

USER MANUAL DJANGO WEB APPLICATION

SUBMITTED BY

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INTRODUCTION TO PROJECT

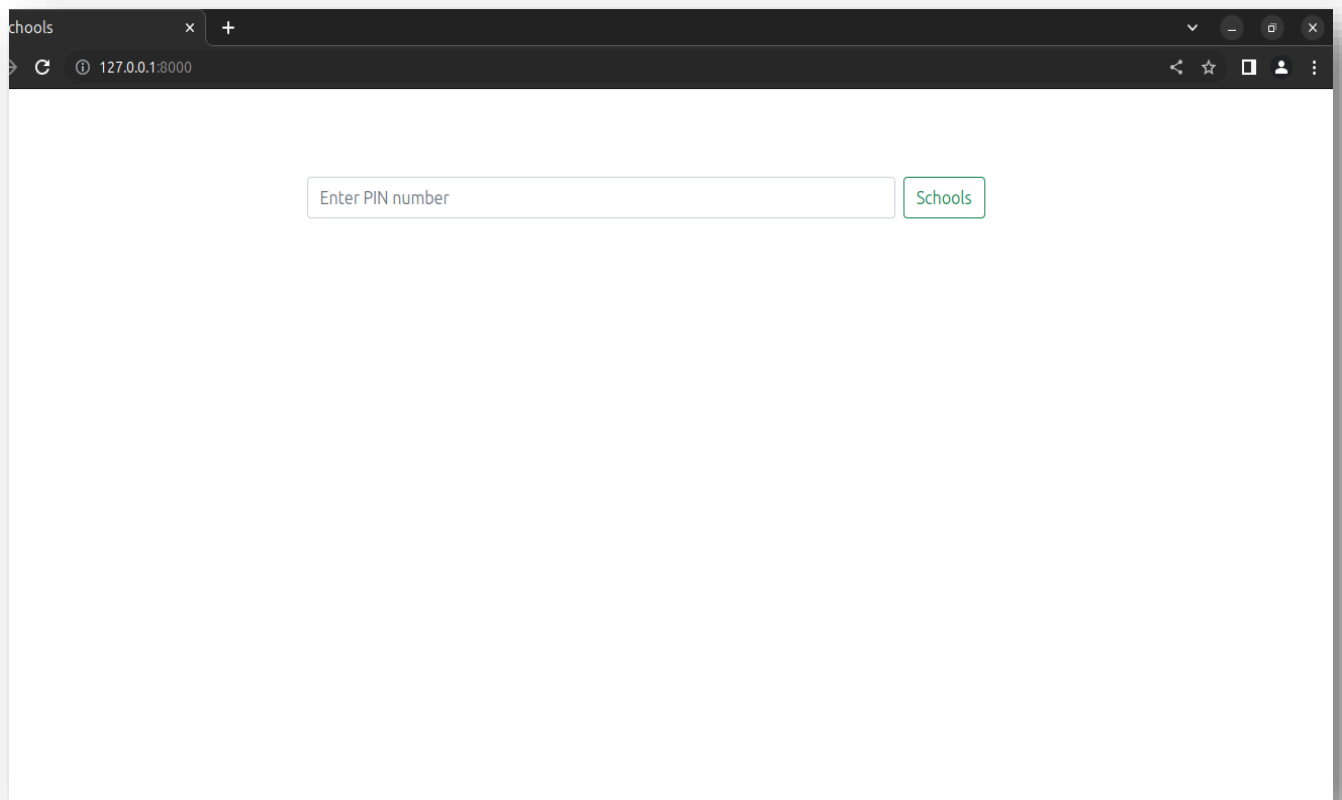
IN THIS PROJECT WE CREATE A SINGLE-PAGE WEB APPLICATION USING DJANGO, A POWERFUL PYTHON WEB FRAMEWORK. THE GOAL IS TO BUILD AN APPLICATION THAT HELPS USERS FIND THE MOST FUEL-EFFICIENT ROUTE FOR VISITING SCHOOLS IN A SPECIFIC REGION BASED ON THE PROVIDED PINCODE.

THE TASK IS TO DEVELOP A SINGLE-PAGE DJANGO WEB APPLICATION THAT ALLOWS USERS TO ENTER A PINCODE AND OBTAIN A LIST OF SCHOOLS IN THAT REGION. THE APPLICATION SHOULD THEN CALCULATE THE MOST FUEL-EFFICIENT ORDER TO VISIT THESE SCHOOLS AND DISPLAY THE OPTIMIZED ROUTE TO THE USER.

