

Mini Project 4

Aim: Using the Django web-programming framework, create the Python web application provided in the Tutorial sections (Part 01-06) of the Django Framework documentation page from the following links:

- <https://docs.djangoproject.com/en/1.5/intro/tutorial01/>
- <https://docs.djangoproject.com/en/1.5/intro/tutorial02/>
- <https://docs.djangoproject.com/en/1.5/intro/tutorial03/>
- <https://docs.djangoproject.com/en/1.5/intro/tutorial04/>
- <https://docs.djangoproject.com/en/1.5/intro/tutorial05/>
- <https://docs.djangoproject.com/en/1.5/intro/tutorial06/>

Project Description:

1. The tutorials 01 through 06 gradually help us build a web application using Django framework
2. It'll consist of two parts:
 - a. A public site that lets people view polls and vote in them.
 - b. An admin site that lets you add, change and delete polls.

Installation:

1. Django 1.5
2. Python 2.7
3. DB : Sqlite 3 (comes with Python)
4. Django Web Server (comes with Python)
5. OS : Mac OS x

Compile and run-time requirements

1. The Django Server needs to be started on the console – run

```
python manage.py runserver
```

2. ADMIN SITE: Navigate to the <http://127.0.0.1:8000/admin/> in the browser for accessing the admin portal
3. PUBLIC SITE: Navigate to localhost:8000/polls/ in order to access the application and poll

Project Insight:

1. Creation of basic Poll Application

- The following creates a basic poll application framework, where the 'mysite' is the folder that stores all the code

`django-admin.py startproject mysite`

- Following is the framework structure:

```
mysite/
    manage.py
    mysite/
        __init__.py
        settings.py
        urls.py
        wsgi.py
```

- We need to setup the database by configuring: `mysite/settings.py`

- Following directory structure will house the poll application

```
- python manage.py startapp polls
- polls/
    __init__.py
    models.py
    tests.py
    views.py
```

- We can invoke the python shell by:

`python manage.py shell`

- We will create the respective model, view and url files in order to create the entire poll application
- We can access the poll application from the admin site and customize the django administration page after certain configurations
- The admin site requires a super user username and password
- We can set up templates depending on our application needs
- We can set up different forms and process the data entered by the user at the backend
- We can thus create a poll application by modifying the model / view and controller, components of django framework

2. Testing the Poll App:

- We can modify the `poll/test.py` file to add test case classes in order to verify the correctness of the code using the following command

`python manage.py test polls`

3. Aesthetics:

- Aside from the HTML generated by the server, web applications generally need to serve additional files — such as images, JavaScript, or CSS — necessary to render the complete web page. In Django, we refer to these

files as “static files”

- We can customize our app’s look and feel by creating a style.css file and adding its reference in the index.html file within the polls/static/polls and polls/templates/polls/ folders respectively

Expected Results:

1. ADMIN SITE:

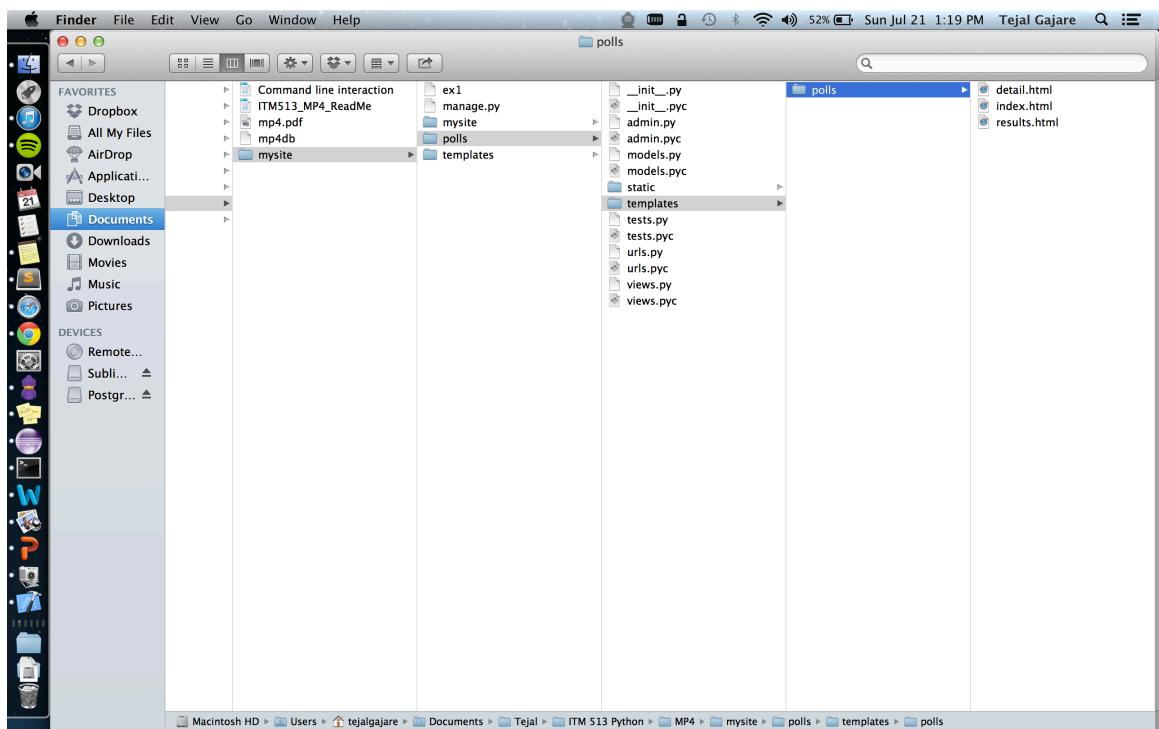
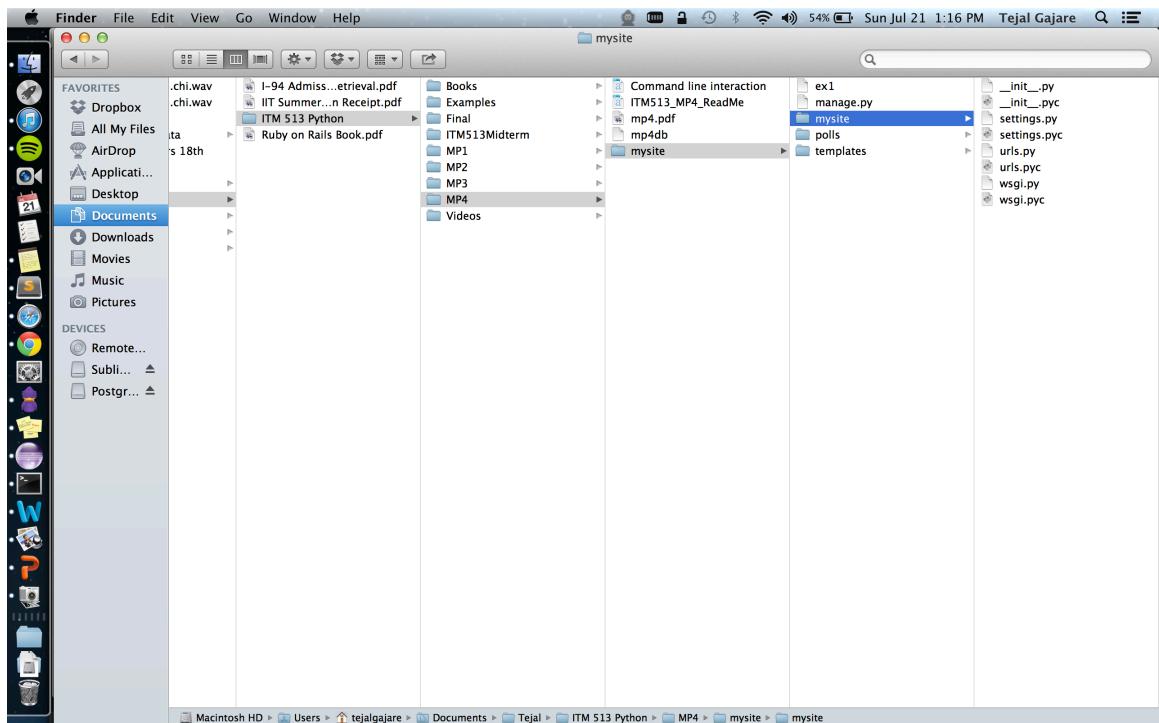
- The user can navigate to the admin site and modify the poll
- The user can view all the existing questions in the db and update them if necessary
- The user can view the timestamp of the poll under the Date Published column and can also check if the poll was created recently
- The user can search the poll by keyword from the question field
- The user is provided with filters for better search and organization of the application
- The user can enter a specific question and add/edit/delete the Question/Choices for each question
- The user can also view the votes received for each choice/ modify the count of votes and save the changes
- The user can view the history of activities performed on any question along with details like date of update, user who updated the info and so on

