SKILLVERTEX MAJOR PROJECT

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Introduction:

The goal of this project is to create a website using Django Web Framework, HTML and a bit of CSS. The website contains 5 separate sections: Home Page, About Us, Gallery, Registration and Contact Us. The user can navigate among the various sections through buttons provided at the top left of each page. As an example, a website for an imaginary amateur photography club has been created.

Requirements:

- Any modern – day PC
- Python 3.6 or higher
- Any Code Editor (PyCharm , VSCode, Notepad++, etc.)
- Internet access
- Django (version 3.9 or higher)

Project Overview:

This project uses Django (and a bit of HTML & CSS) to create the website. The steps involved are as follows:

1. Creating a Virtual Environment & Installing Django:
   - i) Open Command Prompt
   - ii) Create a virtual environment by typing: “python -m venv venv”
   - iii) Activate the virtual environment by typing: “cd venv/Scripts/activate”
   - iv) Install Django by typing: “python -m pip install django”

2. Creating a superuser:
   - i) Use the command: python manage.py createsuperuser to create credentials for Django at http://127.0.0.1:8000/admin/

3. Creating the website:
   - i) Use the command: django-admin startproject django_project . to create a mange.py file
   - ii) Use the command: django-admin startapp web_app to create an application
   - iii) The following files are of importance to the website: urls.py, settings.py and views. py.
   - iv) urls.py: It contains the tuple “urlpatterns” which defines the mapping between URLs and views.
   - v) settings.py: It holds all the configuration values required for the application to work.
   - vi) views.py: It receives a HTTP request and generates a HTTP response
   - vii) An HTTP request is sent to urls.py. It gets forwarded to the appropriate class in views.py. The views.py file exchanges data with models.py and along with the template for that particular page, an HTTP response is generated

4. Databases:
   i) Use the command: python manage.py makemigrations to record changes made to files such as views.py and models.py
   ii) Use the command: python manage.py migrate to save the changes made and put these into effect.

5. Templates:
   i) The following HTML templates have been used to create the website:
      a) base.html: This file contains the HTML code for navigating through the various pages of the website.

      b) home.html: This file contains the HTML code for the home page, which displays a brief history of photography.

      c) about_us.html: This file provides information about the Indian Photography Club and its members.

      d) gallery.html: This file uses HTML and CSS to show a collage of images.

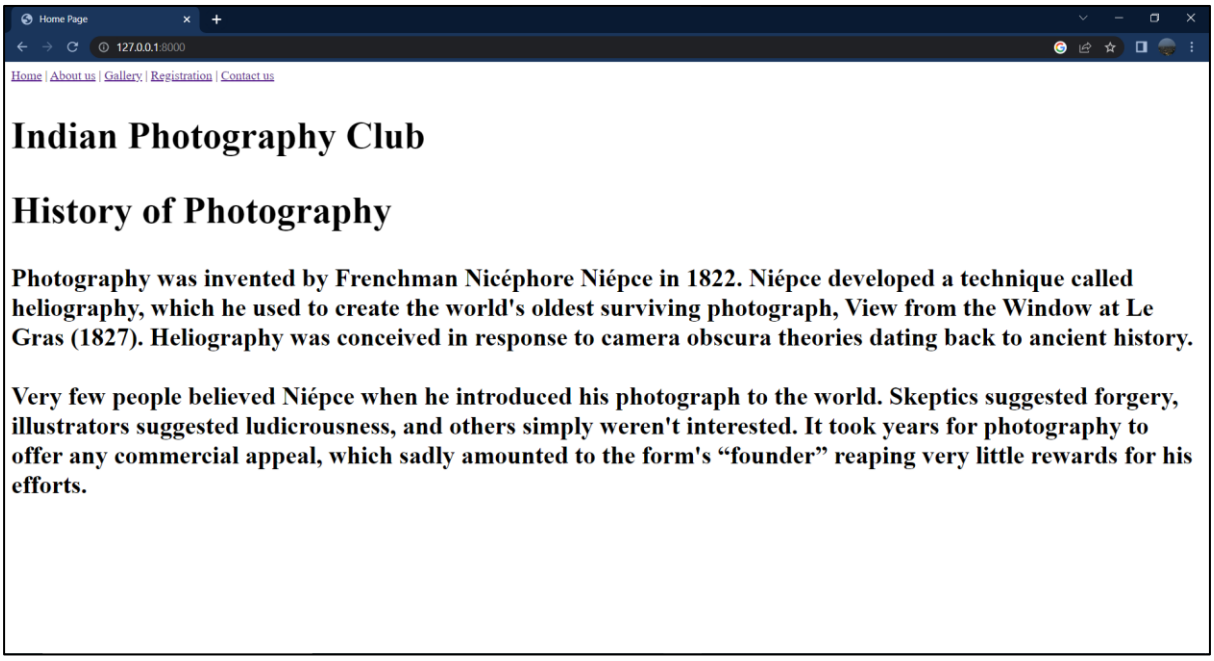
      e) registration.html: This file uses HTML to create an application form for joining the club.
      f) contact_us.html: This file displays contact information for the club.

