WP LAB 6 – Developing Web Application using Django - Part II

Name: Pranamya G Kulal
Class: CSE A
Reg no: 220905018
Roll no: 80

Q1) Design a simple web application to provide information about a book. The home page of the application should display the cover page of the book along with three hyperlinks: Metadata, Reviews, Publisher info. Give provision to revert to home page from any other page.

i)book_info/urls.py

```
from django.contrib import admin
from django.urls import path, include

urlpatterns = [
   path('admin/', admin.site.urls),
   path('', include('book.urls')),
]
```

ii)book/urls.py

```
from django.urls import path
from . import views

urlpatterns = [
   path('', views.home, name='home'),
   path('metadata/', views.metadata, name='metadata'),
   path('reviews/', views.reviews, name='reviews'),
   path('publisher/', views.publisher_info, name='publisher_info'),
]
```

iii)book/views.py

```
from django.shortcuts import render

def home(request):
   return render(request, 'book/home.html')

def metadata(request):
   return render(request, 'book/metadata.html')

def reviews(request):
   return render(request, 'book/reviews.html')

def publisher_info(request):
   return render(request, 'book/publisher_info.html')
```

iv)book/templates/book/home.html

```
{% load static %}

<!DOCTYPE html>
<html lang="en">
<head>
  <meta charset="UTF-8">
  <meta name="viewport" content="width=device-width, initial-scale=1.0">
  <title>Book Information</title>
  <link rel="stylesheet" href="{% static 'css/styles.css' %}">
</head>
<body>
  <div class="container">
    <h1>Book Title</h1>
    <img src="{% static 'images/book.jpg' %}" alt="Book Cover">
    <div class="links">
      <p><a href="{% url 'metadata' %}">Metadata</a></p>
      <p><a href="{% url 'reviews' %}">Reviews</a></p>
      <p><a href="{% url 'publisher_info' %}">Publisher Info</a></p>
    </div>
  </div>
  <footer>
    <p>Book Information Website</p>
  </footer>
</body>
</html>
```

v)book/templates/book/metadata.html

```
{% load static %}

<!DOCTYPE html>
<html lang="en">
<head>
  <meta charset="UTF-8">
  <meta name="viewport" content="width=device-width, initial-scale=1.0">
  <title>Book Metadata</title>
  <link rel="stylesheet" href="{% static 'css/styles.css' %}">
</head>
<body>
  <div class="container">
    <h1>Book Metadata</h1>
    <ul>
      <li><strong>Title:</strong> The Hunger Games</li>
      <li><strong>Author:</strong> Suzanne Collins</li>
      <li><strong>ISBN-10:</strong> 978-0439023528</li>
      <li><strong>ISBN-13:</strong> 978-0439023528</li>
      <li><strong>Publication Year:</strong> 2008</li>
```

```
        <li><strong>Publisher:</strong> Scholastic Press</li>
        <li><strong>Genres:</strong> Dystopian, Science Fiction, Adventure, Young
Adult</li>
        <li><strong>Series:</strong> The Hunger Games Trilogy (Book 1)</li>
        <li><strong>Page Count:</strong> 374 pages</li>
        <li><strong>Language:</strong> English</li>
      </ul>
      <p><a href="{% url 'home' %}">Back to Home</a></p>
    </div>
    <footer>
      <p>Book Information Website</p>
    </footer>
</body>
</html>
```