APPLICATION FEATURES

LANDING PAGE: -

THIS IS A LANDING (INDEX) PAGE WHERE USER ENTER THE PINCODE FOR THEIR REQUIRED RESON.USER NEED TO ENTER VALID PINCODE. BASED ON USER INPUT IT SHOWS LIST ON SCHOOLS.



SCHOOL LISTING:

WHEN USER ENTERED VALID PINCODE BASED ON THEIR INPUT THERE SHOWS ALL SCHOOLS LOCATED IN THAT SPECIFIC RESON.

PAGINATION IS ALSO THEIR IF THERE IS NO SCHOOL ON LIST WHICH IS SHOWS THEN USER CAN GO TO NEXT PAGE ON CLICK ON NEXT, USER CAN ASLO GO BACK TO PREVIOUS PAGE AS WELL.

Enter PIN number

All Schools with PIN 275305

Name	Address	Pincode	Distance
Bapu INter College	kopaganj	275305	180

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ROUTE OPTIMIZATION:

K-NEAREST NEIGHBOURS IS ONE OF THE MOST BASIC YET ESSENTIAL CLASSIFICATION ALGORITHMS IN MACHINE LEARNING. IT BELONGS TO THE SUPERVISED LEARNING DOMAIN AND FINDS INTENSE APPLICATION IN PATTERN RECOGNITION, DATA MINING, AND INTRUSION DETECTION.

MANHATTAN DISTANCE

THIS DISTANCE METRIC IS GENERALLY USED WHEN WE ARE INTERESTED IN THE TOTAL DISTANCE TRAVELED BY THE OBJECT INSTEAD OF THE DISPLACEMENT. THIS METRIC IS CALCULATED BY SUMMING THE ABSOLUTE DIFFERENCE BETWEEN THE COORDINATES OF THE POINTS IN N-DIMENSIONS.

$$d(x, y) = \sum_{i=1}^n |x_i - y_i|$$

IN THIS PROJECTS WE USE DEFAULT USER LOCATION FOR OPTIMIZED PATH FROM THAT LOCATION TO SCHOOL LOCATION. FOR CHANGE THE LOCATION ON USER WE NEED TO GO TO VIEWS.PY FILE IN THE MAIN FOLDER OF THE PROJECT IN THAT FILE WE NEED TO CHANGE USER_LATITUDE AND USER_LONGITUDE. WE ALSO PROVIDE RANDOMLY SCHOOL LOCATION FOR ROUTE OPTIMIZATION.

THE SCHOOL LIST SHOWS THE DATA BASED ON NEAREST TO THE USER THIS WILL ALWAYS SHOWS SORTED DATA BASED ON USER AND SCHOOL OPTIMIZED DISTANCE.

HERE WE CAN SEE THE DISTANCE ALSO IN THE SCHOOL LIST ON THE PAGE.

