



salesforce

# Visualforce in Lightning Experience

New and improved VF

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# Topics for this Session

1. Variety of ways to use Visualforce in Lightning  
Tab, page layout, custom action, standard action
2. Styling Visualforce like Lightning  
`<apex:page lightningStylesheets="true" />`
3. Using Lightning Out to bring Lightning into Visualforce



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# Visualforce just works in Lightning

Little tweaks to make your Visualforce app fit in

# Using Visualforce in Lightning Experience

## Custom Visualforce tabs

Search Salesforce

RPG Home Campaigns ▾ Roleplayers ▾ Signups ▾ Session Registration

Here's all the campaigns that have open positions!

Campaign Name	Fry the Frogman	Description	
Completed Tasks	<ul style="list-style-type: none"><li>Met the frogman's apprentice</li><li>Secured the dungeon key</li><li>Found the map</li></ul>	Registered Roleplayers	<ul style="list-style-type: none"><li>Jorgar Bleakley</li><li>Maven Rainsong</li></ul>
Roleplayer	<input type="text"/>	<a href="#">Signup for this campaign</a>	

Freddy the Frogman has a tight grip on Froggy Swamp. It's up to the adventurers to loosen him at any cost. Find his apprentice, steal the key to Freddy's castle, get the map to the throne room, and take him down!

  

Campaign Name	Marvin the Minotaur needs help!	Description	
It's a special day for Marvin the Minotaur. His true love Bessie is coming over on their 3rd date. His castle is in shambles and he has a lot of chores to get done before it's presentable. Help him out by cleaning the parts of the castle Bessie will see. Shove into the closet anything laying around on the floor. Start cooking dinner, because Marvin ate his only cookbook.			



# Using Visualforce in Lightning Experience

## Inline in Page Layouts

The screenshot shows a Salesforce Lightning Experience page for a campaign named "Fry the Frogman". The top navigation bar includes icons for RPG, Home, Campaigns, Roleplayers, Signups, and Session Registration. A search bar is also present. The main content area displays the campaign details under the "DETAILS" tab. The campaign name is "Fry the Frogman", and the boss is "Frogman". The owner is Mike Senn, and there is a checked checkbox for "OpenPositions". Below the details, there is an image of a cartoon frog wearing a hat and holding a spatula, labeled "Experience gained by each roleplayer". A donut chart shows the experience distribution between two roleplayers: Maven Rainsong and Jorgar Bleakley.

Roleplayer	Experience Gained
Maven Rainsong	Small slice (estimated 10%)
Jorgar Bleakley	Large slice (estimated 90%)

# Using Visualforce in Lightning Experience

## Record Quickactions

The screenshot shows the RPG campaign quicksheet for "Fry the Frogman". The top navigation bar includes a dice icon, a search bar, and a star rating section. Below the header, there are tabs for Home, Campaigns, Roleplayers, Signups, and Session Registration. The main content area displays the campaign description: "Freddy the Frogman has a tight grip on Froggy Swamp. It's up to the adventurers to loosen him at any cost. Find his apprentice, steal the key to Freddy's castle, get the map to the throne room, and take him down!". It also lists the "Big Boss" (Frogman) and two roleplayers: Jorgar Bleakley and Maven Rainsong, each with their own character portraits. A large blue donut chart represents the experience gained by each roleplayer. The chart is divided into two segments: one for Jorgar Bleakley and one for Maven Rainsong. To the right, a list of completed tasks includes: Met the frogman's apprentice, Secured the dungeon key, and Found the map. At the bottom, there are sections for Character Info and Skills and Spells for both roleplayers.

Roleplayer Name	Jorgar Bleakley	Race	Elf
Class	Rogue	Level	5
Skills and Spells			

Roleplayer Name	Maven Rainsong	Race	Human
Class	Bard	Level	1
Skills and Spells			

The screenshot shows the same RPG campaign quicksheet interface. A large blue arrow points from the left towards the "Quicksheet" button in the bottom right corner of the quicksheet panel. The top navigation bar includes a timer (8.73 s), file size (1687.98 KB), a star rating section, and various icons for edit, help, settings, and notifications. The user profile picture of a person with short brown hair is visible in the top right corner.

