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Certificate Of Completion

This is to certify that the project titled "E-Library" has been successfully completed by the group members and is hereby submitted to **Aptech** Computer Education.

Project Title: E-LIBRARY MANAGEMENT SYSTEM

Program: Advanced Diploma in Software Engineering (ADSE)

Group Members:

- AKINLOLUWA FOLORUNSHO VICTOR
- SHARON ADESUWA OLUWAWUYI
- TIMILEHIN PAUL OLAIYA

We hereby acknowledge the satisfactory completion of the project by the group members. The project content and execution meet the criteria and standards set for the ADSE program.

ACKNOWLEDGEMENT

We would like to express our heartfelt gratitude to all those who have contributed to the successful completion of this project. It is with their support, guidance, and encouragement that we were able to accomplish this task.

First and foremost, I would like to thank our teacher Mr Precious Oladele, whose valuable insights and unwavering support were instrumental in shaping the direction of this project. Your patience and dedication to helping me understand the project have been invaluable.

We are also deeply indebted to our counsellor who provided us with valuable suggestions, shared their knowledge, and offered moral support throughout the project's duration. Your enthusiasm and camaraderie made this journey more enjoyable.

We extend thanks to our parents and family for their constant encouragement and understanding during the late nights and weekends we all dedicated to this project. Your belief in us was what kept us moving.

We would also like to acknowledge the resources provided by the school library and online research platforms, which were instrumental in gathering information and references for this project.

Thank you to everyone who played a part in making this project possible. Your support has been invaluable, and we are grateful for the opportunity to learn and grow through this experience.

With Sincere Gratitude,

Akinloluwa Folorunsho Victor Sharon Adesuwa Oluwawuyi Timilehin Olaiya Paul

PROBLEM DEFINITION

The project titled "E-Library" is an Online Library Management System is a system which maintains the information about the books present in the library, their authors, the members of library to whom books are issued, library staff and all. This is very difficult to organize manually. Maintenance of all these information manually is a very complex task. Owing to the advancement of technology, organization of an online library becomes much simple.

PROJECT ANALYSIS

The primary objectives of the E-Library Management System project are as follows:

- Efficiently catalog and manage a diverse range of digital and physical resources, including books, journals, e-books, multimedia materials, and more.
- Develop an intuitive and user-friendly interface for both library staff and patrons, making it easy to search, borrow, and return items.
- Ensure that the system is accessible to users with disabilities, complying with relevant accessibility standards.
- Implement robust security measures to protect user data, library resources, and transactions.
- Provide reporting and analytics features to track library usage, resource popularity, and user behavior, enabling data-driven decisions.
- Integrate with external systems, such as online databases, payment gateways, and authentication systems, to enhance functionality.

PROJECT SYNOPSIS

Hardware

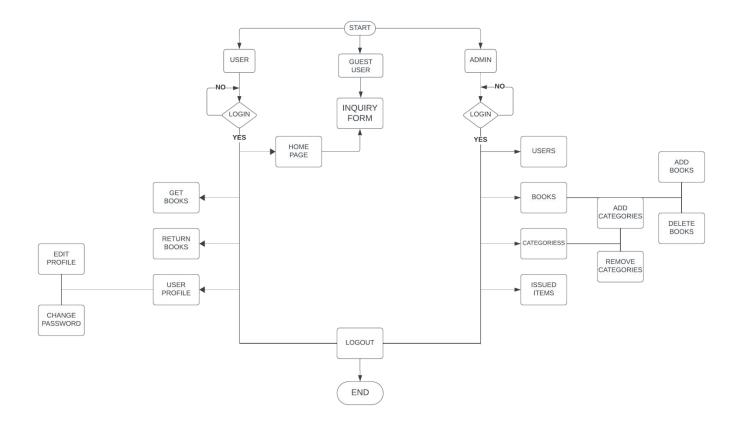
- A minimum computer system that will help you access all the tools in the courses is a pentium 166 or better.
- 128 Megabytes of RAM or better
- Windows 2000 Server (or higher if possible)

Software

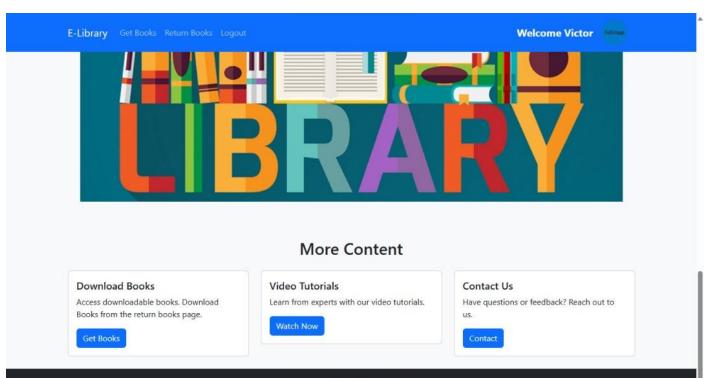
Use software as per your requirement

Windows OS/Python/R/JAVA/Notepad

E-R DIAGRAMS



SNAPSHOTS



© 2023 E-Library Management

E-Library Get Books Return Books Logout

Welcome Victor



Available Books

Search For Book Get **Book Name Author Name** Subject Book Image Invent Your Own Computer Al Sweigart Invent Your Own Computer Games with Python teaches you Get Games with Python how to program in the Python language... Building Democracy for All Robert W. Maloy Interactive Explorations of Government and Civic Life Get Beginning Excel 2019 Noreen Brown, Barbara Lave, Beginning Excel 2019 Get Hallie Puncochar Programming for Computations Svein Linge, Hans Petter A Gentle Introduction to Numerical Simulations with Python Get - Python Langtangen 3.6

Books you have issued







Welcome Victor

Borrowed Books

Title	Author	Issue Date	Return Date
Invent Your Own Computer Games with Python	Al Sweigart	Sept. 8, 2023	None
Building Democracy for All	Robert W. Maloy	Sept. 8, 2023	None
Invent Your Own Computer Games with Python	Al Sweigart	Sept. 6, 2023	Sept. 8, 2023

View More

Your History

Book Name	Author Name	Issue Date	Return Date
Invent Your Own Computer Games with Python	Al Sweigart	Sept. 8, 2023	None
Building Democracy for All	Robert W. Maloy	Sept. 8, 2023	None
Invent Your Own Computer Games with Python	Al Sweigart	Sept. 6, 2023	Sept. 8, 2023

Welcome Yakub





Library Member

Change Password

User Information

Username: Wap

Email: abdulfataiyakub07@gmail.com

Join Date: Aug. 29, 2023, 9:44 p.m.

