Below are steps to do the project:

→**Set up Environment:**

1. Install Python
2. Install Django (pip install django)
3. Install Django Rest Framework (pip install djangorestframework)

→**Create Project:**

1. Open command prompt and Install the Django Project
   (**Django-admin startproject myproject**)
2. Change directory to project (**cd myproject**)
3. Create the Django application (**python manage.py startapp app1)**

→**Configure Mysql database:**

1. Open mysql command prompt create a new database (**CREATE DATABASE PROJECT)**
2. Open the setting.py in Django project and update the database section

setting.py

```
DATABASES = {
    'default': {
    'ENGINE': 'django.db.backends.mysql',
    'NAME': 'mydatabase',
    'USER': 'your_mysql_user',
    'PASSWORD': 'your_mysql_password',
    'HOST': 'localhost',
    'PORT': '3306',
  }
}
```

3. In setting.py update the installed apps , app1, rest_framework

setting.py

```
INSTALLED_APPS = [
  ...
  'myapp',
  'rest_framework',
]
```

4. Open the modesls.py and create the model

models.py

```
rom django.db import models

# Create your models here.
class User(models.Model):
    Name = models.CharField(max_length=255)
    Phone = models.BigIntegerField(max_length=20)
    Email = models.EmailField(max_length=255)
```

5. Migrate the database use below commands

```
python manage.py makemigrations
python manage.py migrate
```

6. Next create View.py for Your API

View.py

```
from django.shortcuts import render
from app1.models import *
# Create your views here.

def home_view(request):
    response=render(request, "app1/home.html")
    return response

def display_template(request):
    response = render(request, "app1/index.html")
    return response

def display_data(request):
    n=request.GET['name']
    p = request.GET['ph']
    e = request.GET['email']
    try:
        u = User(Name=n, Phone=p, Email=e)
        u.save()
        msg = "Details send successfully.......!"
    except:
```

```python
        msg = "Invalid Details"
    response = render(request, "app1/index.html", context={'msg':msg})
    return response


def user_search_template(request):
    response = render(request, "app1/search.html")
    return response



def user_search_data(request):
    context = {}

    if 'search' in request.GET:  # Check if 'search' parameter exists in the GET request
        search_term = request.GET['search']  # Extract the search term (phone number)


        try:
            # Check if the search term is a numberr
            if search_term.isdigit() or len(search_term) ==10:
                # Search by phone number
                user = User.objects.get(Phone=search_term)  # Assuming 'Phone' is the field name in your
model
                context['user'] = user
            # else:
            #     context['number_error']='Invalid mobile number'
            #     response = render(request, 'app1/search.html', context)
            #     return response

            elif search_term.isalnum():

                # Search by name
                user = User.objects.get(Name=search_term)
                # If user is found, add details to the context
                context['user'] = user



        except User.DoesNotExist:

            context['number_error'] = 'Invalid mobile number'
            response = render(request, 'app1/search.html', context)
            return response
        finally:
            context['spam'] = 'This number is spam.'

    return render(request, "app1/res.html", context)
```

7. Next step is set Up the url.py

```python
from django.contrib import admin
from django.urls import path
from app1.views import *
urlpatterns = [
    path('admin/', admin.site.urls),
    path('', home_view),
    path('store_data/', display_template),
    path('send/', display_data),
    path('search_bar/', user_search_template),
    path('search/', user_search_data),
]
```

➔**Create the Html pages:**

1) In myproject directory create a folder "templates"
2) Next create app1 folder in templates folder
3) In app1 folder create the html pages.

home.html

```html
<!DOCTYPE html>
{% load static%}
<html lang="en">
<head>
  <meta charset="UTF-8">
  <meta name="viewport" content="width=device-width, initial-scale=1.0">
  <title>Document</title>
   <link rel="stylesheet" href="{% static 'css/home.css' %}">
</head>
<body>
<div>
    <h1>Welcome to My Website</h1>
    <div class="button-container">
      <button><a href="/store_data">Store Data</a></button>
      <button><a href="/search_bar">Search Data</a></button>
    </div>
  </div>
</body>
</html>
```

