementation)

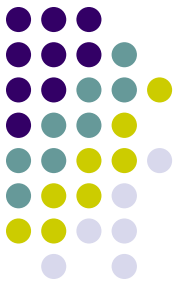


- MyFaces (Apache)
- Sun RI (Reference Implementation)
- ...



# Neden JSF

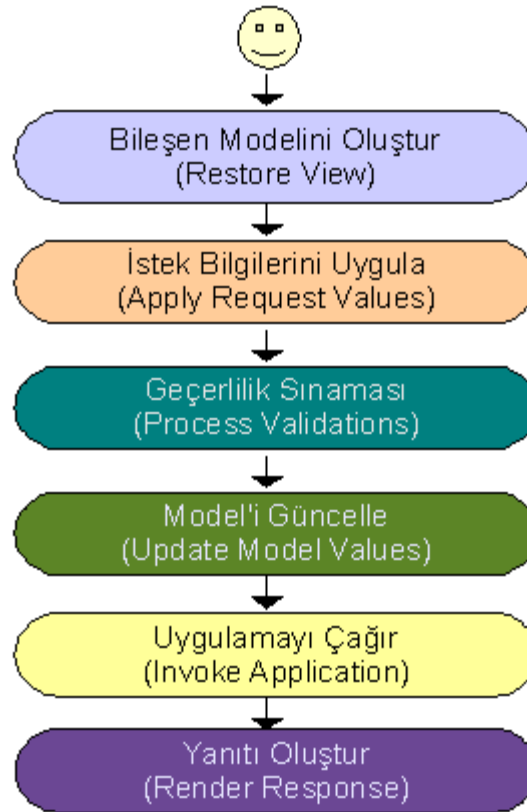
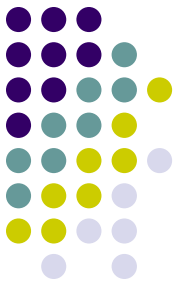
- Standart olması
- RAD desteđi
- Bileşen mimarisinin kolaylığı
- Farklı grupların bileşen desteđi
- Gelişmiş EL (Expression Language desteđi)



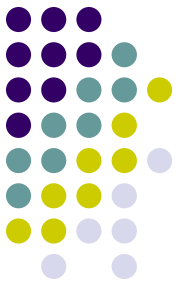
# JSF Yaklaşımı

- Bileşen yönelimli
- Olay(event) tabanlı
- Bileşenlere olay(event) tanımlama
- Bileşenleri Java objelerine erişim (EL desteği ile)

# LifeCycle Fazları

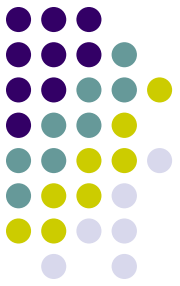


# JSF Bileşenleri



- core
  - Validation, conversion, event handling ...
  - 18 standart core tag
- html
  - presentation (sunum)
  - 25 standart html tag

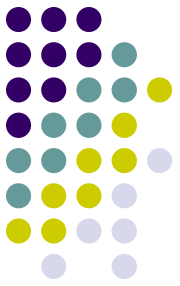
# html bileşenleri



```
<%@ taglib uri="http://java.sun.com/jsp/html" prefix="h" %>
```

# html bileşenleri

- `h:inputText`
- `h:outputText`
- `h:commandButton`
- `h:dataTable`
- `h:column`
- ...

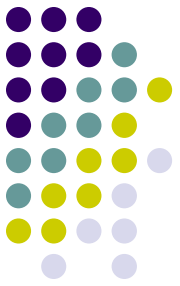


# core bileşenler



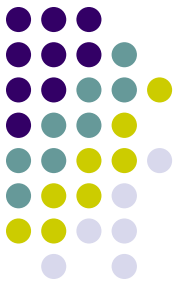
<%@ taglib uri="http://java.sun.com/jsp/core" prefix="f" %>

# core bileşenler

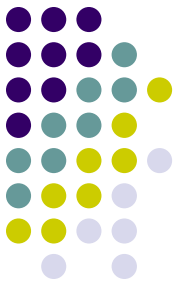


- f:view
- f:convertDateTime
- f:selectItem
- f:validateLength
- ...