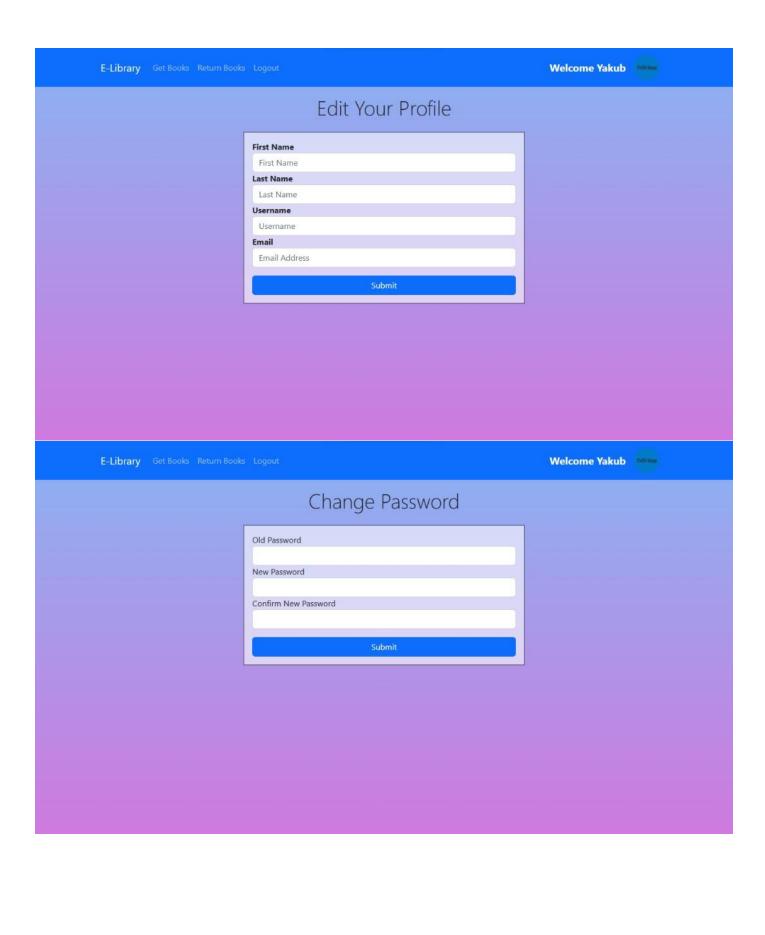
Edit Profile

Logout

Borrowed Books

Title	Author	Issue Date	Return Date
Building Democracy for All	Robert W. Maloy	Sept. 7, 2023	None
Invent Your Own Computer Games with Python	Al Sweigart	Sept. 6, 2023	Sept. 6, 2023
Invent Your Own Computer Games with Python	Al Sweigart	Sept. 6, 2023	None

View More



Welcome, Guest User!

Welcome to the Online E-Library

Explore a world of knowledge at your fingertips

About Us

Our online e-library is committed to providing a vast collection of books and resources for all your reading needs. Whether you're a student, researcher, or simply a book lover, we have something for everyone.

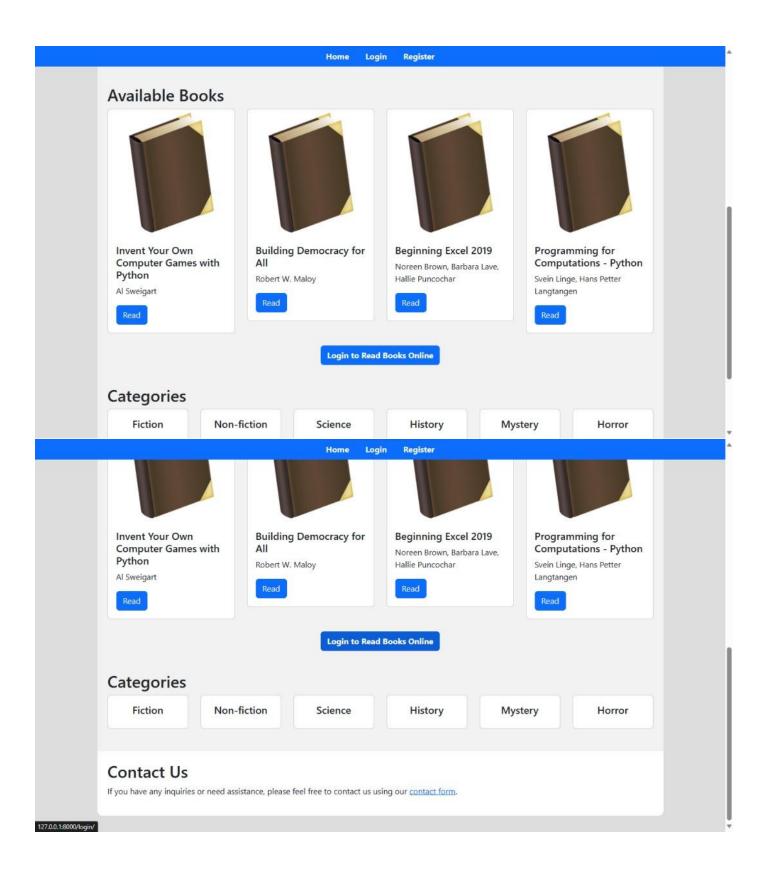
You can explore some limited features as a guest user. Consider logging in or registering to access more features.

