- 게시판
 - 필요 기술 / 라이브러리
 - HTML Design
 - Database
 - Model
 - · class User / Article
 - Django View
 - Django Template

- 게시판 작성 (Create)
 - templates/write.html

```
{% extends 'base.html' %}
{% block content %}
<div class="jumbotron">
  <div class="container text-center">
    <form method="post" action="/article/write/">
      {% csrf token %}
      <div class="form-group">
        <label for="title">Title:</label>
        <input type="text" class="form-control" name="title" id="title">
      </div>
      <div class="form-group">
        <label for="content">Content:</label>
        <textarea class="form-control" rows="5" name="content" id="content"></textarea>
      </div>
      <button type="submit" id="complete" class="btn btn-primary btn-block">
        글쓰기
      </button>
                                                                  Title:
    </form>
  </div>
                                                                  Content:
</div>
{% endblock %}
                                                                  글쓰기
```

- 게시판 작성 (Create)
 - templates/write_success.html

```
{% extends 'base.html' %}
{% block content %}

<div class="jumbotron">
        <div class="container text-center">
              <h1>글 작성이 완료되었습니다.</h1>
        </div>
</div>
{% endblock %}
```

templates/write_fail.html

- 게시판 작성 (Create)
 - article/models.py

```
class Article(models.Model):
   title = models.CharField(max_length=100)
   content = models.CharField(max_length=1000)
   user = models.ForeignKey(User, on_delete=models.CASCADE)
```

- migration
 - python manage.py makemigrations
 - python manage.py migrate

article_article		CREATE TABLE "article_article" ("id" integer NO
id	integer	"id" integer NOT NULL PRIMARY KEY AUTOINC
title	varchar(100)	"title" varchar(100) NOT NULL
content	varchar(1000)	"content" varchar(1000) NOT NULL
user_id	integer	"user_id" integer NOT NULL

- 게시판 작성 (Create)
 - board/views.py

```
def write(request):
                                                             세션 정보가 없는 경우 예외 발생
  if request.method == 'POST':
                                                             KeyError at /article/write/
     title = request.POST.get('title')
                                                             'email'
     content = request.POST.get('content')
                                                                Request Method: POST
                                                                 Request URL: http://localhost:8000/article/write/
                                                                Django Version: 2.2.5
                                                                Exception Type: KeyError
                                                                Exception Value: 'enail'
                                                               Exception Location: C:\Users\GoReb\Miniconda3\lib\site
     try:
                                                                       packages#django#contrib#sessions#backends#base.py in
        email = request.session['email']
                                                               Python Executable: C:\Users\GoReb\Miniconda3\python.exe
        # select * from user where email = ?
        user = User.objects.get(email=email)
        # insert into article (title, content, user_id) values (?, ?, ?)
        article = Article(title=title, content=content, user=user)
        article.save()
        return render(request, 'write_success.html')
     except:
        return render(request, 'write_fail.html')
  return render(request, 'write.html')
```

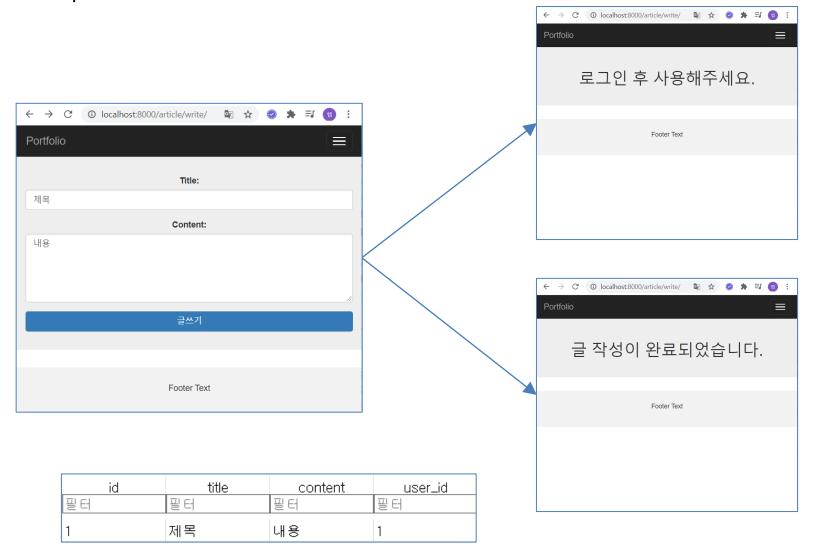
- 게시판 작성 (Create)
 - board/urls.py

```
from django.contrib import admin
from django.urls import path
import board.views as views

urlpatterns = [
    path('admin/', admin.site.urls),
    path('index/', views.index),
    path('signup/', views.signup),
    path('signin/', views.signin),
    path('article/write/', views.write),
]
```

