

# Django

## Python web framework | Session 3

Indian Institute of Technology Bombay

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# Session 1

We covered

- Why Python-django
- Django framework
- Introduction to `virtualenv`
- Install/Configure Django
- Django views(`views.py`)



# Session 2

We covered

- Django admin
- Models(Databases)
  - `octo/settings.py`
- URLs redirection
- Templates



# URL redirection

```
from django.conf.urls import patterns, include, url

# Uncomment the next two lines to enable the admin:
from django.contrib import admin
admin.autodiscover()

urlpatterns = patterns('',
    # Examples:
    # url(r'^$', 'octo.views.home', name='home'),
    url(r'^$', include('app.urls')),

    # Uncomment the admin/doc line below to enable admin documentation:
    # url(r'^admin/doc/', include('django.contrib.admindocs.urls')),

    # Uncomment the next line to enable the admin:
    url(r'^admin/', include(admin.site.urls)),
    url(r'^app/', include('app.urls')),
)
```

Figure 1: octo/urls.py

```
from django.conf.urls import patterns, include, url

urlpatterns = patterns('',
    # Examples:
    url(r'^$', 'app.views.hello', name='hello'),
    url(r'^hi/$', 'app.views.say_hi', name='hi'),
    url(r'^blog/$', 'app.views.blog'),
)
```

Figure 2: app/urls.py

# app/views.py

```
def blog(request):  
    context = RequestContext(request)  
    blogs = Blog.objects.all()  
  
    context_dict = {  
        'blogs': blogs,  
    }  
  
    return render_to_response("app/blog.html",  
                              context_dict, context)
```

# List in Python

```
1:  blogs = ['My first post',
2:           'Started with a BANG!',
3:           'Deep blue Sea',
4:           'Revenge of the fallen']
5:
6:  print blogs
7:
8:  for blog in blogs:
9:      print blog
```

# Dictionary in Python

```
1: context_dict = {  
2:     'blogs': blogs,  
3: }  
4:  
5: print context_dict['blogs']
```

# octo/templates/app/blog.html

```
{% for blog in blogs %}  
<h2>{{blog.title}}</h2>  
<p>{{blog.body}}</p>  
{% endfor %}
```



# Forms in Django

*For lazy nerds*



# Forms: Decide the url

`localhost:8000/app/blog/submit`

# Forms: app/urls.py

```
from django.conf.urls import patterns, include, url

urlpatterns = patterns('',
    # ...
    # ...
    url(r'^blog/submit/$', 'app.views.submit_post'),
)
```

# Forms: app/views.py

```
def submit_post(request):  
    """Create a form to submit post."""  
  
    # ..  
    return render_to_response()
```

# Forms: app/forms.py

```
from django import forms
from models import Blog

# begin forms
class PostForm(forms.ModelForm):
    title = forms.CharField()
    body = forms.TextInput()

    class Meta:
        model = Blog
        fields = ['title', 'body']
```

# Forms: app/views.py

```
def submit_post(request):  
    """Create a form to submit post.  
    """  
  
    # context  
  
    # If user clicked 'Submit' button(POST request)  
    # Validate form  
    # Save form  
    # Show all posts  
    # Throw errors(if any)  
    # Else show empty form  
    return render_to_response()
```



# References

- <https://docs.djangoproject.com/>
- <http://www.tangowithdjango.com/book/>