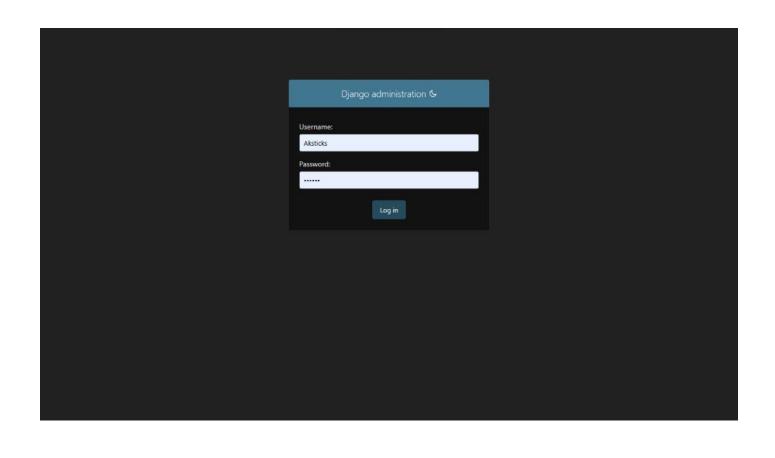
Library Timings

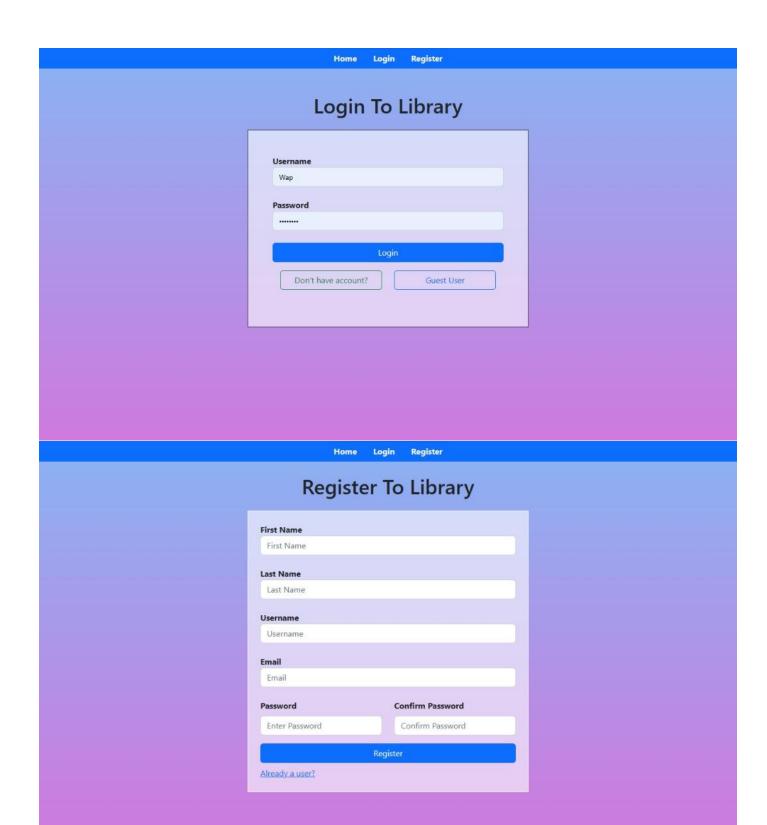
Our library is open for your convenience:

- Monday Friday: 9:00 AM 6:00 PM
- Saturday: 10:00 AM 4:00 PM
- Sunday: Closed

Available Books Home Login Register **Available Books** Programming for Invent Your Own **Building Democracy for** Beginning Excel 2019 Computer Games with Computations - Python Noreen Brown, Barbara Lave, Python Robert W. Maloy Hallie Puncochar Svein Linge, Hans Petter Al Sweigart Langtangen Login to Read Books Online Categories Fiction Non-fiction Science History Mystery Horror







SOURCE CODE

Base.html

```
{% load static %}
<!DOCTYPE html>
<html lang="en">
<head>
  <meta http-equiv="X-UA-Compatible" content="IE=edge">
 <title>E-Library Management System</title>
  <link href="https://cdn.jsdelivr.net/npm/bootstrap@5.2.3/dist/css/bootstrap.min.css"</pre>
rel="stylesheet"
    integrity="sha384-rbsA2VBKQhggwzxH7pPCaAq046Mgn0M80zW1RWuH61DGLwZJEdK2Kadq2F9CUG65"
crossorigin="anonymous">
  <script
src="https://cdn.jsdelivr.net/npm/bootstrap@5.2.3/dist/js/bootstrap.bundle.min.js"
    integrity="sha384-kenU1KFdBIe4zVF0s0G1M5b4hcpxyD9F7jL+jjXkk+Q2h455rYXK/7HAuoJ1+0I4"
    crossorigin="anonymous"></script>
  <script src="https://ajax.googleapis.com/ajax/libs/jquery/3.4.1/jquery.min.js"></script>
  <script src="https://use.fontawesome.com/a83359a6be.js"></script>
  <style>
    body {
      background: linear-gradient(#89b4f4, #cf7ade);
      background-size: cover;
      background-attachment: fixed;
      background-repeat: no-repeat;
    #profile-img {
      border-radius: 50%;
    /* issue, return books and history styling */
    table {
      border-collapse: collapse;
      border-spacing: 0;
      border-radius: 10px;
      width: 100%;
      border: 1px solid #ddd;
    th,
    td {
      text-align: left;
      padding: 20px;
    tr:nth-child(even) {
      background-color: #f2f2f2;
```

```
tr:nth-child(odd) {
      background-color: #fff;
    .container {
      width: 100%;
      padding-right: 15px;
      padding-left: 15px;
      margin-right: auto;
      margin-left: auto;
    .input-group {
      width: 100%;
      margin-bottom: 1rem;
    /* guest user style */
    .jumbotron {
      background-color: #343a40;
      color: #ffffff;
      padding: 30px;
      margin-bottom: 30px;
      border-top-left-radius: 10px;
      border-top-right-radius: 10px;
    .library-section {
      background-color: #f2f2f2;
      padding: 20px;
      border-radius: 0;
    .contact-section {
      background-color: #fff;
      padding: 20px;
      border-bottom-left-radius: 10px;
      border-bottom-right-radius: 10px;
    #form-container {
      background: #ffffff98;
      margin-bottom: 50px;
      width: 550px;
  </style>
</head>
<body>
```

<nav class="navbar navbar-expand-lg navbar-dark bg-primary sticky-top">

E-Library

{% if user.is_authenticated %}

<div class="container">

```
{% block search %}
```

```
{% endblock %}
     </div>
     <a class="navbar-brand fw-bold" href="{% url 'view_profile' %}">Welcome
{{request.user.first_name}}</a>
     <a class="navbar-brand fw-bold" href="{% url 'view_profile' %}"><img</pre>
src="../../media/profile images/profile-image.png"
        alt="profile" width="50" height="50" class="img-fluid" id="profile-img"></a>
     <button class="navbar-toggler" type="button" data-bs-toggle="collapse" data-bs-</pre>
target="#navbarNav"
       aria-controls="navbarNav" aria-expanded="false" aria-label="Toggle navigation">
       <span class="navbar-toggler-icon"></span>
     </button>
   </div>
 </nav>
 {% else %}
 <nav class="bg-primary sticky-top">
   <a class="nav-link fw-bold text-light" href="/">Home</a>
     <a class="nav-link fw-bold text-light" href="{% url 'login' %}">Login</a>
     <a class="nav-link fw-bold text-light" href="{% url 'register' %}">Register</a>
     </nav>
 {% endif %}
 {% block content %}
```

```
{% endblock %}
</body>
```

```
</html>
```