■ 게시판 - 작성 (Create)

http://localhost:8000/article/write/



- 게시판 목록 조회 (Read)
 - templates/list.html

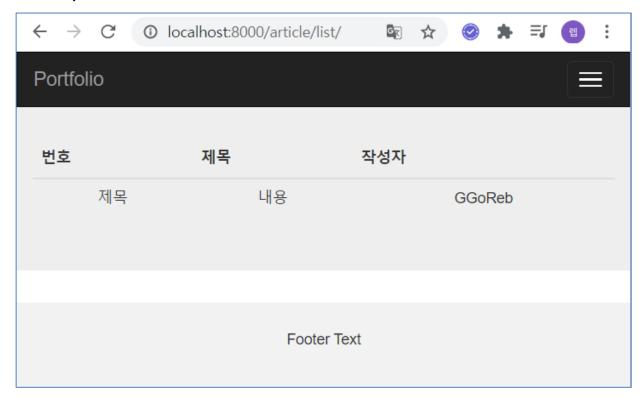
```
{% extends 'base.html' %}
{% block content %}
<div class="jumbotron">
 <div class="container text-center">
  <thead>
     >
      번호제목작성자
     </thead>
    {% for article in article list %}
     >
      {{ article.title }}
      {{ article.content }}
      {{ article.user.name }}
     {% endfor %}
    </div>
                          번호
                                   제목
                                             작성자
</div>
{% endblock %}
```

- 게시판 목록 조회 (Read)
 - board/views.py

```
def list(request):
    # select * from article order by id desc
    article_list = Article.objects.order_by('-id')
    context = {
        'article_list' : article_list
    }
    return render(request, 'list.html', context)
```

board/urls.py

- 게시판 목록 조회 (Read)
 - http://localhost:8000/article/list/



- 게시판 상세 조회 (Read)
 - templates/detail.html

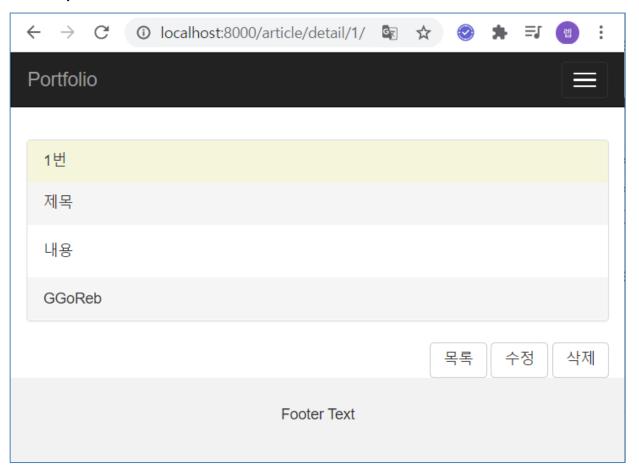
```
{% extends 'base.html' %}
{% block content %}
<div class="container" style='margin-top:30px;'>
  <div class="panel-group">
    <div class="panel panel-default">
      <div class="panel-heading" style='background-color: beige;'>
        {{ article.id }}번
     </div>
     <div class="panel-heading">{{ article.title }}</div>
     <div class="panel-body">{{ article.content }}</div>
      <div class="panel-footer">{{ article.user.name }}</div>
    </div>
 </div>
</div>
<div class="container text-right">
  <a href='' class="btn btn-default" id="list">목록</a>
 <a href='' class="btn btn-default" id="update"> 수정</a>
  <a href='' class="btn btn-default" id="delete">삭제</a>
</div>
{% endblock %}
                                                                              수정
```

- 게시판 상세 조회 (Read)
 - board/views.py

```
def detail(request, id):
    # select * from article where id = ?
    article = Article.objects.get(id=id)
    context = {
        'article' : article
    }
    return render(request, 'detail.html', context)
```

board/urls.py

- 게시판 상세 조회 (Read)
 - http://localhost:8000/article/detail/1/



- 게시판 수정 (Update)
 - templates/update.html

```
{% extends 'base.html' %}
{% block content %}
<div class="jumbotron">
  <div class="container text-center">
    <form method="post" action="/article/update/{{ article.id }}/">
      {% csrf token %}
      <div class="form-group">
        <label for="title">Title:</label>
        <input type="text" class="form-control" name="title"</pre>
            id="title" value="{{ article.title }}">
      </div>
      <div class="form-group">
        <label for="content">Content:</label>
        <textarea class="form-control" rows="5" name="content"</pre>
            id="content">{{ article.content }}</textarea>
      </div>
      <button type="submit" id="complete" class=</pre>
                                                                    Title:
        수정
      </button>
                                                                   Content:
    </form>
  </div>
</div>
                                                                    글쓰기
{% endblock %}
```

