mac 에서 프로젝트 설치

01 작업할 볼륨으로 옮기기
```
$ cd /Volumes/Work
```

02 회사 폴더 만들고 들어가기
```
$ mkdir ddtech
$ cd ddtech
```

03 가상환경 만들고 들어가기
```
$ python3 -m venv ddtenv
$ source ddtenv/bin/activate
```

04 프로젝트 폴더 만들고 확인하고 들어가기
```
(ddtenv) $ mkdir aegis
(ddtenv) $ ls -l
total 0
drwxr-xr-x  2 graywolf  admin   64  1 11 13:48 aegis
drwxr-xr-x  6 graywolf  admin  192  1 11 13:48 ddtenv
(ddtenv) $ cd aegis
```

05 PIP 최신버전으로 업그레이드
```
(ddtenv) $ pip install --upgrade pip
Collecting pip
  Using cached https://files.pythonhosted.org/packages/c2/
d7/90f34cb0d83a6c5631cf71dfe64cc1054598c843a92b400e55675cc2ac37/pip-18.1-py2.py3-none-any.whl
Installing collected packages: pip
  Found existing installation: pip 10.0.1
    Uninstalling pip-10.0.1:
      Successfully uninstalled pip-10.0.1
Successfully installed pip-18.1
```

06 django 설치하기
```
(ddtenv) $ pip install django~=2.1
Collecting django~=2.1
  Using cached https://files.pythonhosted.org/packages/
36/50/078a42b4e9bedb94efd3e0278c0eb71650ed9672cdc91bd5542953bec17f/Django-2.1.5-py3-none-any.whl
Collecting pytz (from django~=2.1)
  Using cached https://files.pythonhosted.org/packages/
61/28/1d3920e4d1d50b19bc5d24398a7cd85cc7b9a75a490570d5a30c57622d34/pytz-2018.9-py2.py3-none-
any.whl
Installing collected packages: pytz, django
Successfully installed django-2.1.5 pytz-2018.9
```

07 mysql 연결하기
```
(ddtenv) $ pip install mysqlclient
Collecting mysqlclient

    ......
    ld: library not found for -lssl
    clang: error: linker command failed with exit code 1 (use -v to see invocation)
    error: command 'gcc' failed with exit status 1
    ......
```

071 위와 같이 ssl 링크에러가 발생하면 openssl 설치
```
(ddtenv) $ brew install openssl
Updating Homebrew...
==> Auto-updated Homebrew!
Updated 1 tap (homebrew/core).
==> New Formulae
cryptominisat    libgusb         libvirt-glib      lsd          needle        oxipng        simple-
scan       spice-protocol
==> Updated Formulae
capstone    diff-pdf    fltk    fuseki    hexyl    jid    mu    pdftoedn    php    pyenv
tor        youtube-dl
```

clamav   eccodes   fluid-synth   hbase   imagemagick   mongodb   opentsdb   pdftoipe
poppler   tcpdump   weboob

Warning: openssl 1.0.2q is already installed and up-to-date
To reinstall 1.0.2q, run `brew reinstall openssl`

072 ssl 경로 설정
(ddtenv) $ export LIBRARY_PATH=$LIBRARY_PATH:/usr/local/opt/openssl/lib/

073 mysql 연결하기
(ddtenv) $ pip install mysqlclient
Collecting mysqlclient
  Using cached https://files.pythonhosted.org/packages/f7/
a2/1230ebbb4b91f42ad6b646e59eb8855559817ad5505d81c1ca2b5a216040/mysqlclient-1.3.14.tar.gz
Installing collected packages: mysqlclient
  Running setup.py install for mysqlclient ... done
Successfully installed mysqlclient-1.3.14

08 프로젝트 시작하기 (환경이 만들어짐)
(ddtenv) $ django-admin startproject config .
(ddtenv) $ tree ../aegis
../aegis
├── config
│   ├── __init__.py
│   ├── settings.py
│   ├── urls.py
│   └── wsgi.py
└── manage.py