Index Page

</div>

```
{% extends 'base.html' %}
{% load static %}
{% block content %}
<style>
 /* Add your custom CSS here */
 body {
   background: #f8f9fa;
  .jumbotron {
   background-size: cover;
   color: #fff;
   text-align: center;
   padding: 100px 0;
   margin-bottom: 0;
   border-radius: 0;
  .jumbotron h1 {
   font-size: 3rem;
  .jumbotron p {
    font-size: 1.5rem;
  .box-container {
   background-color: #fff;
   border-radius: 5px;
   padding: 20px;
    box-shadow: 0px 0px 10px rgba(0, 0, 0, 0.1);
  #read_online {
   width: 70%;
  #download {
   width: 20%;
   margin-left: 10%;
</style>
<div class="jumbotron">
 <div class="container">
   <h1 class="display-4">Welcome to the Online E-Library</h1>
    Explore a vast collection of books, articles, and more.
   <div class="box-container">
     <div class="banner my-2">
        <img src="media\library-banner_2.jpg" class="img-fluid w-100" alt="Banner">
```

```
</div>
  </div>
</div>
<!-- Featured Books Section -->
section class="container">
  <h2 class="text-center m-4">Featured Books</h2>
 <div class="row">
   {% for book in books %}
   <div class="col-lg-3 col-md-4 col-sm-6 mb-4">
      <div class="card">
        <img src="{{ book.image.url }}" alt="{{ book.book_name }} Image" class="img-fluid</pre>
card-img-top">
        <div class="card-body">
          <h5 class="card-title">{{book.book_name}}</h5>
          Author: {{book.author_name}}
          <div class="container">
            {% if user.is_authenticated %}
            <div class="row">
              <a href="{% url 'read_book' book.id %}" class="btn btn-primary"</pre>
id="read online">Read Online</a>
              <a href="{% url 'read_book' book.id %}" class="btn btn-success"</pre>
id="download" download><i
                  class="fa fa-download" aria-hidden="true"></i></a>
            </div>
            {% else %}
            <div>
              <a href="{% url 'issue' %}" class="btn btn-primary w-100">GET BOOK</a>
            </div>
            {% endif %}
         </div>
        </div>
      </div>
    </div>
    {% endfor %}
  <h2 class="text-center m-4">Categories</h2>
  <div class="row">
   {% for category in categories %}
   <div class="col-md-2 col-sm-12 mb-3">
      <div class="card">
        <div class="card-body">
          <h5 class="card-title text-center"><a href="{% url 'issue' %}" class="text-</pre>
decoration-none">{{category.category_name}}</a></h5>
        </div>
      </div>
    </div>
    {% endfor %}
```

```
<section class="container-fluid bg-light my-5 py-3">
    <div class="container-fluid">
```

</div>

```
<div class="banner my-2">
       <img src="media\library-banner.jpg" class="img-fluid w-100" alt="Banner">
     </div>
    </div>
  </section>
  <h2 class="text-center mb-4">More Content</h2>
  <div class="row">
   <div class="col-md-4 mb-4">
     <div class="card">
       <div class="card-body">
         <h5 class="card-title">Download Books</h5>
         Access downloadable books. Download Books from the return
books page.
         <a href="{% url 'issue' %}" class="btn btn-primary">Get Books</a>
       </div>
     </div>
   </div>
   <!-- Video Tutorials Section -->
   <div class="col-md-4 mb-4">
```

```
</div></section>
```

```
</body>
```

</html>

{% endblock %}

Issue book

```
{% extends 'base.html' %}
{% block content %}
{% for message in messages %}

<div class="alert alert-{{message.tags}} rounded-0" role="alert">
     {{message}}

</div>
{% endfor %}

<h1 class="display-5 text-center m-4 fw-bold">Available Books</h1>
```

```
<div class="input-group container">
     <input id="search" type="search" class="form-control rounded" placeholder="Search For
Book" aria-label="Search"
     aria-describedby="search-addon" />
</div>
```

```
<div class="container mt-3">
 <thead class="thead-dark">
    Book Image
     Book Name
     Author Name
     Subject
     <div class="text-center">Get Book</div>
     </thead>
  {% for book in books %}
    <img src="{{ book.image.url }}" alt="{{ book.book_name }} image" width="100px"
class="img-fluid"></rap>
     {{book.book_name}}
     {{book.author name}}
     {{book.subject}}
       <div class="text-center">
        <form action="{% url 'issue' %}" method="post">
         {% csrf_token %}
         <input type="hidden" name="book_id" value="{{book.id}}" />
         <button type="submit" class="btn btn-outline-success btn-sm">
           <b>Get</b>
         </button>
        </form>
```

```
</div>
       {% endfor %}
   (/div>
(script>
 $(document).ready(function () {
   $("#search").on("keyup", function () {
     var value = $(this).val().toLowerCase();
     $("#table data tr").filter(function () {
       $(this).toggle($(this).text().toLowerCase().indexOf(value) > -1);
     });
   });
 });
</script>
{% endblock %}
```

