

# Deep Dive 2: Django 1

## MVC vs. MVT

- Overview
  - Site
    - Django project begins by create a site.
    - Contains settings.py that has global settings for the project.
    - Contains urls.py that are the main entry to the site.
    - Apps are one way to add functionality to your site.
  - Packages
    - Extra packages to enhance your site or add functionality.
    - For example, database adapter for various databases (HINT: You will need to do this for HW).
    - package managers
      - pip ([https://en.wikipedia.org/wiki/Pip\\_\(package\\_manager\)](https://en.wikipedia.org/wiki/Pip_(package_manager)))
      - easy\_install ([http://setuptools.readthedocs.io/en/latest/easy\\_install.html](http://setuptools.readthedocs.io/en/latest/easy_install.html))
      - setup.py (Install a local package).
- MVC vs. MVT
  - M → M
  - V → T
  - C → V
- RVMT
  - Routes
    - <https://docs.djangoproject.com/en/1.11/topics/http/urls/>
    - These usually involve URL patterns.
  - Views
    - Functional views.
      - <https://docs.djangoproject.com/en/1.11/topics/http/views/>
    - Class Based Views (CBV)
      - <https://docs.djangoproject.com/en/1.11/topics/class-based-views/>
      - <https://docs.djangoproject.com/en/1.11/topics/auth/default/#the-loginrequired-mixin>
      - <http://ccbv.co.uk/>
  - Models
    - <https://docs.djangoproject.com/en/1.11/topics/db/models/>
    - <https://docs.djangoproject.com/en/1.11/ref/models/fields/>
    - Define what your 'table' looks like.
    - Define what your forms look like.

- Validation.
- Templates
  - <https://docs.djangoproject.com/en/1.11/topics/templates/>
  - [https://tutorial.djangogirls.org/en/template\\_extending/](https://tutorial.djangogirls.org/en/template_extending/)
  - Generate HTML dynamically.
- QuerySets
  - <https://docs.djangoproject.com/en/1.11/ref/models/querysets/>
  - Perform queries on a table (Select, Create, Update).
- Forms
  - Generate the forms for you.
  - <https://docs.djangoproject.com/en/1.11/topics/forms/>
- Migrations
  - <https://docs.djangoproject.com/en/1.11/topics/migrations/>
  - Different versions of a schema.
- Decorators
  - <https://docs.djangoproject.com/en/1.11/topics/http/decorators/>
  - Adding/Restricting behavior to a view.
  - For example, restrict which Requests a functional view can accept.