vi)book/templates/book/publisher_info.html

```
{% load static %}
<!DOCTYPE html>
<html lang="en">
<head>
    <meta charset="UTF-8">
    <meta name="viewport" content="width=device-width, initial-scale=1.0">
    <title>Publisher Information</title>
    <link rel="stylesheet" href="{% static 'css/styles.css' %}">
</head>
<body>
    <div class="container">
        <h1>Publisher Information</h1>

        <h3>Publisher</h3>
        <p><strong>Name:</strong> Scholastic Press</p>
        <p><strong>Founded:</strong> 1920</p>
        <p><strong>Headquarters:</strong> New York City, New York, USA</p>

        <h3>About Scholastic Press</h3>
        <p>Scholastic Press is a major publisher of children's books, young adult literature,
and educational materials. They are known for publishing popular titles such as *Harry
Potter*, *The Hunger Games*, and *Clifford the Big Red Dog*. Scholastic's focus is on
books that inspire, educate, and engage young readers, with a particular focus on
fostering a love of reading.</p>

        <h3>Other Notable Publications</h3>
        <ul>
            <li>Harry Potter Series by J.K. Rowling</li>
            <li>Clifford the Big Red Dog by Norman Bridwell</li>
            <li>Percy Jackson Series by Rick Riordan</li>
```

```
        <li>The Giver by Lois Lowry</li>
      </ul>

      <p><a href="{% url 'home' %}">Back to Home</a></p>
    </div>
    <footer>
      <p>Book Information Website</p>
    </footer>
</body>
</html>
```

vii)book/templates/book/reviews.html

```
{% load static %}
<!DOCTYPE html>
<html lang="en">
<head>
    <meta charset="UTF-8">
    <meta name="viewport" content="width=device-width, initial-scale=1.0">
    <title>Book Reviews</title>
    <link rel="stylesheet" href="{% static 'css/styles.css' %}">
</head>
<body>
    <div class="container">
        <h1>Book Reviews</h1>

        <div class="review">
            <h3>Review by The New York Times</h3>
            <p><strong>Rating:</strong> ★★★★★</p>
            <p><em>"The Hunger Games is a fast-paced, thrilling adventure with a gripping storyline that keeps you on the edge of your seat. Suzanne Collins expertly weaves together survival, politics, and deep moral questions about the human condition. A must-read for fans of dystopian fiction!"</em></p>
        </div>

        <div class="review">
            <h3>Review by Kirkus Reviews</h3>
            <p><strong>Rating:</strong> ★★★★☆</p>
            <p><em>"A fascinating and brutal narrative that examines the impact of violence on society. Collins' world-building is rich, and the characters, especially Katniss, are compelling. This novel will resonate with both young adults and older readers."</em></p>
        </div>

        <div class="review">
            <h3>Review by Publishers Weekly</h3>
            <p><strong>Rating:</strong> ★★★★★</p>
```

```
        <p><em>"The Hunger Games offers a heart-pounding reading experience, combining action, suspense, and thought-provoking commentary on the nature of power and control. Katniss is an unforgettable protagonist who will stay with you long after the last page."</em></p>
      </div>

      <div class="review">
        <h3>Review by School Library Journal</h3>
        <p><strong>Rating:</strong> ★★★★☆</p>
        <p><em>"A thrilling and brutal novel that explores the complexities of survival in a dystopian world. Collins' portrayal of the Hunger Games is gripping and realistic, making for an unforgettable reading experience."</em></p>
      </div>

      <p><a href="{% url 'home' %}">Back to Home</a></p>
    </div>
    <footer>
      <p>Book Information Website</p>
    </footer>
</body>
</html>
```