Return book

```
{% extends 'base.html' %}
{% block content %}

<style>
body {
   background: linear-gradient(#6affa8, #d5f57f);
   background-size: cover;
   background-attachment: fixed;
   background-repeat: no-repeat;
}

</style>
{% for message in messages %}

<div class="alert alert-{{message.tags}} rounded-0" role="alert">
   {{message}}

</div>
{% endfor %}

<hr/>
<hr/>
<hr/>
<hr/>
<lass="display-5 text-center m-4 fw-bold">Books you have issued</h1></hr>
```

```
<div class="input-group container">
     <input id="search" type="search" class="form-control rounded" placeholder="Search Book"
aria-label="Search"
     aria-describedby="search-addon" />
</div>
```

```
Author Name
       Read Online
       <div class="text-center">Download</div>
       <div class="text-center">Return Book</div>
     </thead>
   {% for book in books %}
     <img src="{{book.image.url}}" alt="{{book.book_name}} image" width="100px"
class="img-fluid">
       {{book.book name}}
       {{book.author name}}
       <a href="{% url 'read_book' book.id %}" class="btn btn-primary"
id="read online">Read</a>
        <div class="text-center">
          <a href="{% url 'read_book' book.id %}" class="btn btn-success" download><i</pre>
class="fa fa-download"
              aria-hidden="true"></i></a>
        </div>
      <div class="text-center">
          <form action="{% url 'return_book' %}" method="post">
            {% csrf_token %}
            <input type="hidden" name="book_id" value="{{book.id}}" />
            <button type="submit" class="btn btn-outline-success btn-sm">Return</button>
          </form>
        </div>
      {% endfor %}
   </div>
<script>
 // search for books
 $(document).ready(function () {
   $("#search").on("keyup", function () {
     var value = $(this).val().toLowerCase();
     $("#table_data tr").filter(function () {
      $(this).toggle($(this).text().toLowerCase().indexOf(value) > -1);
     });
   });
 });
</script>
{% endblock %}
```

```
{% extends 'base.html' %}
{% block content %}
<stvle>
 body {
   background: linear-gradient(#79d4f8, #5bf3f8);
  background-repeat: no-repeat;
   background-attachment: fixed;
</style>
<h1 class="display-5 text-center m-4 fw-bold">Your History</h1>
<div class="container">
 <thead class="thead-dark">
    Book Name
     Author Name
      Issue Date
      Return Date
    </thead>
   {% for book in books %}
    {{book.book_id.book_name}}
     {{book.book_id.author_name}}
     {{book.issue_date}}
      {{book.return_date}}
    {% endfor %}
   (/div>
div class="mx-auto w-25">
 <nav aria-label="...">
   {% if books.has_previous %}
    <a class="page-link" href="?page={{books.previous_page_number}}" tabindex="-</pre>
1">«</a>
    {% endif %} {% for i in "x"|ljust:books.paginator.num_pages %}
    <!-- Show the link if there are more than 1 page -->
     {% if books.paginator.num pages > 1 %}
     <a class="page-link" href="?page={{forloop.counter}}">{{forloop.counter}}</a></a>
      {% endif %}
    {% endfor %} {% if books.has_next %}
    <a class="page-link" href="?page={{books.next_page_number}}">&raquo;</a>
```

```
{% endblock %}
```

Guest User

```
{% extends 'base.html' %}
{% block content %}

<h2 class="text-center m-3">Welcome, Guest User!</h2>
<style>
  body {
   background: #ddd;
  }
</style>
```

```
<div class="container mb-3 p-3">
     <div class="jumbotron text-center">
          <h1>Welcome to the Online E-Library</h1>
          Explore a world of knowledge at your fingertips
     </div>
```

```
<div class="library-section">
    <h2>Library Timings</h2>
    Our library is open for your convenience:

        <strong>Monday - Friday:</strong> 9:00 AM - 6:00 PM
        <strong>Saturday:</strong> 10:00 AM - 4:00 PM
        <strong>Sunday:</strong> Closed

    <div></div>
```

```
<div class="library-section">
    <h2>Available Books</h2>
    <div class="row">
        {% for book in books %}
        <div class="col-md-3 justify-center book-card mb-4">
```

```
<div class="card">
          <img src="{{ book.image.url }}" alt="{{ book.book_name }} Image" class="img-</pre>
fluid card-img-top">
         <div class="card-body">
           <h5 class="card-title">{{book.book_name}}</h5>
           {{book.author_name}}
           <a href="{% url 'return_book' %}" class="btn btn-primary">Read</a>
         </div>
       </div>
     </div>
     {% endfor %}
    </div>
    <div class="text-center">
      <a href="{% url 'login' %}" class="text-decoration-none fw-bold btn btn-</pre>
primary">Login to Read Books Online</a>
    </div>
  </div>
```

{% endblock %}

Login

```
{% extends 'base.html' %}
{% block content %}
<h1 class="mt-5 text-center">Login To Library</h1>
<div class="container border border-dark mt-4 p-5" id="form-container">
    <form action="{% url 'login' %}" method="POST">
        {% csrf token %}
        <div class="form-group">
            <label><b>Username</b></label>
            <input type="text" name="username" class="form-control"</pre>
placeholder="Username">
        </div>
        <br>
        <div class="form-group">
            <label><b>Password</b></label>
            <input type="password" name="password" class="form-control"</pre>
placeholder="Password">
        </div>
       <br>
       <button type="submit" class="btn btn-primary w-100">Login/button>
```

```
</div>
```

Register

```
{% extends 'base.html' %}
{% block content %}
<h1 class="m-4 text-center">Register To Library</h1>
```

```
<div class="container border border-white mt-4 p-4" id="form-container">
 {% for message in messages %}
 <div class="alert alert-danger" role="alert">
   {{message}}
 </div>
 {% endfor %}
 <form action="{% url 'register' %}" method="POST">
   {% csrf token %}
   <div class="form-group">
     <label><b>First Name</b></label>
     <input type="text" name="first_name" class="form-control" placeholder="First Name">
   </div>
   <br>
   <div class="form-group">
     <label><b>Last Name</b></label>
     <input type="text" name="last_name" class="form-control" placeholder="Last Name">
   </div>
   <br>
   <div class="form-group">
     <label><b>Username</b></label>
     <input type="text" name="username" class="form-control" placeholder="Username">
   </div>
   <br>
   <div class="form-group">
     <label><b>Email</b></label>
     <input type="email" name="email" class="form-control" placeholder="Email">
   </div>
```

Contact us

```
{% extends 'base.html' %}
{% block content %}
<h2 class="mt-3 text-center">Contact Us</h2>
<div class="container border border-dark p-3 mt-4 rounded-md" id="form-container">
 <form action="{% url 'contact us' %}" method="POST">
   {% csrf_token %}
   <div class="form-group">
     <label><b>Name</b></label>
      <input type="text" name="name" class="form-control" placeholder="Name">
   </div>
   <br>
    <div class="form-group">
     <label><b>Email</b></label>
      <input type="text" name="from_email" class="form-control" placeholder="Email">
   </div>
   <br>
    <div class="form-group">
      <label><b>Make Inquiry</b></label>
      <textarea name="message" class="form-control" cols="30" rows="5"</pre>
placeholder="Message"></textarea>
    </div>
    <button type="submit" class="btn btn-primary mt-3 w-100">Submit</button>
 </form>
```

```
{% if messages %}
<div class="messages">
   {% for message in messages %}
```