# Using Visualforce in Lightning Experience

## Standard Action Override

The screenshot shows two character sheets for 'Maven Rainsong' in the RPG application. The top sheet displays 'Character Info' with fields: Real Life Name (Megan), Phone (555-555-5555), and a note about years of experience. The bottom sheet shows 'Character Info' with fields: Roleplayer Name (Maven Rainsong), Class (Bard), Race (Human), Level (1), and Experience (1). Both sheets include a 'Stats' section with Strength (8) and Dexterity (12). To the right of the character sheets is a cartoon illustration of a bard playing a banjo.

The screenshot shows the 'Object Manager' in the Salesforce setup area. It's editing an override for the 'Edit' button. The 'Override Properties' section shows the 'Label' as 'Edit', 'Name' as 'Edit', and 'Default' as 'Standard Salesforce.com Page'. The 'Override With' section has a radio button selected for 'Visualforce Page' with the value 'My\_VF\_Contact\_OVERRIDE [My\_VF\_Contact\_OVERRIDE]'. A red box highlights this selection. Below the properties are 'Save' and 'Cancel' buttons.



# Using Visualforce in Lightning Experience

## Lightning App Builder

The screenshot shows the Lightning App Builder interface for creating a Visualforce component on an Account record page.

**Left Sidebar (Lightning Components):**

- Search bar: Search components...
- Standard (13):**
  - Activities
  - Chatter Feed
  - Feed
  - Filter List
  - Highlights Panel
  - Insights
  - Recent Items
  - Record Detail
  - Related Lists
  - Report Chart
  - Rich Text
  - Twitter
  - Visualforce** (highlighted with a red box)
- Custom (0):** Custom components aren't enabled.

**Middle Area (Account Record Page Preview):**

Preview of the Account record page for "Beef Corporation of America". The Visualforce component is displayed in a section labeled "My Visualforce Component Section".

**Right Area (Visualforce Component Definition):**

Page > Visualforce

**Form Fields:**

- Label: My Visualforce Component Section
- Visualforce Page Name\*: My Visualforce Page
- Height (in pixels): 300

**Buttons:**

- Save
- Activation...

**Helpful Links:**

- Page
- Visualforce

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# Revamping your Style

<apex:page lightningStylesheets="true">

# Revamping your Style

It's almost too easy...

Here's all the campaigns that have open positions!

Campaign Name	Fry the Frogman	Description	Freddy the Frogman has a tight grip on Froggy Swamp. It's up to the adventurers to loosen him at any cost. Find his apprentice, steal the key to Freddy's castle, get the map to the throne room, and take him down!	
Completed Tasks	<ul style="list-style-type: none"><li>Met the frogman's apprentice</li><li>Secured the dungeon key</li><li>Found the map</li></ul>	Registered Roleplayers	<ul style="list-style-type: none"><li>Jorgar Bleakley</li><li>Maven Rainsong</li></ul>	
Roleplayer	<input type="text"/>  <a href="#">Signup for this campaign</a>			
Campaign Name	Marvin the Minotaur needs help!	Description	It's a special day for Marvin the Minotaur. His true love Bessie is coming over on their 3rd date. His castle is in shambles and he has a lot of chores to get done before it's presentable. Help him out by cleaning the parts of the castle Bessie will see. Shove into the closet anything laying around on the floor. Start cooking dinner, because Marvin ate his only cookbook.	
Completed Tasks		Registered Roleplayers		

HERE'S ALL THE CAMPAIGNS THAT HAVE OPEN POSITIONS!

Campaign Name	Fry the Frogman	Description	Freddy the Frogman has a tight grip on Froggy Swamp. It's up to the adventurers to loosen him at any cost. Find his apprentice, steal the key to Freddy's castle, get the map to the throne room, and take him down!	
Completed Tasks	<ul style="list-style-type: none"><li>Met the frogman's apprentice</li><li>Secured the dungeon key</li><li>Found the map</li></ul>	Registered Roleplayers	<ul style="list-style-type: none"><li>Jorgar Bleakley</li><li>Maven Rainsong</li></ul>	
Roleplayer	<input type="text"/>  <a href="#">Signup for this campaign</a>			
Campaign Name	Marvin the Minotaur needs help!	Description	It's a special day for Marvin the	

# Revamping your Style

It's almost too easy...