# Bileşenlerin render edilmesi



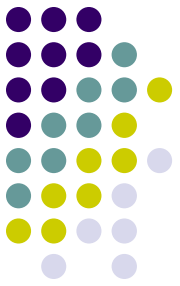
- `<h:inputText id="name" value="aaa" />`
- `<input type="text" id="name" value="aaa" />`



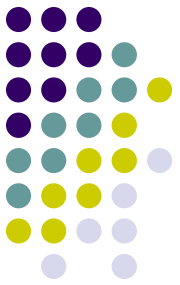
# Basit bir JSF sayfası

```
<%@ taglib uri="http://java.sun.com/jsf/html" prefix="h" %>
<%@ taglib uri="http://java.sun.com/jsf/core" prefix="f" %>
<html>
  <head>
    <title></title>
  </head>
  <body>
    <f:view>
      <h:outputText value="deneme" />
    </f:view>
  </body>
</html>
```

# EL (Expression Language)

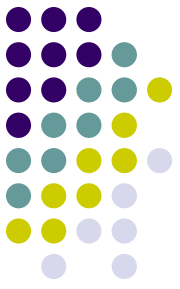


`#{managedBeanAdi.tribute}`



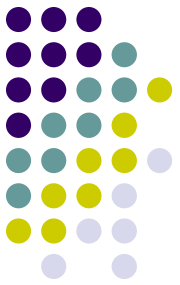
# Basit bir JSF sayfası

```
<%@ taglib uri="http://java.sun.com/jsf/html" prefix="h" %>
<%@ taglib uri="http://java.sun.com/jsf/core" prefix="f" %>
<html>
  <head>
    <title></title>
  </head>
  <body>
    <f:view>
      <h:outputText value="#{ornek.deneme}" />
    </f:view>
  </body>
</html>
```



# Managed Bean

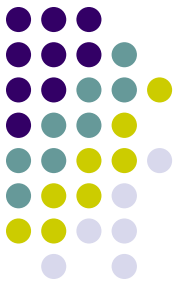
- Basit Java sınıflarıdır.
- Herhangi bir sınıfı miras almasına gerek yoktur.
- JSF tarafında otomatik oluşturulurlar.
- JSF context' i içerisinde erişilebilirler
- faces-config.xml içerisinde tanımlanmalıdırlar



# Managed Bean

- JSF Manage Bean Scope
  - Session
  - Application
  - Request
- EL (Expression Language) ile erişilebilirler.

# Örnek Managed Bean

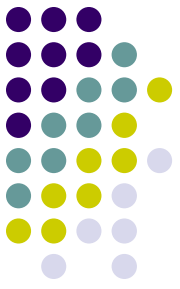


```
package com.vardar.seminer;

public class Ornek {
    private String ad;

    public String getAd() {
        return ad;
    }

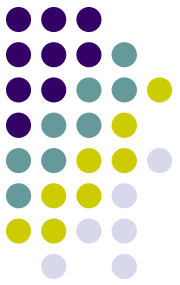
    public void setAd(String ad) {
        this.ad = ad;
    }
}
```



# faces-config.xml tanımı

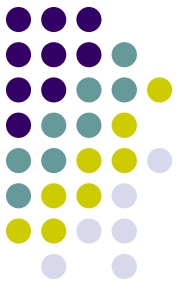
```
<managed-bean>  
  <managed-bean-name>ornek</managed-bean-name>  
  <managed-bean-class>  
    com.vardar.seminer.Ornek  
  </managed-bean-class>  
  <managed-bean-scope>session</managed-bean-scope>  
</managed-bean>
```