Profile/View Profile

```
{% extends 'base.html' %}
{% load static %}
{% block content %}
<div class="container">
  <h2 class="text-center m-4 fw-bold">Your Profile</h2>
  <!-- User Profile Content -->
  <div class="container my-5">
    <div class="row">
      <!-- User Profile Header -->
      <div class=" card col-lg-8 bg-light mb-4">
        <header class="py-5">
          <div>
            <div class="card-body">
              <div class="container text-center">
                <a class="navbar-brand fw-bold" href="{% url 'view_profile' %}"><img</pre>
                    src="../../media/profile_images/profile-image.png" alt="profile"
width="75" height="75"
                    class="img-fluid" id="profile-img"></a>
                <h1>{{user.first_name}} {{user.last_name}}</h1>
```

```
<div class="col-lg-4">
      <div class="card">
        <div class="card-body">
         <h3 class="card-title">User Information</h3>
          <strong>Username: </strong>
{{user.username}}
           <strong>Email: </strong> {{user.email}}
           <strong>Join Date: </strong>
{{user.date_joined}}
         <div class="container">
           <div class="row">
             <div class="col-md-6 w-50">
              <a href="{% url 'edit_profile' %}" class="btn btn-primary">Edit
Profile</a>
             </div>
             <div class="col-md-6 w-50">
              {% if user.is_staff %}
              <a href="/library-admin">Login as admin</a>
              {% else %}
              <a href="{% url 'logout' %}">Logout</a>
              {% endif %}
             </div>
           </div>
         </div>
        </div>
      </div>
    </div>
   </div>
 </div>
```

```
<!-- Borrowed Books -->
<div class="container">
 <h3 class="mb-3 fw-bold">Borrowed Books</h3>
 <thead>
    Title
     Author
     Issue Date
     Return Date
    </thead>
  {% for book in books %}
    {{book.book_id.book_name}}
     {{book.book_id.author_name}}
     {{book.issue_date}}
     {{book.return_date}}
    {% endfor %}
```

Edit profile

{{ message }}

{% endfor %}

</div>
{% endif %}

```
{% extends 'base.html' %}
{% block content %}
<h2 class="text-center display-6 m-3">Edit Your Profile</h2>
<div class="container border border-dark p-3 mt-4 rounded-md" id="form-container">
 <form action="{% url 'edit_profile' %}" method="POST">
   {% csrf_token %}
   <div class="form-group">
      <label><b>First Name</b></label>
      <input type="text" name="first_name" class="form-control" placeholder="First Name">
   </div>
    <div class="form-group">
      <label><b>Last Name</b></label>
      <input type="text" name="last_name" class="form-control" placeholder="Last Name">
   </div>
   <div class="form-group">
      <label><b>Username</b></label>
      <input type="text" name="username" class="form-control" placeholder="Username">
   </div>
   <div class="form-group">
      <label><b>Email</b></label>
      <input type="text" name="email" class="form-control" placeholder="Email Address">
   </div>
    <button type="submit" class="btn btn-primary mt-3 w-100">Submit</button>
  </form>
  {% if messages %}
  <div class="messages mt-3">
   {% for message in messages %}
   <div {% if message.tags %} class="alert alert-{{ message.tags }}" {% endif %}>
```

```
/div>
{% endblock %}
```

Change password

```
{% extends 'base.html' %}
{% block content %}
<h2 class="text-center display-6 m-3">Change Password</h2>
div class="container border border-dark p-3 mt-4 rounded-md" id="form-container">
    <form action="{% url 'change_password' %}" method="POST">
        {% csrf token %}
        <!-- Old Password -->
        <div class="form-group">
            <label for="id_old_password">Old Password</label>
            <input type="password" class="form-control" id="id_old_password"</pre>
name="old_password">
        </div>
        <!-- New Password -->
        <div class="form-group">
            <label for="id_new_password1">New Password</label>
            <input type="password" class="form-control" id="id_new_password1"</pre>
name="new_password">
       </div>
        <!-- Confirm New Password -->
        <div class="form-group">
            <label for="id_new_password2">Confirm New Password</label>
            <input type="password" class="form-control" id="id_new_password2"</pre>
name="confirm new password">
        <button type="submit" class="btn btn-primary mt-3 w-100">Submit</button>
    </form>
    {% if messages %}
    <div class="messages mt-3">
        {% for message in messages %}
        <div {% if message.tags %} class="alert alert-danger" {% else %} class="alert</pre>
alert-{{    message.tags    }}" {%    endif %}>
            {{ message }}
        </div>
        {% endfor %}
    </div>
    {% endif %}
</div>
{% endblock %}
```