6. Running the Code:
   i) The code is run using the command: python manage.py runserver
   ii) The link http://127.0.0.1:8000/ is used to view the final project

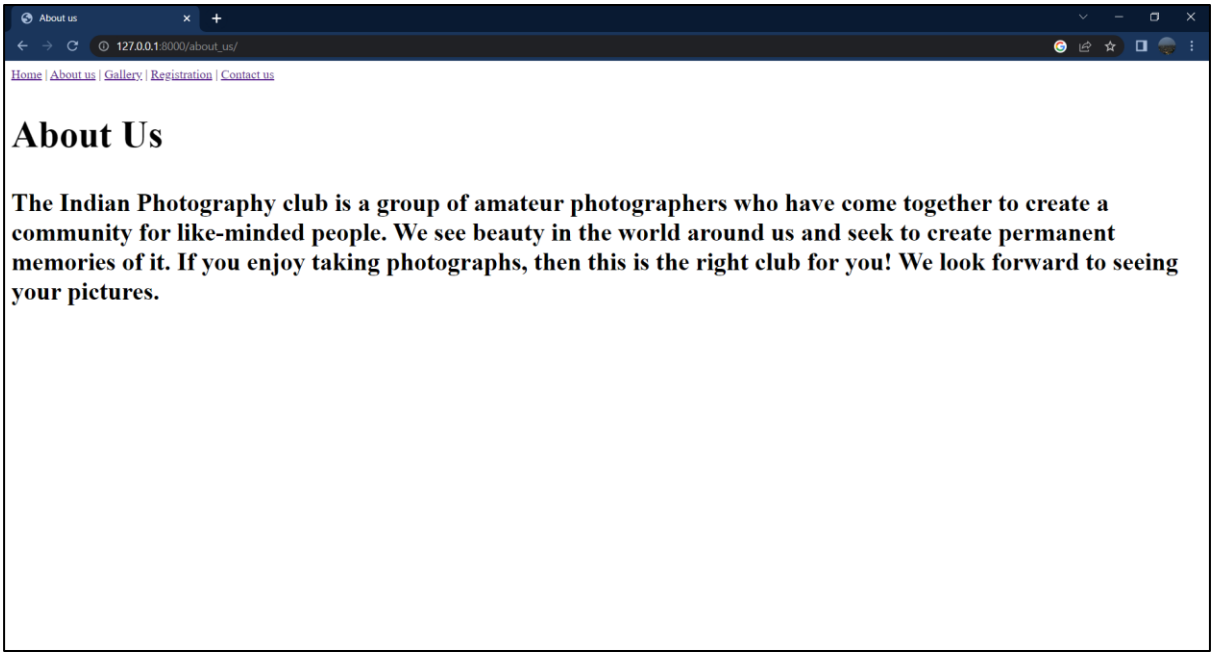
Results:

The outcome of this project has been shown below:

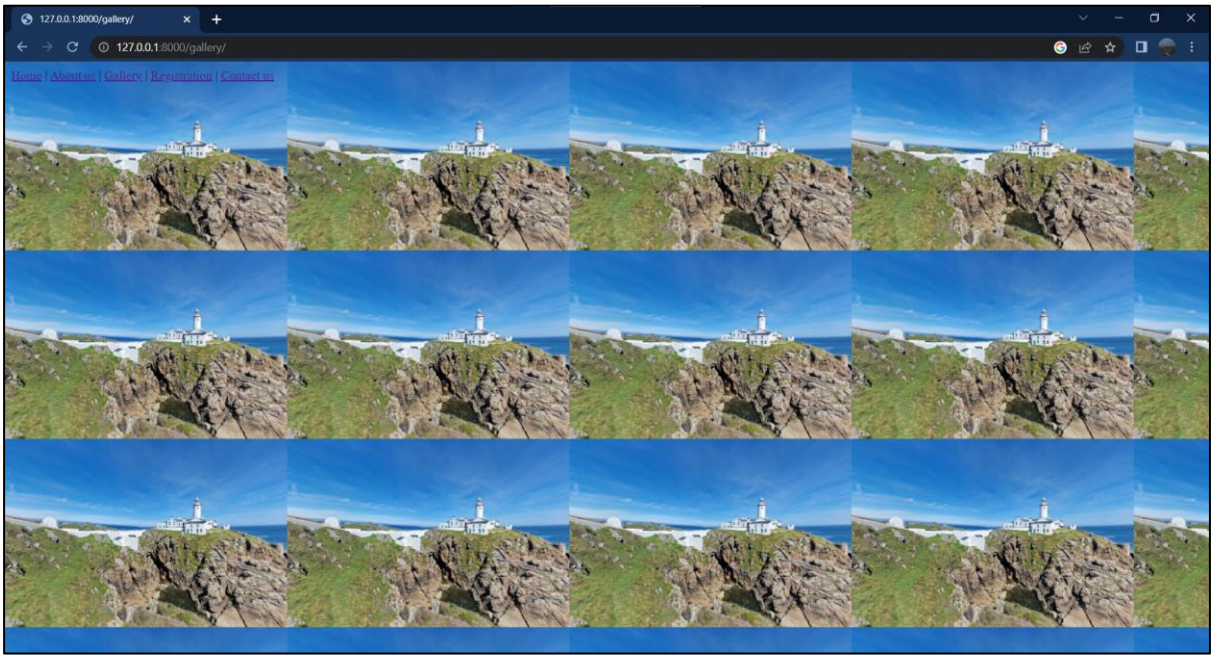
1. Home page



2. About us

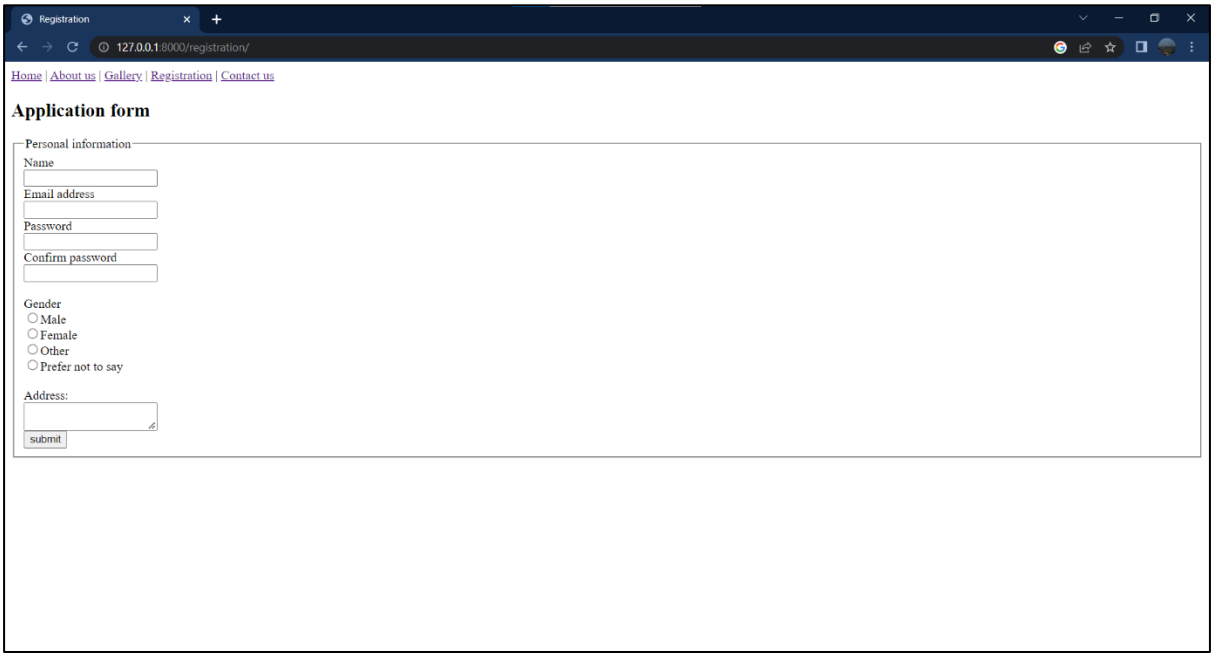


3. Gallery

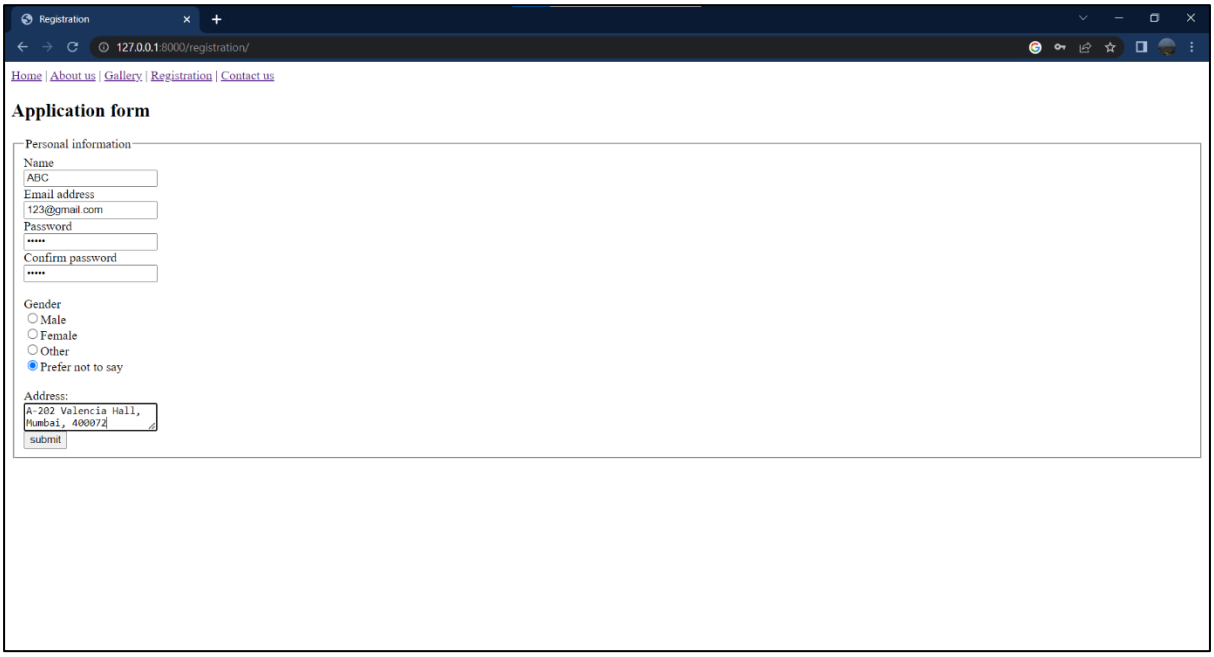


4. Registration

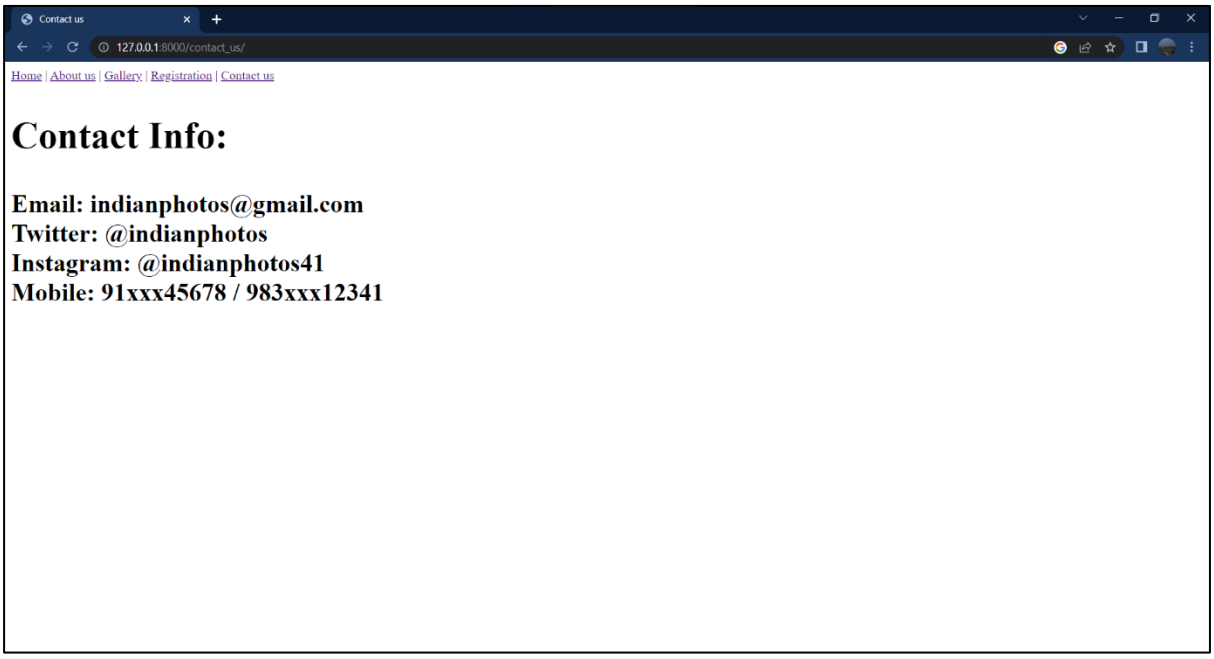
i) Empty Form



ii) Filled form



5. Contact us



Conclusion:

Thus, a website with five sections, namely, Home Page, About Us, Gallery, Registration and Contact Us has been created. This is a sample website for an amateur photography club. The model can be further edited to create websites for most kinds of corporations, such as banks, tech companies, educational institutions, small businesses and others.