# Örnek JSF Form

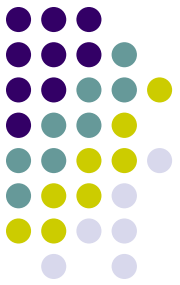


```
<f:view>  
  <h:form id="kayitFormu">  
    <h:inputText value="#{ornek.ad}" />  
    <h:commandButton action="#{ornek.kayit}" value="Kayit" />  
  </h:form>  
</f:view>
```

# Örnek JSF Form



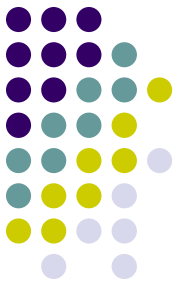
```
package com.vardar.seminer;
public class Ornek {
    public Ornek(){
        this.ad="Melih";
    }
    private String ad;
    public String getAd() {
        return ad;
    }
    public void setAd(String ad) {
        this.ad = ad;
    }
    public void kayit(){
        System.out.println(ad + " adina kayit basarili olarak yapildi");
    }
}
```



# h:selectOneMenu

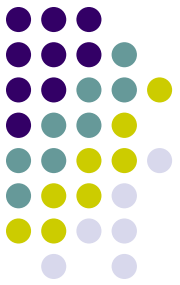
```
<h:selectOneMenu value="#{ornek.cinsiyet}" >  
  <f:selectItem itemLabel="Bay" itemValue="bay"/>  
  <f:selectItem itemLabel="Bayan" itemValue="bayan"/>  
</h:selectOneMenu>
```

# SelectItems



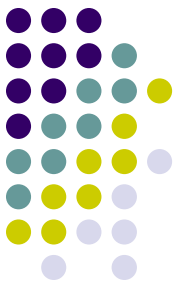
```
SelectItem s1 = new SelectItem("34", "İstanbul");  
SelectItem s2 = new SelectItem("35", "İzmir");  
SelectItem s3 = new SelectItem("06", "Ankara");
```

```
sehirler.add(s1);  
sehirler.add(s2);  
sehirler.add(s3);
```



# ValueChangeListener

```
<h:selectOneMenu value=""  
    valueChangeListener="#{test.processValueChange}"  
    onchange="this.form.submit()">  
    <f:selectItem itemValue="1" itemLabel="A"/>  
    <f:selectItem itemValue="2" itemLabel="B"/>  
    <f:selectItem itemValue="3" itemLabel="C"/>  
</h:selectOneMenu>
```

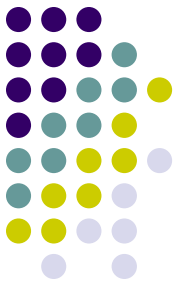


# ValueChangeEvent

```
import javax.faces.event.AbortProcessingException;  
import javax.faces.event.ValueChangeEvent;
```

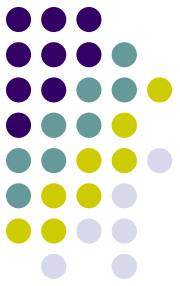
```
public class Test {  
  private String deger;  
  public String getDeger() {  
    return deger;  
  }  
  public void setDeger(String deger) {  
    this.deger = deger;  
  }  
  public void processValueChange(ValueChangeEvent event) {  
    System.out.println("event.getNewValue() = " +  
event.getNewValue());  
  }  
}
```

# SelectItems



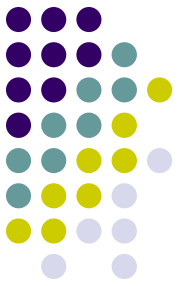
```
<h:selectOneMenu>  
  <f:selectItems value="#{test.list}"/>  
</h:selectOneMenu>
```

# SelectItems



```
public class Test {
    public Test(){
        SelectItem s1 = new SelectItem("1","A");
        SelectItem s2 = new SelectItem("2","B");
        SelectItem s3 = new SelectItem("3","C");
        list.add(s1);
        list.add(s2);
        list.add(s3);
    }
    List<SelectItem> list = new ArrayList<SelectItem>();
    public List<SelectItem> getList() {
        return list;
    }
    public void setList(List<SelectItem> list) {
        this.list = list;
    }
}
```

