Web Programming with Python and JavaScript

Lecture 7: Django

July 19, 2018

Week #	Tuesday	Thursday
0	Git	HTML, CSS
1	Python, Flask *Project 0*	SQL
2	ORMs, APIs	JavaScript *Project 1*
3	Front Ends	Django
4	Testing, CI, CD *Project 2*	Security
5	Scalability	Seminars *Project 3*
6	-	App Party *Final Project*

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Django

```
django-admin startproject projectname
```

Project Components

- `__init__.py`
- `manage.py`
- `settings.py`
- `urls.py`
- `wsgi.py`
- `projectname/`

Application Components

- `admin.py`
- `apps.py`
- `migrations/`
- `models.py`
- `tests.py`
- `views.py`

manage.py Commands

- startapp
- makemigrations
- migrate
- sqlmigrate
- shell
- createsuperuser
- runserver
- ...

```
python manage.py startapp appname
```

Model Field Types

- models.BooleanField
- models.CharField
- models.DateField
- models.DecimalField
- models.IntegerField
- models.TextField
- ...

on_delete Effects

- CASCADE
- PROTECT
- SET_NULL
- ...

Model Field Types (Relationships)

- `models.ForeignKey`
- `models.ManyToManyField`
- `models.OneToOneField`