1 directory, 5 files

081 config - setting 을 아래와 같이 수정
  ALLOWED_HOSTS = ['127.0.0.1', '0.0.0.0']
  DATABASES = {
    'default': {
      'ENGINE': 'django.db.backends.sqlite3',
      'NAME': os.path.join(BASE_DIR, 'db.sqlite3'),
    }
  }
  LANGUAGE_CODE = 'ko'
  TIME_ZONE = 'Asia/Seoul'
  STATIC_URL = '/static/'
  STATIC_ROOT = os.path.join(BASE_DIR, '/static')

082 DB 를 옮긴다. (모델이 없어서 특별히 하는건 없음.)
(ddtenv) $ python manage.py migrate

083 서버를 임시로 실행해서 잘 작동하는 확인한다.
(ddtenv) $ python manage.py runserver
(ddtenv) $ python manage.py runserver 0.0.0.0:8000

09 근로자 어플리케이션을 만든다.
(ddtenv) $ python manage.py startapp employee
(ddtenv) $ tree ../aegis
../aegis
├── config
│   ├── __init__.py
│   ├── __pycache__
│   │   ├── __init__.cpython-36.pyc
│   │   └── settings.cpython-36.pyc
│   ├── settings.py
│   ├── urls.py
│   └── wsgi.py
├── employee
│   ├── __init__.py

```
        |       ├──── admin.py
        |       ├──── apps.py
        |       ├──── migrations
        |       |       └──── __init__.py
        |       ├──── models.py
        |       ├──── tests.py
        |       └──── views.py
        └──── manage.py
```

4 directories, 14 files

091 근로자 어플리케이션을 아래와 같이 등록한다. (aegis/config/setting.py)
```python
INSTALLED_APPS = [
    ......
    'employee',
]
```

092 어플리케이션에 모델을 아래와 같이 추가한다. (istoaegis/configry/models.py)
```python
from django.db import models
from django.utils import timezone


class Post(models.Model):
    author = models.ForeignKey('auth.User', on_delete=models.CASCADE)
    title = models.CharField(max_length=200)
    text = models.TextField()
    created_date = models.DateTimeField(default=timezone.now)
    published_date = models.DateTimeField(blank=True, null=True)

    def publish(self):
        self.published_date = timezone.now()
        self.save()

    def __str__(self):
        return self.title
```

093 DB 에 테이블을 추가한다.
```
(ddtenv) $ python manage.py makemigrations knowledge
(ddtenv) $ python manage.py migrate knowledge
```

10 관리자 설정 (employee/admin.py)
```python
from django.contrib import admin
from .models import Post

admin.site.register(Post)
```

101 관리자 생성
```
(ddtenv) $ python manage.py createsuperuser
Username: admin
Email address: thinking@ddtechi.com
Password: p...j
Password (again): p...j
Superuser created successfully.
```

102 로그인
http://127.0.0.1:8000/admin/

103 관리자 추가 정보
https://docs.djangoproject.com/en/1.8/ref/contrib/admin/

11 url 설정 (aegis/config/urls.py)
```python
from django.conf.urls import include, url
from django.contrib import admin

urlpatterns = [
```

```
    url(r'^admin/', admin.site.urls),
    url(r'', include('knowledge.urls')),
]
```

```
from django.conf.urls import url
from . import views

urlpatterns = [
    url(r'^$', views.post_list, name='post_list'),
]
```

112 url 추가 정보

https://docs.djangoproject.com/en/1.11/topics/http/urls/

 12 view 만들기 (blog/views.py)
```
from django.shortcuts import render
from django.utils import timezone
from .models import Post

def post_list(request):
    posts = Post.objects.filter(published_date__lte=timezone.now()).order_by('published_date')
    return render(request, 'blog/post_list.html', {})
```

12 HTML 만들기 (knowledge/templates/knowledge/post_list.html)
```
<div>
    <h1><a href="/">유아이야기</a></h1>
</div>

{% for post in posts %}
    <div>
        <p>published: {{ post.published_date }}</p>
        <h1><a href="">{{ post.title }}</a></h1>
        <p>{{ post.text|linebreaksbr }}</p>
    </div>
{% endfor %}
```