Views.py

```
from django.http import FileResponse, HttpResponseRedirect
from django.shortcuts import get_object_or_404, redirect, render
from django.urls import reverse
from .models import *
from .forms import *
from django.contrib import messages
from django.contrib.auth.models import auth, User
from django.db.models import Q
from django.contrib.auth.decorators import login_required
from datetime import date
from django.core.paginator import Paginator
from django.contrib.auth import update_session_auth_hash
from django.core.mail import send_mail
             ----- E-Library Management System Views -
# Home Page
def index(request):
   books = Book.objects.all()[:4]
   categories = Categories.objects.all()
   return render(request, "index.html", {'books': books, 'categories': categories})
 : Login Page
def login(request):
    # If request is post then get username and password from request
    if request.method == "POST":
        username = request.POST["username"]
       password = request.POST["password"]
        # Authenticate user
        user = auth.authenticate(username=username, password=password)
        if user is not None:
           auth.login(request, user)
            # Redirect to home page
            return redirect("/")
        else:
            # and redirect to login page
            messages.info(request, "Invalid Credential")
```

```
return redirect("login")
    else:
        # If request is not post then render login page
        return render(request, "login.html")
 Register Page
def register(request):
    # If request is post then get user details from request
    if request.method == "POST":
        first name = request.POST["first name"]
        last_name = request.POST["last_name"]
        username = request.POST["username"]
        email = request.POST["email"]
        password = request.POST["password"]
        confirm_password = request.POST["confirm_password"]
        # Check if password and confirm password matches
        if password == confirm password:
            # Check if username or email already exists
            if User.objects.filter(username=username).exists():
                messages.info(request, "Username already exist")
                return redirect("register")
            elif User.objects.filter(email=email).exists():
                messages.info(request, "Email already registered")
                return redirect("register")
            # If username and email does not exists then create user
            else:
                # Create user
                user = User.objects.create_user(
                    first_name=first_name,
                    last_name=last_name,
                    username=username,
                    email=email,
                    password=password,
                # Save user
                user.save()
                # Redirect to login page
                return redirect("login")
        else:
            # If password and confirm password does not matches then show error message
            messages.info(request, "Password does not match")
            return redirect("register")
    else:
```

```
# If request is not post then render register page
        return render(request, "register.html")
def logout(request):
    # Logout user and redirect to home page
    auth.logout(request)
   return redirect("/login")
 Issue view to issue book to user
@login_required(login_url="login")
def issue(request):
    # If request is post then get book id from request
    if request.method == "POST":
        book_id = request.POST["book_id"]
        current book = Book.objects.get(id=book id)
        book = Book.objects.filter(id=book_id)
        issue_book = IssuedItem.objects.create(
            user_id=request.user, book_id=current_book
        issue_book.save()
        book.update(quantity=book[0].quantity - 1)
        # Show success message and redirect to issue page
        messages.success(request, "Book issued successfully.")
    # Get all books which are not issued to user
   my items = IssuedItem.objects.filter(
        user_id=request.user, return_date__isnull=True
    ).values list("book id")
   books = Book.objects.exclude(id__in=my_items).filter(quantity__gt=0)
    # Return issue page with books that are not issued to user
    return render(request, "issue_book.html", {"books": books})
# Return view to return book to library
@login_required(login_url="login")
def return book(request):
    # If request is post then get book id from request
   if request.method == "POST":
        # Get book id from request
        book_id = request.POST["book_id"]
        # Get book object
        current_book = Book.objects.get(id=book_id)
        # Update book quantity
        book = Book.objects.filter(id=book id)
        book.update(quantity=book[0].quantity + 1)
```

```
# Update return date of book and show success message
        issue_book = IssuedItem.objects.filter(
            user_id=request.user, book_id=current_book, return_date__isnull=True
        issue_book.update(return_date=date.today())
        messages.success(request, "Book returned successfully.")
    # Get all books which are issued to user
    my_items = IssuedItem.objects.filter(
        user_id=request.user, return_date__isnull=True
   ).values list("book id")
   # Get all books which are not issued to user
   books = Book.objects.exclude(~O(id in=my items))
    # Return return page with books that are issued to user
   return render(request, "return_book.html", {"books": books})
# History view to show history of issued books to user
@login_required(login_url="login")
def history(request):
    # Get all issued books to user
   my items = IssuedItem.objects.filter(user id=request.user).order by("-issue date")
    # Paginate data
   paginator = Paginator(my_items, 10)
    # Get page number from request
    page_number = request.GET.get("page")
   show_data_final = paginator.get_page(page_number)
    # Return history page with issued books to user
   return render(request, "history.html", {"books": show_data_final})
def guest_user(request):
    # Get all books which are not issued to user
    books = Book.objects.all()[:4]
    categories = Categories.objects.all().values()
    return render(request, 'guest_user.html', {'books': books,'categories': categories,})
 contact form
def contact us(request):
    if request.method == 'POST':
        name = request.POST["name"]
        from email = request.POST["from email"]
        message = request.POST["message"]
        try:
           send mail(
```

```
'Contact Form Submission',
                f'''Name: {name}
                    Email: {from email}
                    Message: {message}''',
                from_email, #your email
                ['abdulfataiyakub02@gmail.com'], #Recipient email
                fail silently=False,
            ),
            messages.success(request, 'Your message was sent successfully. We will get
back to you soon.')
        except Exception as e:
            messages.error(request, f'Something went wrong. Please try again later. Error:
{str(e)}')
        return redirect('contact_us')
       return render(request, 'contact us.html')
@login_required(login_url="login")
def view_profile(request):
   datas = User.objects.all().values()
   # Get all issued books to user
   my_items = IssuedItem.objects.filter(user_id=request.user).order_by("-issue_date")[:5]
    context = {
        'datas' : datas,
        'books' : my_items
   return render(request, 'profile/view_profile.html', context)
```

```
@login_required(login_url="login")
def edit_profile(request):
    if request.method == 'POST':
        user = request.user
        user.first_name = request.POST.get('first_name')
        user.last_name = request.POST.get('last_name')
        user.username = request.POST.get('username')
        user.email = request.POST.get('username')
        user.email = request.POST.get('email')
        user.save()
```

```
messages.success(request, 'Your profile has been updated successfully.')
return redirect('edit_profile')
```

else:

```
return render(request, 'profile/edit_profile.html')
@login_required(login_url="login")
def change_password(request):
    if request.method == 'POST':
        old_password = request.POST['old_password']
        new_password = request.POST['new_password']
        confirm_new_password = request.POST["confirm_new_password"]
```

```
# Verify old password
        if not request.user.check_password(old_password):
            messages.error(request, 'Old password is incorrect.')
        elif new_password != confirm_new_password:
            messages.error(request, 'New passwords do not match.')
        else:
            # Change the password
            request.user.set_password(new_password)
           request.user.save()
            # Update the user's session to prevent them from being logged out
           update_session_auth_hash(request, request.user)
            messages.success(request, 'Your password has been changed successfully.')
            return redirect('change_password')
    return render(request, "profile/change password.html")
@login_required(login_url="login")
def read_book(request, book_id):
   book = get object or 404(Book, pk=book id)
    # Construct the full path to the book content file
   content_file_path = book.content_file.path
   # Serve the file as a response
    response = FileResponse(open(content_file_path, 'rb'))
   return response
```

Urls.py

```
# Importing required libraries
from django.urls import path
from django.conf import settings
from django.conf.urls.static import static
from . import views
# Url patterns for Books app module of Library Management System
urlpatterns = [
    path("", views.index, name="index"),
   path("issue/", views.issue, name="issue"),
    path("return book/", views.return book, name="return book"),
   path("history/", views.history, name="history"),
   path("register/", views.register, name="register"),
   path("login/", views.login, name="login"),
   path("logout/", views.logout, name="logout"),
   path('guest_user/', views.guest_user, name='guest_user'),
   path('profile/', views.view profile, name='view profile'),
```