- 게시판 수정 (Update)
 - templates/update_success.html

templates/update_fail.html

```
{% extends 'base.html' %}
{% block content %}

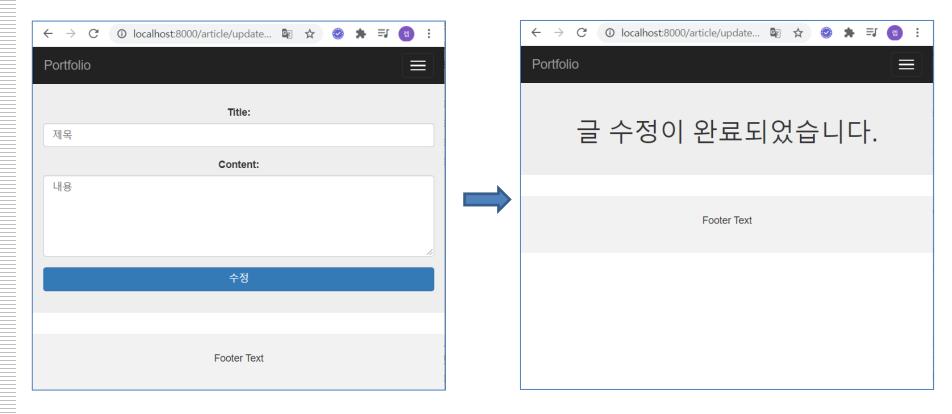
<div class="jumbotron">
        <div class="container text-center">
              <h1>잘못된 요청입니다.</h1>
        </div>
        </div>
{% endblock %}
```

- 게시판 수정 (Update)
 - board/views.py

```
def update(request, id):
 # select * from article where id = ?
  article = Article.objects.get(id=id)
  if request.method == 'POST':
   title = request.POST.get('title')
    content = request.POST.get('content')
   try:
      # update article set title = ?, content = ? where id = ?
      article.title = title
      article.content = content
     article.save()
      return render(request, 'update success.html')
    except:
      return render(request, 'update_fail.html')
  context = {
    'article' : article
  return render(request, 'update.html', context)
```

- 게시판 수정 (Update)
 - board/urls.py

- 게시판 수정 (Update)
 - http://localhost:8000/article/update/1/



id	title	content	user_id
필터	필터	필터	필터
1	제목수정	내용수정	1

- 게시판 삭제 (Delete)
 - templates/detail.html

```
{% extends 'base.html' %}
{% block content %}
<div class="container" style='margin-top:30px;'>
  <div class="panel-group">
    <div class="panel panel-default">
      <div class="panel-heading" style='background-color: beige;'>
        {{ article.id }}번
     </div>
     <div class="panel-heading">{{ article.title }}</div>
     <div class="panel-body">{{ article.content }}</div>
      <div class="panel-footer">{{ article.user.name }}</div>
    </div>
  </div>
</div>
<div class="container text-right">
  <a href='' class="btn btn-default" id="list">목록</button>
  <a href='' class="btn btn-default" id="update">수정</button>
 <a href='/article/delete/{{ article.id }}/' class="btn btn-default" id="delete">
    삭제
  </a>
</div>
{% endblock %}
```

- 게시판 삭제 (Delete)
 - templates/delete_success.html

```
{% extends 'base.html' %}
{% block content %}

<div class="jumbotron">
        <div class="container text-center">
              <h1>글 삭제가 완료되었습니다.</h1>
        </div>
</div>
{% endblock %}
```

templates/delete_fail.html

```
{% extends 'base.html' %}
{% block content %}

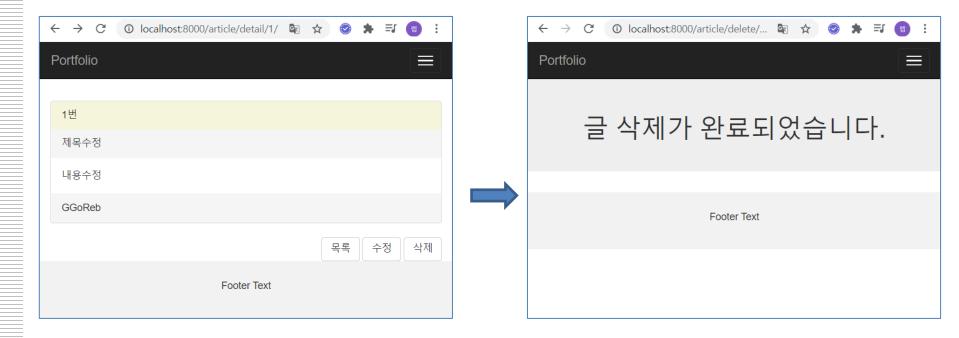
<div class="jumbotron">
        <div class="container text-center">
              <h1>잘못된 요청입니다.</h1>
        </div>
        </div>
{% endblock %}
```

- 게시판 삭제 (Delete)
 - board/views.py

```
def delete(request, id):
    try:
        # select * from article where id = ?
        article = Article.objects.get(id=id)
        article.delete()
        return render(request, 'delete_success.html')
    except:
        return render(request, 'delete_fail.html')
```

board/urls.py

- 게시판 삭제 (Delete)
 - http://localhost:8000/article/delete/1/



id	title	content	user_id
필터	필터	필터	필터