Index.html

```html
<!DOCTYPE html>
{% load static%}
<html lang="en">


<head>
    <meta charset="UTF-8">
    <meta name="viewport" content="width=device-width, initial-scale=1.0">
    <title>Document</title>
     <link rel="stylesheet" href="{% static 'css/index.css' %}">
</head>
<body>
    <form action="/send">
        Name:<input type="text" name="name" id="" required>
        Phone Number: <input type="text" name="ph" id=""  required>
        Email Address: <input type="text" name="email" id="">
        <input type="submit" value="send"> <br> <br>
         {{msg}}
    </form>


</body>
</html>
```

Search.html

```html
<!DOCTYPE html>
{% load static%}
<html lang="en">
  <head>
    <meta charset="UTF-8" />
    <meta name="viewport" content="width=device-width, initial-scale=1.0" />
    <title>Document</title>
    <link rel="stylesheet" href="{% static 'css/search.css' %}">
  </head>
  <body>
    <form action="/search">
      Search: <input type="text" name="search" id="" placeholder="Enter name or phone_number"  required />
      <input type="submit" value="search" />
    <br><br>
    <p class="error">{{ number_error }}</p>
    </form>
  </body>
</html>
```

res.html

```html
<!DOCTYPE html>
{% load static%}
<html lang="en">
<head>
    <meta charset="UTF-8">
    <meta name="viewport" content="width=device-width, initial-scale=1.0">
    <title>Document</title>
    <link rel="stylesheet" href="{% static 'css/res.css' %}">
</head>
  <div class="container">
      {% if error %}
        <p class="error">{{ error }}</p>
      {% endif %}


      {% if user %}
      <div>
        <h2>User Details</h2>
        <ul>
          <li><strong>Name:</strong> {{ user.Name }}</li>
          <li><strong>Phone Number:</strong>
            {% if user.Phone|stringformat:"d"|length == 10 %}
              {{ user.Phone }}
            {% else %}
              <span class="spam-number"> {{ spam }} </span>
            {% endif %}
          </li>
          <li><strong>Email:</strong> {{ user.Email }}</li>
        </ul>
      </div>
      {% endif %}
    </div>
</html>
```

➔ **Create the CSS files for the html pages**
1) In myproject directory create the folder static
2) In static folder create the folder "css"
3) In css create the css files for html pages

➔ **Configure the html and css in setting.py**
   1) Open setting.py and configure the html and css files location

```
TEMPLATES = [

  {

      'BACKEND': 'django.template.backends.django.DjangoTemplates',

      'DIRS': [BASE_DIR/"templates"],

  }



STATIC_URL = 'static/'

STATICFILES_DIRS = [

   os.path.join(BASE_DIR, 'static'),  # Adjust path if needed

]
```

➔ **Run the Server**
   (**Python manage.py run server**)

   http://127.0.0.1:8000/

   click on the link it will open the web pages.

➔ **Check the output if we search a number or name is it visible or not**

➔**Data Base (MYSQL):**

1) I was Taken mysql data base
2) Sample database records

```
+----+---------+--------------------+-----------------------+
| id | Name    | Phone              | Email                 |
+----+---------+--------------------+-----------------------+
|  4 | Nikhil  |         9876543210 | nikhil@gmail.com      |
|  5 | Anil    |         9865472130 | Anil@gmail.com        |
|  6 | Abhi    |         8247034842 | abhi@gmail.com        |
|  7 | karthik |         9000592243 | karthik@gmail.com     |
|  8 | pepsi   |         9638527410 | pepsi@gmail.com       |
|  9 | AAA     |               3256 | a@gmail.com           |
| 10 | Mahesh  |     9874563210254788 | mahesh@gmail.com    |
| 11 | Rohit   |         9654782310 | abc@gmail.com         |
+----+---------+--------------------+-----------------------+
```

"The End "