When using <apex:page lightningStylesheets="true">

- Styling definitions are different for Classic users and Lightning users.
- You should use standardStylesheets="true" to keep stylesheets.
- Your custom stylesheets are still used!
- New styles may change with each release.
- This feature is in Beta. Try it out in sandbox!



# Detecting the Experience

\$User.UITheme and \$User.UIThemeDisplayed

API Name	Usage
Theme3	Salesforce Classic
Theme4d	Lightning Desktop
Theme4t	Salesforce Mobile App

\$User.UIThemeDisplayed controls the user's "current UI context".

In Apex, use equivalent system method  
UserInfo.getUiThemeDisplayed()

```
<apex:outputPanel rendered=" {! $User.UIThemeDisplayed == 'Theme3' } ">
    <apex:stylesheet value=" {!URLFOR($Resources.styles,'classic.css') } "/>
</apex:outputPanel>
```

```
<apex:outputPanel rendered=" {! $User.UIThemeDisplayed == 'Theme4d' } ">
    <apex:stylesheet value=" {!URLFOR($Resources.styles,'lightning.css') } "/>
</apex:outputPanel>
```





# Developing for Lightning Experience



# Developing for Lightning Experience

Some subtle differences...

URLs like <https://salesforce.com/apex/pagename> always shows the page in Salesforce Classic.

- Test in Lightning, create a Visualforce tab and add it to an App
- Test on multiple platforms: Classic, Lightning Desktop, Salesforce Mobile App

Don't wait until you deploy! Test early, test often, test everything!

Visualforce development mode footer is not available in Lightning Experience



Name	Type	Value	Size (KB)	% Of Parent
ftplatform.Store			4.3	100
State			4	93
Controllers			1.41	35
ftplatform.StoreExtension			1.41	100
...			--	--

Page store Controller Extension



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# Lightning Components in Visualforce

<apex:includeLightning /> and Lightning Out



# Lightning Components in Visualforce

<force:recordView>

Charles Bleakley  
(555) 555-5555  
• 5/1/2005  
• 12 years of experience

Character Info	
Roleplayer Name	Jorgar Bleakley
Class	Rogue
Experience	26
Race	Elf
Level	5

Lightning Out has three steps:

1. Create a Lightning dependency application
2. Load the dependency app in the Visualforce page
3. Create the Lightning components for your page

# Including a Lightning Component in Visualforce

## Step 1 of 3: Reference a Lightning App

Define component dependencies, by creating a special purpose “Lightning Dependency App”, which declares dependencies on any Lightning Components that it uses.

Any Lightning Components you wish to include in the Visualforce page should be declared as dependencies in this app. Give it a name, like “DependencyApp.app”

```
<aura:application access="GLOBAL" extends="ltng:outApp" >  
  
    <aura:dependency resource="force:recordView" />  
  
</aura:application>
```

# Including a Lightning Component in Visualforce

## Step 2 of 3: Add Lightning capability to Visualforce

Load lightning.out.js in your page.

Reference the app in the VF page using \$Lightning.use()

- Reference the app from step 1
- Pass a callback function

```
<apex:page>
    <apex:includeLightning />
    <script>
        $Lightning.use( 'c:CharacterSheetDependencyApp', function () {
            });
    </script>
</apex:page>
```

# Including a Lightning Component in Visualforce

## Step 3 of 3: Create Component on the page

Create the component on a page using `$Lightning.createComponent()`

This function is similar to `$A.createComponent()`, but includes an additional parameter, `domLocator`, which specifies the DOM element where you want the component inserted.

```
$Lightning.createComponent(  
    'force:recordView',  
    attributes,  
    'fillInCharacterDetails',  
    function (cmp) {}  
);
```



```
$A.createComponent(  
    'force:recordView',  
    attributes,  
    function (cmp) {}  
);
```

# Lessons from this Session

1. ✓ Variety of ways to use Visualforce in Lightning  
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Visit “Visualforce in Lightning Experience” booth  
back-right corner of developer forest

## Q&A

Slides and code - <https://github.com/mpsenn/dreamforce2017>

Twitter - @mpsenn



# Thank You