Models.py

```
from django.db import models
from django.contrib.auth.models import User
from datetime import date
from django.utils import timezone
     ----- E-Library Management System Models -----
 Book model to store book details
class Book(models.Model):
    image = models.ImageField(upload_to='book_images/',
default='book_images/default_big.png')
    book name = models.CharField(max length=150)
    author name = models.CharField(max length=200)
    quantity = models.IntegerField(default=1)
    content_file = models.FileField(upload_to='book_content/', default='book_content/link-
expired.txt')
    subject = models.CharField(max_length=2000)
    book_add_time = models.TimeField(default=timezone.now())
   book add date = models.DateField(default=date.today())
   class Meta:
       unique_together = ("book_name", "author_name")
    def __str__(user):
       return user.book name
```

```
# IssuedItem model to store issued book details
class IssuedItem(models.Model):
    book_id = models.ForeignKey(Book, on_delete=models.CASCADE)
    user_id = models.ForeignKey(User, on_delete=models.CASCADE)
    issue_date = models.DateField(default=date.today(), blank=False)
    return_date = models.DateField(blank=True, null=True)
```

```
# property to get book name
@property
def book_name(user):
    return user.book_id.book_name
```

property to get author name

```
@property
    def username(user):
        return user.user id.author name
   def __str__(user):
        return (
            user.book_id.book_name
           + " read by "
           + user.user_id.first_name
           + str(user.issue_date)
class User(models.Model):
    first_name = models.CharField(max_length=100)
   last_name = models.CharField(max_length=100)
    def __str__(user):
       return f"{user.first_name} - {user.last_name}"
class Categories(models.Model):
   category_name = models.CharField(max_length=100)
    # property to get book name
   @property
    def book_name(user):
       return user.category_name
    def __str__(user):
       return f"{user.category_name}"
```

Admin.py

```
from django.contrib import admin
from .models import Book, IssuedItem, Categories

# Register your models here

admin.site.register(Book)
admin.site.register(IssuedItem)
admin.site.register(Categories)
```

Urls.py

```
URL configuration for Elibrary project.
The `urlpatterns` list routes URLs to views. For more information please see:
   https://docs.djangoproject.com/en/4.2/topics/http/urls/
Examples:
Function views

    Add an import: from my_app import views

   2. Add a URL to urlpatterns: path('', views.home, name='home')
Class-based views
    1. Add an import: from other_app.views import Home
    Add a URL to urlpatterns: path('', Home.as_view(), name='home')
Including another URLconf
    1. Import the include() function: from django.urls import include, path
    2. Add a URL to urlpatterns: path('blog/', include('blog.urls'))
from django.contrib import admin
from django.urls import path, include
urlpatterns = [
    path('', include('Library.urls')),
    path('library-admin/', admin.site.urls),
```

Settings.py

```
Django settings for Elibrary project.

Generated by 'django-admin startproject' using Django 4.2.

For more information on this file, see https://docs.djangoproject.com/en/4.2/topics/settings/

For the full list of settings and their values, see https://docs.djangoproject.com/en/4.2/ref/settings/
"""

import os from pathlib import Path
```

```
Build paths inside the project like this: BASE_DIR / 'subdir'.
BASE_DIR = Path(__file__).resolve().parent.parent
 Quick-start development settings - unsuitable for production
# See https://docs.djangoproject.com/en/4.2/howto/deployment/checklist/
# SECURITY WARNING: keep the secret key used in production secret!
SECRET KEY = "django-insecure-f4n3bd3@5vgaacqz(+a&)2hkm-@gr@j*r@wu)10q+a+)7e0c*z"
# SECURITY WARNING: don't run with debug turned on in production!
DEBUG = True
ALLOWED_HOSTS = []
# Application definition
INSTALLED APPS = [
    "django.contrib.admin",
    "django.contrib.auth",
    "django.contrib.contenttypes",
    "django.contrib.sessions",
    "django.contrib.messages",
    "django.contrib.staticfiles",
    "Library"
LOGIN_REDIRECT_URL = '/'
LOGOUT_REDIRECT_URL = '/'
MEDIA\_URL = '/media/'
MEDIA_ROOT = os.path.join(BASE_DIR, 'media')
MIDDLEWARE = [
    "django.middleware.security.SecurityMiddleware",
    "django.contrib.sessions.middleware.SessionMiddleware",
    "django.middleware.common.CommonMiddleware",
    "django.middleware.csrf.CsrfViewMiddleware",
    "django.contrib.auth.middleware.AuthenticationMiddleware",
    "django.contrib.messages.middleware.MessageMiddleware",
    "django.middleware.clickjacking.XFrameOptionsMiddleware",
ROOT_URLCONF = "Elibrary.urls"
TEMPLATES = [
    {
        "BACKEND": "django.template.backends.django.DjangoTemplates",
        "DIRS": ["Library/templates"],
        "APP DIRS": True,
        "OPTIONS": {
            "context_processors": [
                "django.template.context_processors.debug",
                "django.template.context processors.request".
```

```
"django.contrib.auth.context processors.auth",
                "django.contrib.messages.context_processors.messages",
            ],
        },
    },
WSGI_APPLICATION = "Elibrary.wsgi.application"
 Database
# https://docs.djangoproject.com/en/4.2/ref/settings/#databases
DATABASES = {
    "default": {
        "ENGINE": "django.db.backends.sqlite3",
        "NAME": BASE_DIR / "db.sqlite3",
 Password validation
# https://docs.djangoproject.com/en/4.2/ref/settings/#auth-password-validators
AUTH_PASSWORD_VALIDATORS = [
        "NAME": "django.contrib.auth.password_validation.UserAttributeSimilarityValidator"
    },
    {
        "NAME": "django.contrib.auth.password_validation.MinimumLengthValidator",
    },
        "NAME": "django.contrib.auth.password_validation.CommonPasswordValidator",
    },
    {
        "NAME": "django.contrib.auth.password_validation.NumericPasswordValidator",
    },
 Internationalization
 https://docs.djangoproject.com/en/4.2/topics/i18n/
LANGUAGE CODE = "en-us"
TIME ZONE = "UTC"
USE I18N = True
USE TZ = True
 Static files (CSS, JavaScript, Images)
# https://docs.djangoproject.com/en/4.2/howto/static-files/
STATIC URL = "static/"
```

- # Default primary key field type
- # https://docs.djangoproject.com/en/4.2/ref/settings/#default-auto-field

DEFAULT_AUTO_FIELD = "django.db.models.BigAutoField"