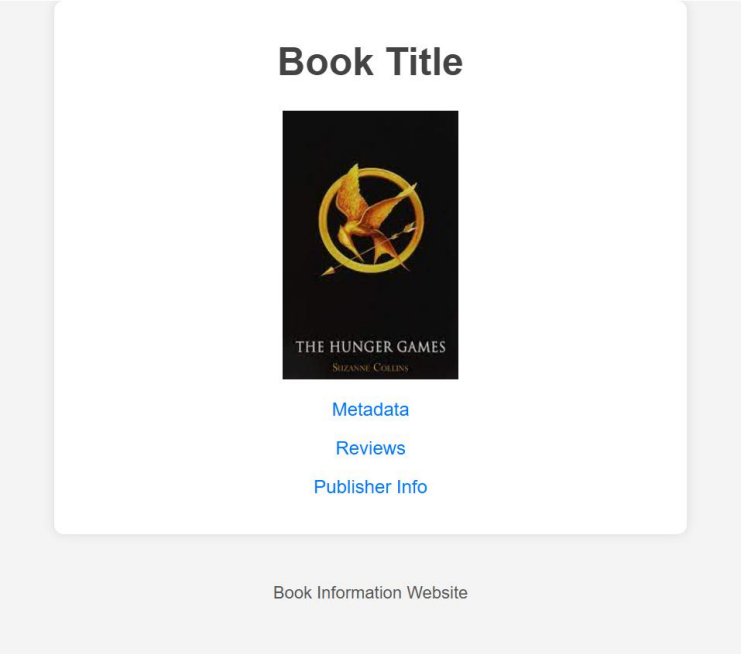
viii)static/css/styles.css

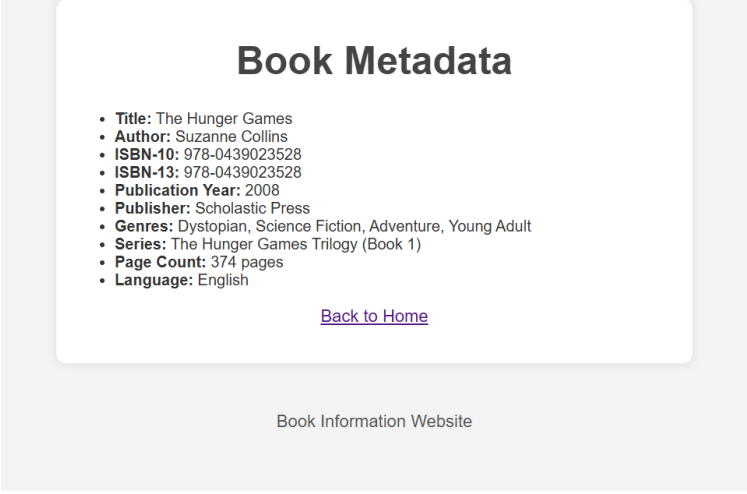
```
/* book/static/css/styles.css */
body {
  font-family: Arial, sans-serif;
  margin: 0;
  padding: 0;
  background-color: #f4f4f4;
  color: #333;
}

h1 {
  text-align: center;
  color: #444;
  font-size: 2.5rem;
  margin-top: 20px;
}

img {
  display: block;
  margin: 20px auto;
  max-width: 100%;
  height: auto;
}
```

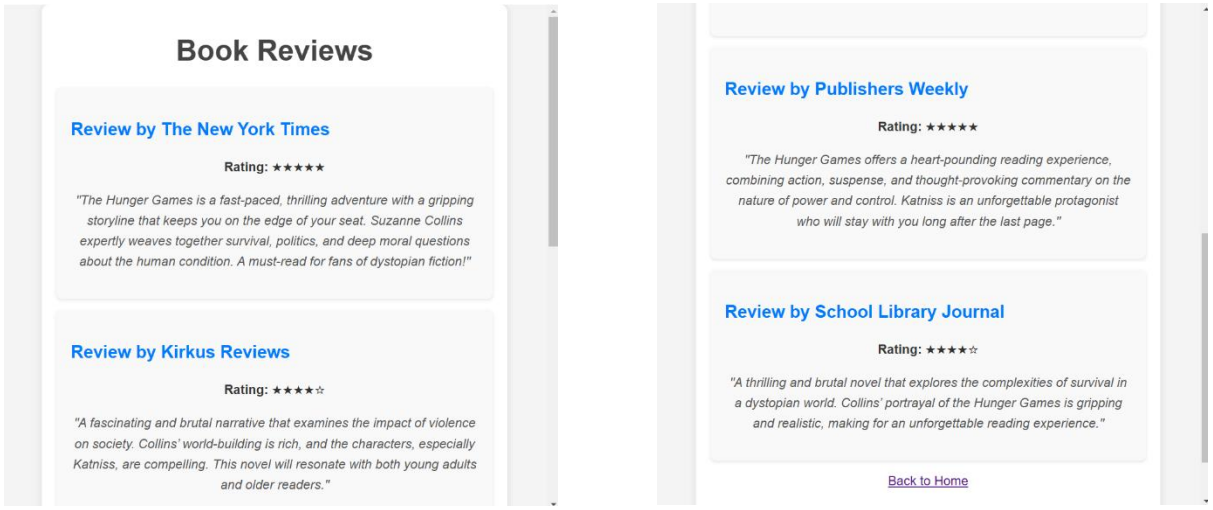
```
.container {
  width: 80%;
  margin: 0 auto;
  padding: 20px;
  background-color: white;
  border-radius: 10px;
  box-shadow: 0px 0px 10px rgba(0, 0, 0, 0.1);
}

.links {
  text-align: center;
  margin-top: 20px;
}

.links a {
  text-decoration: none;
  font-size: 1.2rem;
  margin: 0 15px;
  color: #007BFF;
}

.links a:hover {
  color: #0056b3;
}

p {
  text-align: center;
  font-size: 1.1rem;
}

footer {
  text-align: center;
  margin-top: 50px;
  font-size: 0.9rem;
  color: #555;
}
/* book/static/css/styles.css */
.review {
  background-color: #f9f9f9;
  padding: 20px;
  margin: 15px 0;
  border-radius: 8px;
  box-shadow: 0 2px 4px rgba(0, 0, 0, 0.1);
}

.review h3 {
  color: #007BFF;
```