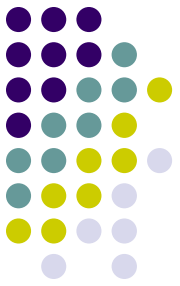
# PanelGrid



```
<h:panelGrid columns="3">
  <h:outputLabel for="kullaniciAdi" value="Kullanıcı Adı"/>
  <h:inputText id="kullaniciAdi" value="#{kullaniciBean.rumuz}"/>
  <h:message for="kullaniciAdi"></h:message>

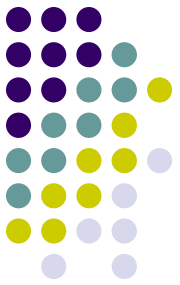
  <h:outputLabel for="sifre" value="Şifre"/>
  <h:inputSecret id="sifre" value="#{kullaniciBean.sifre}"/>
  <h:message for="sifre"></h:message>
</h:panelGrid>
<h:commandButton value="Giris" action="#{kullaniciBean.sistemeGir}"/>
```

# DataTable



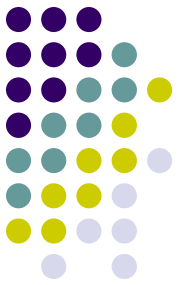
```
<h:dataTable value="#{table.kullaniciListe}" var="kullanici">
  <h:column>
    <h:outputText value="#{kullanici.ad}"/>
  </h:column>
  <h:column>
    <h:outputText value="#{kullanici.soyad}"/>
  </h:column>
</h:dataTable>
```

# DataTable value binding



```
public class Table {  
  
    public Table(){  
        kullanıcıListe.add(new KullaniciPojo("Melih","Sakarya",27));  
        kullanıcıListe.add(new KullaniciPojo("Umit","Vardar",38));  
        kullanıcıListe.add(new KullaniciPojo("Pinar","Cayirlioglu",24));  
    }  
  
    List<KullaniciPojo> kullanıcıListe = new ArrayList<KullaniciPojo>();  
    public List<KullaniciPojo> getKullaniciListe() {  
        return kullanıcıListe;  
    }  
    public void setKullaniciListe(List<KullaniciPojo> kullanıcıListe) {  
        this.kullanıcıListe = kullanıcıListe;  
    }  
}
```

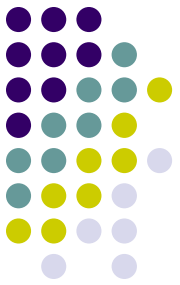
# DataTable pojo



```
public class KullaniciPojo {
    public KullaniciPojo(){
    }
    public KullaniciPojo(String ad, String soyad, Integer yas){
        this.ad = ad;
        this.soyad = soyad;
        this.yas = yas;
    }

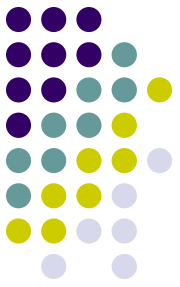
    String ad;
    String soyad;
    Integer yas;
    public String getAd() {
        return ad;
    }
    public void setAd(String ad) {
        this.ad = ad;
    }
    public String getSoyad() {
        return soyad;
    }
    public void setSoyad(String soyad) {
        this.soyad = soyad;
    }
    public Integer getYas() {
        return yas;
    }
    public void setYas(Integer yas) {
        this.yas = yas;
    }
}
```

# Navigation



```
<navigation-rule>
  <from-view-id>/test.jsp</from-view-id>
  <navigation-case>
    <from-outcome>dogru</from-outcome>
    <to-view-id>/basarili.jsp</to-view-id>
  </navigation-case>
  <navigation-case>
    <from-outcome>yanlis</from-outcome>
    <to-view-id>/hata.jsp</to-view-id>
  </navigation-case>
</navigation-rule>
```

