System Deployment Guide
Explore It Platform
Created by JAVAlimos

Requirements
- Full access to the project repository on Github.
- A server with Ubuntu

Deployment
1. Access to the server via SSH
2. Install MySQL using the following steps by running the command apt install mysql-server
3. Clone the repository on /var/www/exploreit/ directory
4. Create a virtual environment on /home/virtuals/exploreit/ directory using the command python3 -m venv exploreit
5. Activate the virtual environment using source /home/virtuals/exploreit/bi/activate
6. Go to the project folder and install the requirements.txt running the command pip install -r requirements.txt
7. Edit settings.py located on exploreit/exploreit_app/settings.py changing the following variables:
   - STATIC_ROOT = os.path.join(BASE_DIR, 'static')
   - ALLOWED_HOSTS = ['your server IP address']
8. Install MySQL Database Connector:
   - sudo apt install python3-dev
   - sudo apt install python3-dev libmysqlclient-dev default-libmysqlclient-dev
   - pip install mysqlclient
9. Create the Database:
   - sudo mysql -u root
   - CREATE DATABASE exploreit;
   - CREATE USER 'djangouser'@'%' IDENTIFIED WITH mysql_native_password BY 'password';
   - GRANT ALL ON blog_data.* TO 'djangouser'@'%';
   - FLUSH PRIVILEGES;
10. Add the MySQL Database Connection to the App
    - On settings.py:
      ```
      DATABASES = {
          'default': {
              'ENGINE': 'django.db.backends.mysql',
              'OPTIONS': {
                  'read_default_file': '/etc/mysql/my.cnf',
              },
          }
      }
      ```
    - sudo nano /etc/mysql/my.cnf:

```
...
[client]
database = blog_data
user = djangouser
password = your_actual_password
default-character-set = utf8
```

- sudo systemctl daemon-reload
- sudo systemctl restart mysql

- python manage.py makemigrations
- python manage.py createsuperuser
- python manage.py collectstatic
- sudo ufw allow 8000
- sudo nano /etc/systemd/system/gunicorn.service

```
[Unit]
Description=gunicorn daemon
After=network.target

[Service]
User=sammy
Group=www-data
WorkingDirectory=/home/sammy/myproject
ExecStart=/home/sammy/myproject/myprojectenv/bin/gunicorn          --
access-logfile - --workers 3 --bind unix:/home/sammy/myproject/myproject.sock
myproject.wsgi:application

[Install]
WantedBy=multi-user.target
```

- sudo systemctl start gunicorn
- sudo systemctl enable gunicorn
- sudo systemctl daemon-reload
- sudo systemctl restart gunicorn

11. Configure Nginx to Proxy Pass to Gunicorn
    - sudo nano /etc/nginx/sites-available/exploreit

```
server {
 listen 80;
server_name server_domain_or_IP;

location = /favicon.ico { access_log off; log_not_found off; }
```

```
    location /static/ {
root /var/www/exploreit;
  }

    location / {
 include proxy_params;
proxy_pass http://unix:/var/www/exploreit/exploreit.sock;
        }
    }
```

- sudo ln -s /etc/nginx/sites-available/myproject /etc/nginx/sites-enabled
- sudo nginx -t
- sudo systemctl restart nginx
- sudo ufw delete allow 8000
- sudo ufw allow 'Nginx Full'

For platform updates:
1. run cd /var/www/exploreit
2. run git pull
3. Enter credentials
4. Run service nginx restart
5. Apply migrations if necessary