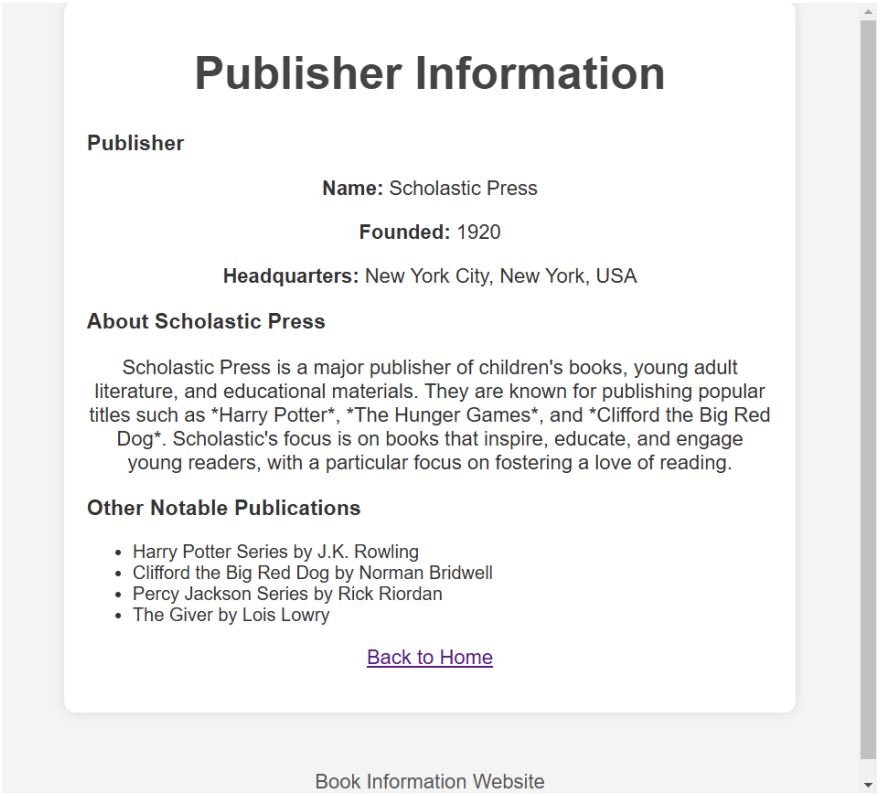
```
 font-size: 1.5rem;
}

.review p {
 font-size: 1.1rem;
 line-height: 1.6;
}

.review em {
 font-style: italic;
 color: #555;
}

.review .rating {
 font-weight: bold;
 color: #FFD700; /* Gold color for the stars */
}
```