# Örnek kullanıcı giriş uygulaması



```
<h:inputText value="#{ornek.kullaniciAdi}" /><br>
```

```
<h:inputSecret value="#{ornek.sifre}" /><br>
```

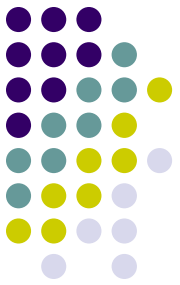
```
<h:commandButton action="#{ornek.giris}" value="Giriş Yap" />
```

# Örnek kullanıcı giriş uygulaması

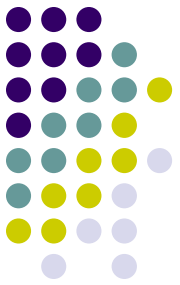


```
public String giris(){  
    if(kullaniciAdi.equals("vardar") && sifre.equals("123456")){  
        return "dogru";  
    }  
    else{  
        return "yanlis";  
    }  
}
```

# Validation



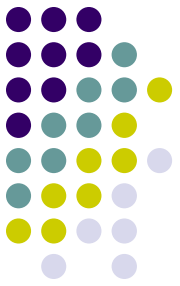
- `<f:validateLength minimum="5" maximum="15" />`
- `<f:validateLongRange minimum="2" maximum="18" />`
- `<f:validateDoubleRange minimum="2.4" maximum="7.18" />`



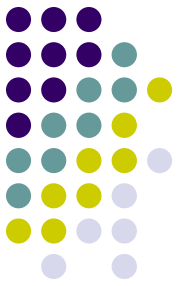
# Converter

```
<h:outputText value="#{table.tarih}" >
    <f:convertDateTime pattern="dd/MM/yyyy"/>
</h:outputText><br/>
<h:outputText value="#{table.tarih}" >
    <f:convertDateTime pattern="dd.MM.yyyy"/>
</h:outputText><br/>
<h:outputText value="#{table.tarih}" >
    <f:convertDateTime pattern="yyyy"/>
</h:outputText><br/>
```

# 3. parti JSF bileşenleri

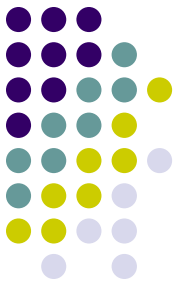


- RichFaces
- MyFaces
- IceFaces
- ADF Faces
- Woodstock



# RichFaces

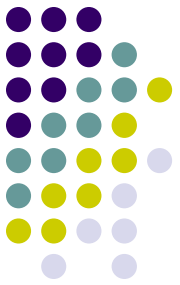
- 3. party JSF component
- Ajax desteği
- A4JSF kütüphanesi
- Zengin bileşen seçenekleri
- JQuery desteği



# RichFaces kurulumu

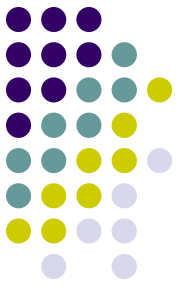
- richfaces-api.jar
- richfaces-impl-3.2.1.jar
- richfaces-ui-3.2.1.jar

# RichFaces kurulumu



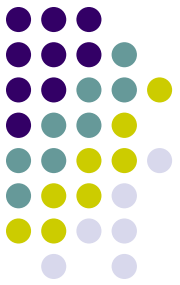
```
<context-param>
  <param-name>org.richfaces.SKIN</param-name>
  <param-value>blueSky</param-value>
</context-param>
<filter>
  <display-name>RichFaces Filter</display-name>
  <filter-name>richfaces</filter-name>
  <filter-class>org.ajax4jsf.Filter</filter-class>
</filter>
<filter-mapping>
  <filter-name>richfaces</filter-name>
  <servlet-name>Faces Servlet</servlet-name>
  <dispatcher>REQUEST</dispatcher>
  <dispatcher>FORWARD</dispatcher>
  <dispatcher>INCLUDE</dispatcher>
</filter-mapping>
```

