Lab 4: Django Testing

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Objective

Set up a basic Django web server with URL routing.

Installation

```
pip install django channels==3.0.4
```

Project Setup

```
django-admin startproject django_app
cd django_app
python manage.py startapp myapp
```

Implementation

myapp/views.py

```python
from django.http import HttpResponse

def index(request):
    return HttpResponse("Basic server startup!")
```

myapp/urls.py

```python
from django.urls import path
from . import views
```

```python
urlpatterns = [
    path('', views.index, name='index'),
]
```

django_app/urls.py

```python
from django.contrib import admin
from django.urls import path, include

urlpatterns = [
    path('admin/', admin.site.urls),
    path('', include('myapp.urls')),
]
```

django_app/settings.py (modified)

```python
ALLOWED_HOSTS = ['localhost', '127.0.0.1']

INSTALLED_APPS = [
    ...
    'myapp',
]
```

Running the Server

```
python manage.py runserver 127.0.0.1:8000
```

Output

```
Watching for file changes with StatReloader
Performing system checks...

System check identified no issues (0 silenced).
December 07, 2025 - 15:21:13
Django version 6.0, using settings 'django_app.settings'
Starting development server at http://127.0.0.1:8000/
```

Testing with curl

```
$ curl http://127.0.0.1:8000/
```

```
Basic server startup!
```

Conclusion

Django provides a robust framework for building web applications. The
project demonstrates basic URL routing from the main project to an app,
with a simple view returning an HTTP response.