ix)Screenshots









Q2) Design a simple web application which will ask the user to input his name and a message, display the two items concatenated in a label, and change the format of the label using radio buttons and check boxes for selection, the user can make the label text bold, underlined or italic and change its color. include buttons to display the message in the label, clear the text boxes and label and exit

i)simplewebapp/urls.py

```
from django.contrib import admin
from django.urls import path, include
```

```
urlpatterns = [
    path('admin/', admin.site.urls),
    path('', include('messageapp.urls')),
]
```

ii)messageapp/urls.py

```
from django.urls import path
from . import views

urlpatterns = [
    path('', views.home, name='home'),
]
```

iii) messageapp/views.py

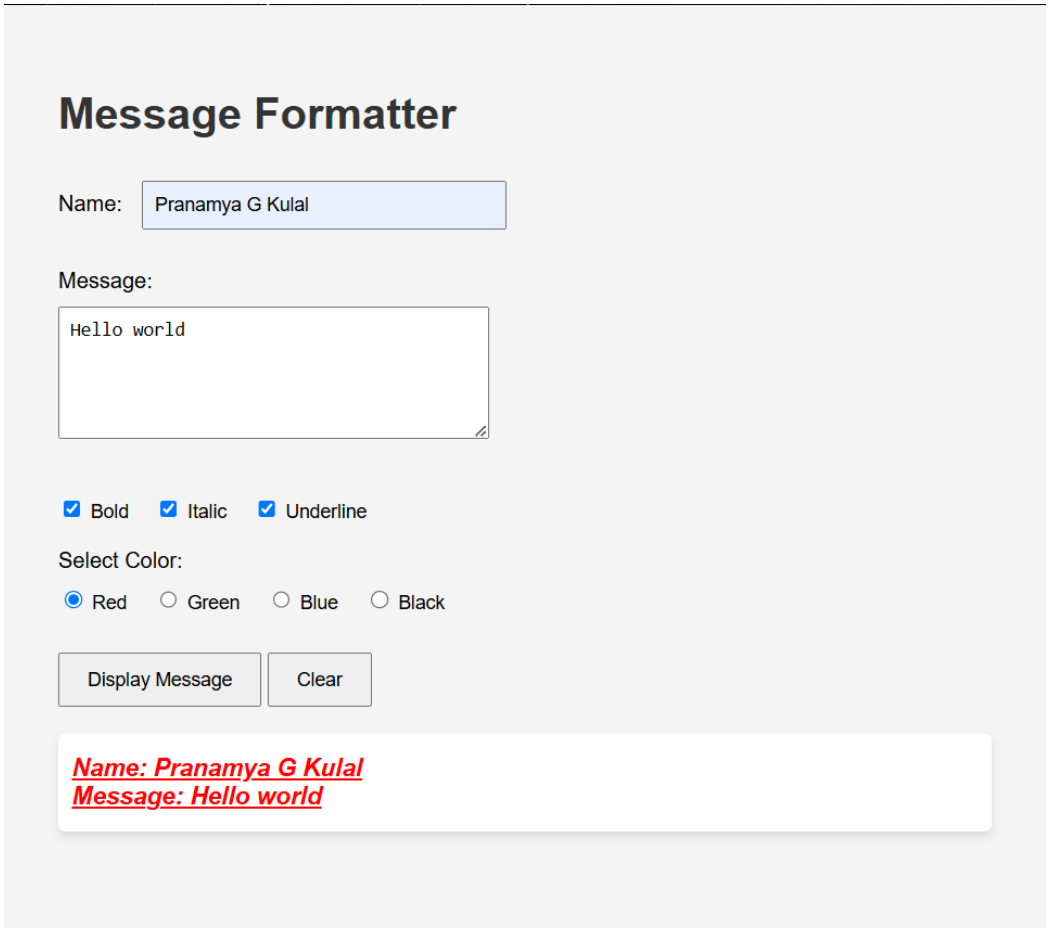
```
from django.shortcuts import render
from django.utils.safestring import mark_safe  # Ensures HTML formatting is preserved

def home(request):
    formatted_message = ""
    name = ""
    message = ""

    if request.method == 'POST':
        name = request.POST.get('name')
        message = request.POST.get('message')
        format_options = request.POST.getlist('format')
        color = request.POST.get('color', 'black')  # Default to black

        # Format the message display
        formatted_message = f"Name: {name}<br>Message: {message}"

        # Apply formatting
        if 'bold' in format_options:
            formatted_message = f"<b>{formatted_message}</b>"
        if 'italic' in format_options:
            formatted_message = f"<i>{formatted_message}</i>"
        if 'underline' in format_options:
            formatted_message = f"<u>{formatted_message}</u>"

        # Apply selected text color
        formatted_message = f'<span style="color:{color};">{formatted_message}</span>'

        # Mark as safe to prevent escaping
        formatted_message = mark_safe(formatted_message)
```

```
    return render(request, 'home.html', {'formatted_message': formatted_message,
'name': name, 'message': message})
```