# RichFaces kullanımı



<%@ taglib uri="http://richfaces.org/a4j" prefix="a4j"%>

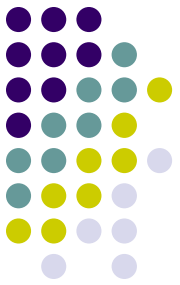
<%@ taglib uri="http://richfaces.org/rich" prefix="rich"%>



# A4J (Ajax for JSF)

```
<h:selectOneMenu value="#{test.deger}">
  <f:selectItem itemValue="1" itemLabel="A"/>
  <f:selectItem itemValue="2" itemLabel="B"/>
  <f:selectItem itemValue="3" itemLabel="C"/>
  <a4j:support event="onchange" reRender="degerAlani"/>
</h:selectOneMenu><br/>
```

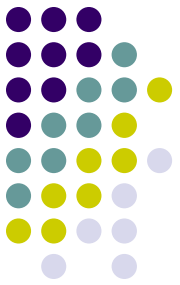
```
<a4j:outputPanel id="degerAlani">
  deger = <h:outputText value="#{test.deger}" id="d"/>
</a4j:outputPanel>
```



# A4J

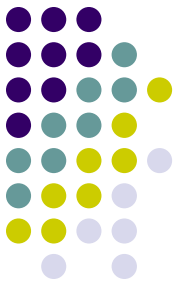
- `<a4j:commandButton />`
- `<a4j:form> </a4j:form>`

# a4j:form



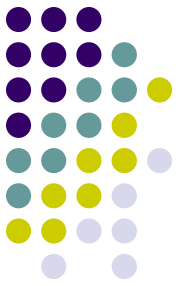
```
<a4j:form>  
  <h:inputText value="#{demo.ad}" /><br/>  
  <h:inputText value="#{demo.soyad}" /><br/>  
  <h:commandButton action="#{demo.kayit}" value="Kayit" />  
  <a4j:commandButton action="#{demo.kayit}" value="Ajax Kayit"/>  
</a4j:form><br/><br/>  
<h:inputText value="#{demo.ad}" />
```

# a4j:form



```
public class Demo {
    private String ad;
    private String soyad;
    public String getAd() {
        return ad;
    }
    public void setAd(String ad) {
        this.ad = ad;
    }
    public String getSoyad() {
        return soyad;
    }
    public void setSoyad(String soyad) {
        this.soyad = soyad;
    }
    public void kayit(){
        System.out.println("kayit yapildi...");
    }
}
```

# Ajax pooling



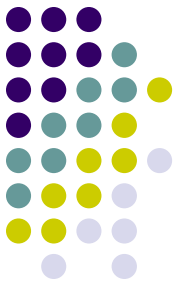
```
<h:form>
```

```
  <a4j:poll id="poll" interval="500" reRender="poll,test" />
```

```
</h:form>
```

```
<h:outputText value="#{demo.tarih}" id="test"/>
```

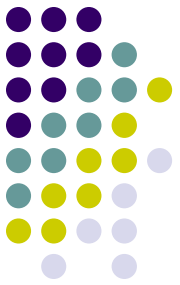
# Ajax pooling



```
import java.util.Date;

public class Demo {
    private Date tarih;

    public Date getTarih() {
        tarih = new Date();
        return tarih;
    }
    public void setTarih(Date tarih) {
        this.tarih = tarih;
    }
}
```

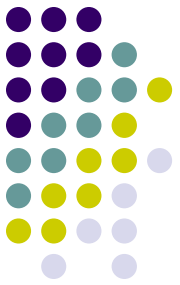


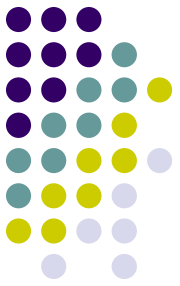
# RichFaces componentleri

- `<rich:calendar />`
- `<rich:calendar popup="false"/>`
- `<rich:dataTable>`
- `<rich:gmap>`
- `<rich:suggestionbox height="" width="">`

# RichFaces demo

<http://livedemo.exadel.com/richfaces-demo>





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