Enter PIN number

Schools

All Schools with PIN 275305

Name	Address	Pincode	Distance
BSS	kopaganj	275305	690

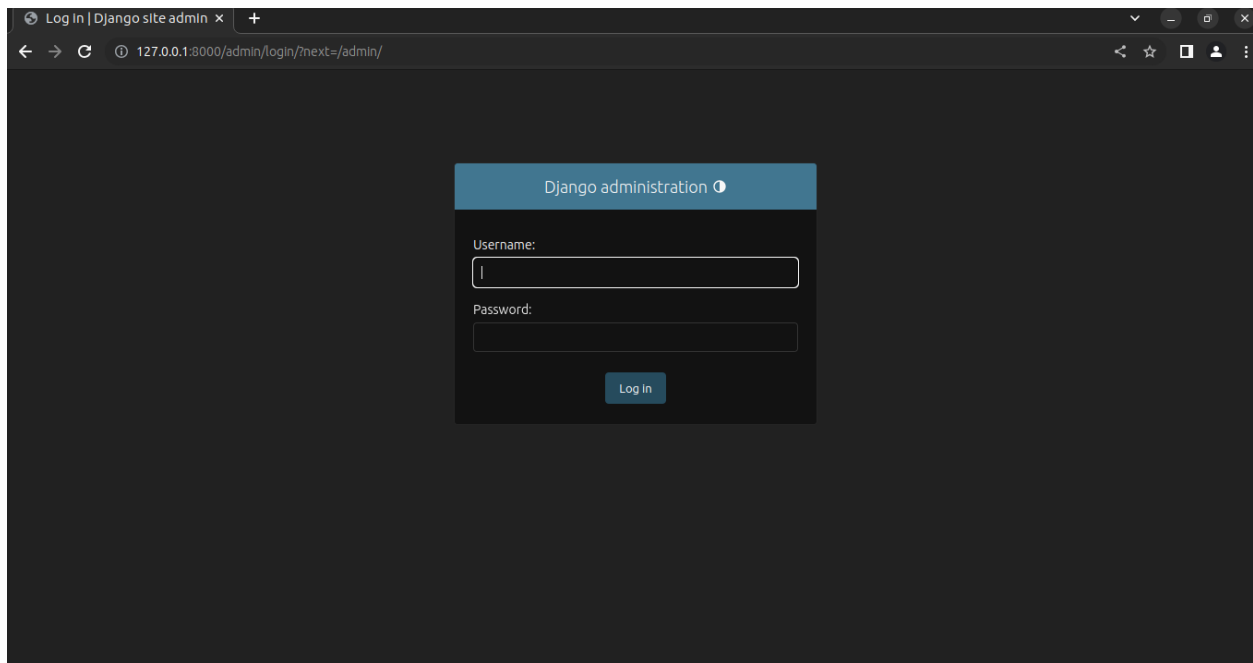
« First Previous 4



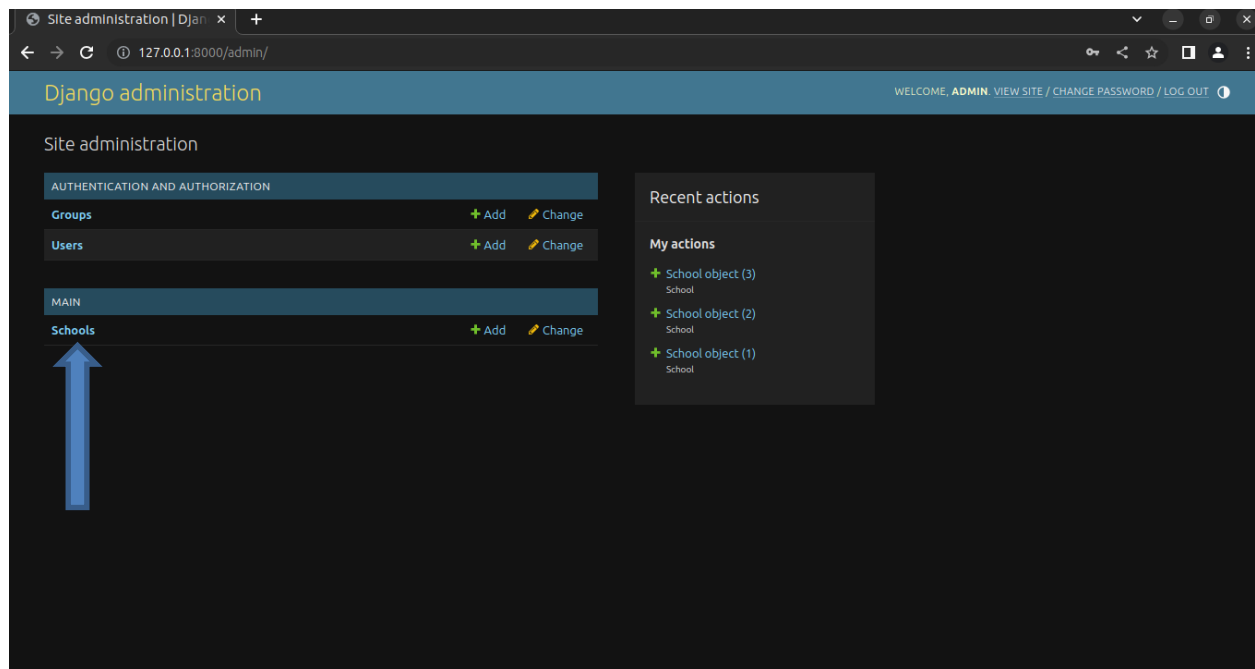
ADMIN PANEL

THERE IS ADMIN PANEL WHERE WE CAN MANAGE THE SCHOOL DATA WE CAN ENTER NEW SCHOOL DATA DELETE DATA UPDATE ALL CRUD OPERATION CAN BE PERFORMED USING ADMIN PANEL.

FIRST WE NEED TO LOGIN IN THE ADMIN PANEL USING ADMIN ID AND PASSWORD.