iv) messageapp/templates/home.html

```
<!DOCTYPE html>
<html lang="en">
<head>
    <meta charset="UTF-8">
    <meta name="viewport" content="width=device-width, initial-scale=1.0">
    <title>Message Formatter</title>
    <style>
        body {
            font-family: Arial, sans-serif;
            margin: 20px;
            padding: 20px;
            background-color: #f4f4f4;
        }

        h1 {
            color: #333;
        }

        label {
            font-size: 16px;
            margin-right: 10px;
        }

        input[type="text"], textarea {
            padding: 8px;
            margin: 10px 0;
            font-size: 14px;
            width: 250px;
        }

        textarea {
            height: 80px;
            width: 300px;
        }

        button {
            padding: 10px 20px;
            font-size: 14px;
            cursor: pointer;
            margin-top: 10px;
        }

        .output-label {
```

```
        font-size: 20px;
        margin-top: 20px;
        padding: 10px;
        background-color: #fff;
        border-radius: 5px;
        box-shadow: 0 4px 6px rgba(0, 0, 0, 0.1);
      }

      .checkbox-group, .radio-group {
        margin-top: 10px;
      }

      .checkbox-group label, .radio-group label {
        font-size: 14px;
        margin-right: 15px;
      }

      .message-output {
        margin-top: 20px;
        padding: 10px;
        background-color: #fff;
        border-radius: 5px;
        box-shadow: 0 4px 6px rgba(0, 0, 0, 0.1);
        font-size: 18px;
      }

      .message-output p {
        margin: 5px 0;
      }
    </style>
</head>
<body>
    <h1>Message Formatter</h1>
    <form method="POST">
      {% csrf_token %}
      <label for="name">Name:</label>
      <input type="text" id="name" name="name" required><br><br>

      <label for="message">Message:</label><br>
      <textarea id="message" name="message" required></textarea><br><br>

      <div class="checkbox-group">
        <label><input type="checkbox" name="format" value="bold"> Bold</label>
        <label><input type="checkbox" name="format" value="italic"> Italic</label>
        <label><input type="checkbox" name="format" value="underline">
Underline</label>
      </div><br>
```

```
    <label>Select Color:</label>
    <div class="radio-group">
      <label><input type="radio" name="color" value="red"> Red</label>
      <label><input type="radio" name="color" value="green"> Green</label>
      <label><input type="radio" name="color" value="blue"> Blue</label>
      <label><input type="radio" name="color" value="black" checked> Black</label>
    </div><br>

    <button type="submit">Display Message</button>
    <button type="reset">Clear</button>
  </form>

  {% if formatted_message %}
    <div class="message-output">
      <p>{% autoescape off %}{{ formatted_message|safe }}{% endautoescape %}</p>
    </div>
  {% endif %}
</body>
</html>
```

v) Screenshots