



Display-Action- Response Model for User Interface Requirements

Joy Beatty and Mike Alexander
REV'07
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Typical UI Requirements

***Name (First, Middle Initial, Last)**

Jane K Doe

***Position/Title**

Senior Project Manager

***Email Address**

jdoe@acme.com ☐ Check to receive a confirmation email

***Alternate Email Address**

jane1234@gmail.com

***Daytime Phone** **Ext**

512 555 1212

***Fax**

512 555 1211

***Address 1**

1234 Mockingbird Lane

Address 2

***City** ***State** ***Zip Code**

Austin TX 78756

Submit

Requirements Document

- System shall have fields for first name, middle initial and last name.
- System shall display a name if there is one in the stored profile.
- System shall require name is completed.
- System shall have a field for position or title.
- System shall require title is completed.
- System shall display a position or title if there is one in the stored profile.
- System shall have fields for email and alternate email addresses.
- System shall display an email address if there is one in the stored in the profile.
- System shall require email and alternate email addresses are completed.
- System shall have a field for a daytime phone number.
- System shall display a phone number if there is one in the stored profile.
- System shall require phone number is completed.
- System shall validate the phone number is all digits when user exits the field.
- System shall display an error message if phone number is not all digits.
- System shall have a field for a fax number.
- System shall require fax is completed.
- System shall display a fax number if there is one in the stored profile.
- System shall validate the fax number is all digits when user exits the field.
- System shall display an error message if the fax number field is not all digits.
- System shall have two fields for a street address.
- System shall require the first street address field is completed.
- System shall display an address if there is one in the stored profile.
- System shall have a field for city.
- System shall require the city field is completed.
- System shall display a city if there is one in the stored profile.
- System shall have a field for state.
- System shall display a state if there is one in the stored profile.
- System shall require the state field is completed.
- System shall have a field for zip code.
- System shall display a zip code if there is one in the stored profile.
- System shall require the zip code field is completed.
- System shall look up zip code in the list of zip codes that span counties and display a county selection if it does span counties.
- System shall have a submit option.
- System shall save contact information updates to the order when the submit option is selected.
- System shall validate required fields are completed when the submit is selected.
- System shall display an error message when required fields are not completed, alerting user to which fields need to be completed.
- System shall give the option to receive a confirmation email.
- System shall take user to the billing information page when the contact

Display-Action-Response Model

Screen shot or wireframe

*Name (First, Middle Initial, Last)			
Jane	K	Doe	
*Position/Title			
Senior Project Manager			
*Email Address			
jdoe@acme.com		<input type="checkbox"/> Check to receive a confirmation email	
*Alternate Email Address			
jane1234@gmail.com			
*Daytime Phone			Ext
512	555	1212	
*Fax			
512	555	1211	
*Address 1			
1234 Mockingbird Lane			
Address 2			
*City	*State	*Zip Code	
Austin	TX	78756	
<input type="button" value="Submit"/>			

Display-Action-Response Model

Element Table

*Name (First, Middle Initial, Last)

*Position/Title

*Email Address
 ☐ Check to receive a confirmation email

*Alternate Email Address

*Daytime Phone

*Fax

*Address 1

Address 2

*City

*State

*Zip Code

UI Element: Zip Code Text Field

UI Element Description

ID	ELMT_0002
Description	Zip code as part of the mailing address for the customer

UI Element Displays

Precondition	Displays
Customer profile has an address stored	System displays stored zip code
Customer profile does not have an address saved	System displays blank text box
Zip code spans counties	System displays dropdown box to select the appropriate county <div> <div>Select County</div> <div>Travis</div> </div>

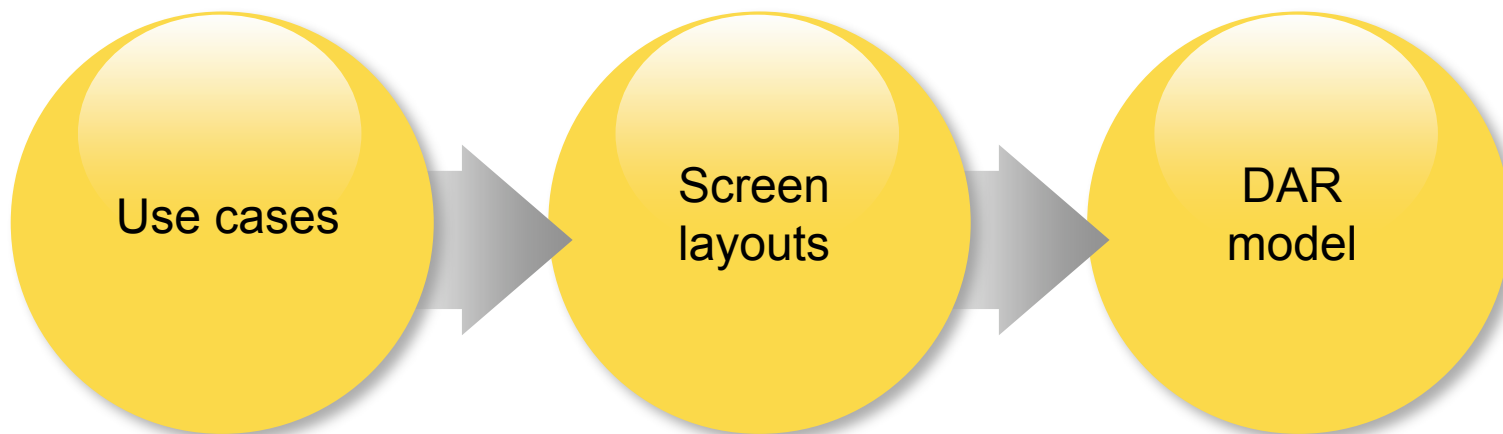
UI Element Behaviors

Precondition	Action	Behavior
Zip code entered spans counties	User tabs out of zip code field	System displays dropdown box to select the appropriate county <div> <div>Select County</div> <div>Travis</div> </div>
Zip code entered does not span counties	User tabs out of zip code field	System displays existing zip code field with entered data

Case Study

- Case Study:
 - Merging software applications
 - Introducing new features
 - Applying new UI

- The DAR model in the overall approach:



What We Learned

- Strengths

- Easy to use
- Structured details
- Bounded scope
- Works with low-fidelity UI representations

- Challenges

- Not for back-end or middleware systems
- Not for overall UI flow
- Time-consuming perception
- Often cut from scope
- UI representations are required

Future Work



Automation
Tools

System
Quality

Software
Development
Life Cycle

Questions?

- Further reading
 - <http://www.seilevel.com/blog>
- Further discussions
 - <http://www.requirementsexperience.com>
 - Contact us at joy.beatty@seilevel.com and mike.alexander@seilevel.com