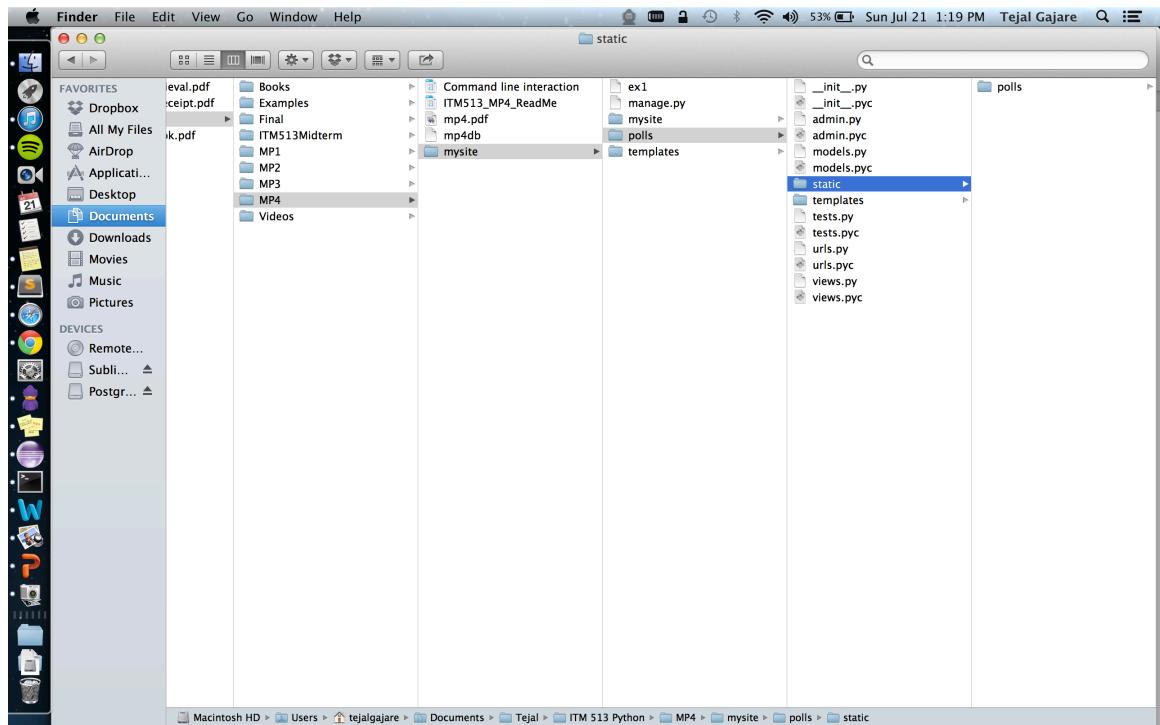
2. PUBLIC SITE:

- When the user navigates to the public portal he can view the list of questions available to poll
- The user can click on any question and view the choices available for that specific question
- The user can choose any one choice at a time and vote
- After the user clicks on Vote button, he can view the total number of votes for every choice so far
- The user can vote again for the same question if wanted or go back and vote for some other question

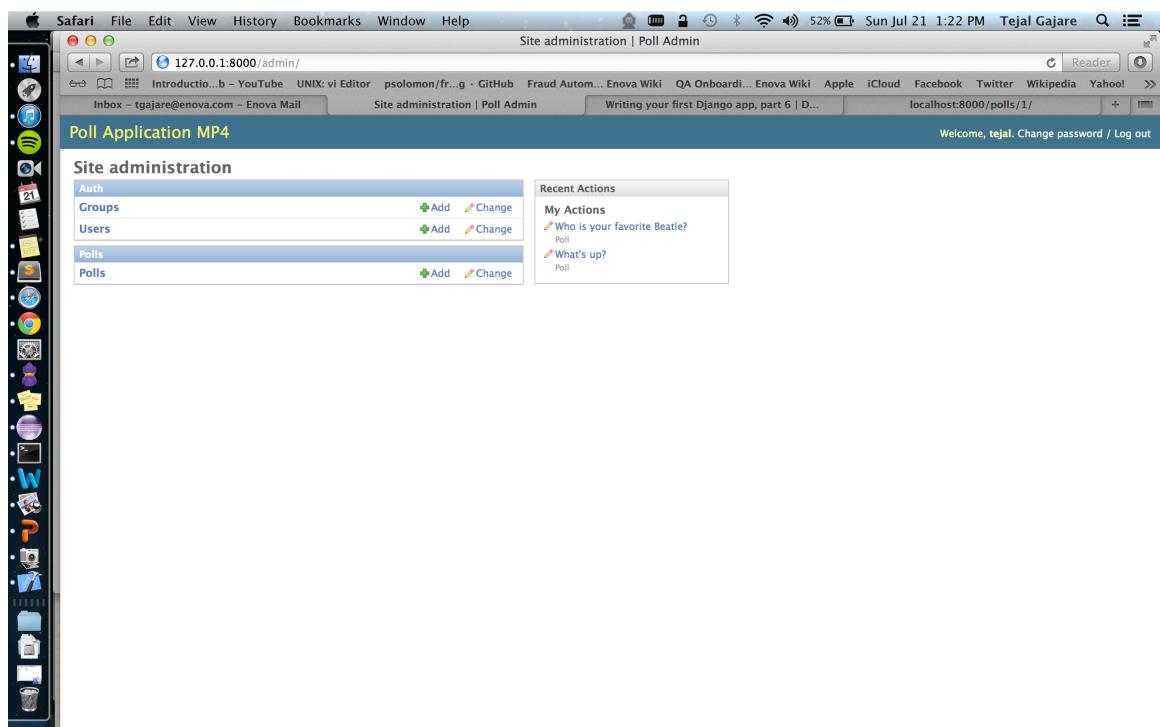
Screen Captures:

1. Folder Structure:





2. Admin Site Functionality:



Select poll to change | Poll Admin

127.0.0.1:8000/admin/polls/poll/

Inbox - tgajare@enova.com - Enova Mail Select poll to change | Poll Admin Writing your first Django app, part 6 | D... localhost:8000/polls/1/

Welcome, tejaj. Change password / Log out

Poll Application MP4

Home > Polls > Polls

Select poll to change

Search

2013 July 19 July 20

Action: ----- Go 0 of 2 selected

| Question | Date published | Published recently? |
|--|---------------------------|---------------------|
| Who is your favorite Beatle? | July 19, 2013, 10:57 p.m. | ● |
| What's up? | July 19, 2013, 6:15 p.m. | ● |

2 polls

Add poll +

Filter

By date published

- Any date
- Today
- Past 7 days
- This month
- This year

Select poll to change | Poll Admin

127.0.0.1:8000/admin/polls/poll/?q=Beatle

Inbox - tgajare@enova.com - Enova Mail Select poll to change | Poll Admin Writing your first Django app, part 6 | D... localhost:8000/polls/1/

Welcome, tejaj. Change password / Log out

Poll Application MP4

Home > Polls > Polls

Select poll to change

Beatle Search 1 result (2 total)

2013 July 20

Action: ----- Go 0 of 1 selected

| Question | Date published | Published recently? |
|--|---------------------------|---------------------|
| Who is your favorite Beatle? | July 19, 2013, 10:57 p.m. | ● |

1 poll

Add poll +

Filter

By date published

- Any date
- Today
- Past 7 days
- This month
- This year

Safari File Edit View History Bookmarks Window Help

Change poll | Poll Admin

Inbox - tgajare@enova.com - Enova Mail Change poll | Poll Admin Writing your first Django app, part 6 | D... localhost:8000/polls/1/ Welcome, tejaj. Change password / Log out

Poll Application MP4

Home > Polls > Polls > Who is your favorite Beatle?

Change poll

Question: Who is your favorite Beatle?

Date information (Show)

Choices

| Choice text | Votes | Delete? |
|-------------|-------|--------------------------|
| Paul | 3 | <input type="checkbox"/> |
| John | 1 | <input type="checkbox"/> |
| | 0 | <input type="checkbox"/> |
| | 0 | <input type="checkbox"/> |
| | 0 | <input type="checkbox"/> |

Add another Choice

Delete

Save and add another | Save and continue editing | Save

Safari File Edit View History Bookmarks Window Help

Change history: Who is your favorite Beatle? | Poll Admin

Inbox - tgajare@enova.com - Enova Mail Change history: Who is your favorite Be... Writing your first Django app, part 6 | D... localhost:8000/polls/1/ Welcome, tejaj. Change password / Log out

Poll Application MP4

Home > Polls > Polls > Who is your favorite Beatle? > History

Change history: Who is your favorite Beatle?

| Date/time | User | Action |
|---------------------------|-------|---|
| July 19, 2013, 11:20 p.m. | tejal | Added choice "Paul". Added choice "John". |

3. Public Site Functionality:

The image contains two screenshots of a Safari browser window, both displaying a poll application at localhost:8000/polls/. The top screenshot shows a list of poll questions:

- Who is your favorite Beatle?
- What's up?

The bottom screenshot shows the details for the second poll, titled "What's up?". The question text is "What's up?". There are two options listed:

- Not much
- The sky

A "Vote" button is visible below the options.