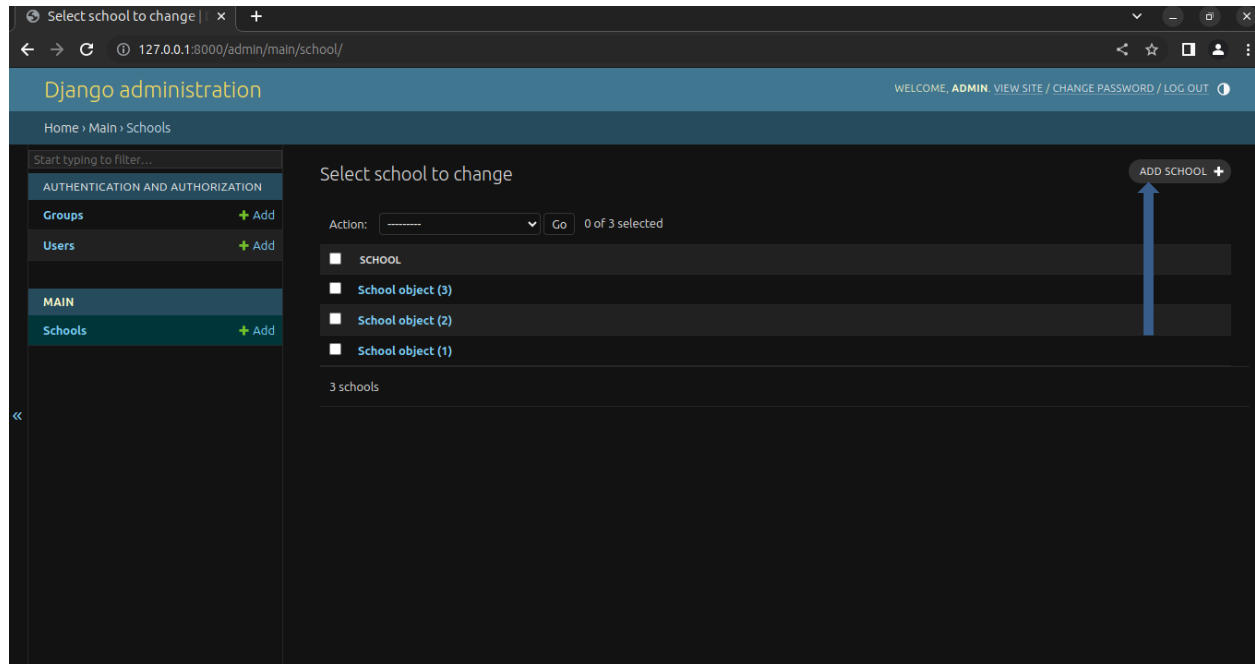


AFTER LOGIN WE CAN SEE ALL THE OPTION THAT MEANS DASHBOARD FOR ADMIN OPEN WHERE WE CAN SEE MANY OPTIONS LIKE USER GROUP SCHOOL.



WHEN WE CLICK ON THE SCHOOL THEN THERE WILL BE OPEN A PAGE WHERE WE CAN MANAGE ALL DATA OF SCHOOLS.

WHEN WE CLICK ON ADD SCHOOL THE THIS PAGE WILL BE OPEN.



WHEN WE CLICK ON ADD SCHOOL THEN THIS PAGE WILL BE OPEN FOR DD NEW SCHOOL DATA. AFTER ENTER DATA WE CLICK ON SAVE THEN IS WILL ME STORED IN DATABASE.

Browser: Add school | Django site | 127.0.0.1:8000/admin/main/school/add/

Django administration WELCOME, ADMIN. VIEW SITE / CHANGE PASSWORD / LOG OUT

Home > Main > Schools > Add school

Start typing to filter...

AUTHENTICATION AND AUTHORIZATION

- Groups + Add
- Users + Add

MAIN

- Schools + Add

Add school

Name: Sunbeam school


Address: Mau U.P.

Pincode: 275101

Latitude: 1234

Longitude: 5647

SAVE Save and add another Save and continue editing



HERE THE DATA SAVE SUCCESSFULLY.

Browser: Select school to change | 127.0.0.1:8000/admin/main/school/

Django administration WELCOME, ADMIN. VIEW SITE / CHANGE PASSWORD / LOG OUT

Home > Main > Schools

Start typing to filter...

AUTHENTICATION AND AUTHORIZATION

- Groups + Add
- Users + Add

MAIN

- Schools + Add

The school "School object (4)" was added successfully.

Select school to change ADD SCHOOL +

Action: Go 0 of 4 selected

- ☐ SCHOOL
- ☐ School object (4)
- ☐ School object (3)
- ☐ School object (2)
- ☐ School object (1)

4 schools

