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Django - what is the difference between render(), render_to_response() and direct_to_template()?

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Whats the difference (in language a python/django noob can understand) in a view between `render()`, `render_to_response()` and `direct_to_template()` ?

e.g. from Nathan Borror's basic apps examples

```
def comment_edit(request, object_id, template_name='comments/edit.html'):
    comment = get_object_or_404(Comment, pk=object_id, user=request.user)
    # ...
    return render(request, template_name, {
        'form': form,
        'comment': comment,
    })
```

But I've also seen

```
    return render_to_response(template_name, my_data_dictionary,
              context_instance=RequestContext(request))
```

And

```
    return direct_to_template(request, template_name, my_data_dictionary)
```

Whats the difference, what to use in any particular situation?

python   django

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edited May 5 '15 at 12:26

asked Mar 1 '11 at 12:13

Ryan
13.9k ●13 ●63 ●112

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5 Answers

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https://docs.djangoproject.com/en/1.8/topics/http/shortcuts/#render

```
render(request, template[, dictionary][, context_instance][, content_type][, status][, current
```

`render()` is a brand spanking new shortcut for `render_to_response` in 1.3 that will automatically use `RequestContext` that I will most definitely be using from now on.

---

https://docs.djangoproject.com/en/1.8/topics/http/shortcuts/#render-to-response

```
render_to_response(template[, dictionary][, context_instance][, mimetype])¶
```

`render_to_response` is your standard render function used in the tutorials and such. To use `RequestContext` you'd have to specify `context_instance=RequestContext(request)`

---

https://docs.djangoproject.com/en/1.8/ref/generic-views/#django-views-generic-simple-direct-to-template

`direct_to_template` is a generic view that I use in my views (as opposed to in my urls) because like the new `render()` function, it automatically uses `RequestContext` and all its `context_processor`s.

---

asked   5 years ago

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But `direct_to_template` *should be avoided* as function based generic views are deprecated. Either use `render` or an actual class, see https://docs.djangoproject.com/en/1.3/topics/generic-views-migration/

I'm happy I haven't typed `RequestContext` in a long, long time.

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edited Sep 30 '15 at 13:02

Mani BAtra
45 ● 8

answered Mar 1 '11 at 12:22

Yuji 'Tomita' Tomita
61.9k ● 13 ● 152 ● 160

Correction. According to docs `render()` is available from 1.3. – AppleGrew Nov 27 '12 at 3:14

@AppleGrew, nice catch! The "Community" modified my post to point to specific branches and they picked 1.4 – Yuji 'Tomita' Tomita Nov 27 '12 at 3:54

5 Do note: function based **generic views** are deprecated, not function based **views**. Generic views that ship with Django are now implemented using class based views (TemplateView), they used to be implemented as functions (direct_to_template, etc). Views implemented as functions, my personal preference, are still supported and that won't change. – Nick Zalutskiy Mar 27 '13 at 1:35 ✎

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Rephrasing Yuri, Fábio, and Frosts answers for the Django noob (i.e. me) - almost certainly a simplification, but a good starting point?

- `render_to_response()` is the "original", but requires you putting `context_instance=RequestContext(request)` in nearly all the time, a PITA.

- `direct_to_template()` is designed to be used just in urls.py without a view defined in views.py but it can be used in views.py to avoid having to type RequestContext

- `render()` is a shortcut for `render_to_response()` that automatically supplies `context_instance=Request` .... Its available in the django development version (1.2.1) but many have created their own shortcuts such as this one, this one or the one that threw me initially, Nathans basic.tools.shortcuts.py

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edited Nov 27 '14 at 18:19

Lucio
1,328 ● 2 ● 13 ● 41

answered Mar 1 '11 at 12:59

Ryan
13.9k ● 13 ● 63 ● 112

The first link (import-awesome.com/…) is giving 404 – Lucio Nov 25 '14 at 2:43

Yeah, that can happen on links that are almost 4 years old! – Ryan Nov 27 '14 at 13:32

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Render is

```
def render(request, *args, **kwargs):
    """ Simple wrapper for render_to_response. """
    kwargs['context_instance'] = RequestContext(request)
    return render_to_response(*args, **kwargs)
```

So there is really no difference between `render_to_response` except it wraps your context making the template pre-processors work.

Direct to template is a generic view.

There is really no sense in using it here because there is overhead over `render_to_response` in the form of view function.

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edited Jul 19 '13 at 10:13

Oz123
7,877 ● 8 ● 41 ● 85

answered Mar 1 '11 at 12:24

Frost.baka
3,306 ● 1 ● 12 ● 17

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From django docs:

> render() is the same as a call to render_to_response() with a context_instance argument that that forces the use of a RequestContext.

direct to template is something different. It's a generic view that uses a data dictionary to render

...`direct_to_template` is something different. It's a generic view that uses a data dictionary to render the html without the need of the views.py, you use it in urls.py. Docs here

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answered Mar 1 '11 at 12:20

Wladimir Palant   **Fábio Diniz**
41.1k ●7 ●56 ●90   **5,278** ●21 ●35

1   Thanks +1 from me too, I gave the answer to Yuri as it was a more complete answer though. – Ryan Mar 1 '11 at 13:01

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Just one note I could not find in the answers above. In this code:

```
context_instance = RequestContext(request)
return render_to_response(template_name, user_context, context_instance)
```

What the third parameter `context_instance` actually does? Being RequestContext it sets up some basic context which is then added to `user_context`. So the template gets this extended context. What variables are added is given by `TEMPLATE_CONTEXT_PROCESSORS` in settings.py. For instance django.contrib.auth.context_processors.auth adds variable `user` and variable `perm` which are then accessible in the template.

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answered Mar 29 '13 at 22:02

clime
3,441 ●3 ●29 ●62

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