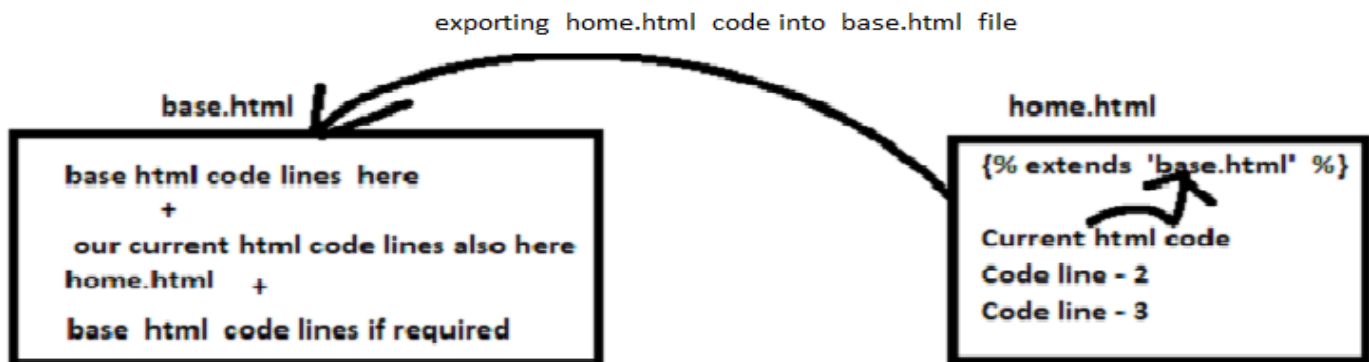


Django Template Inheritance:

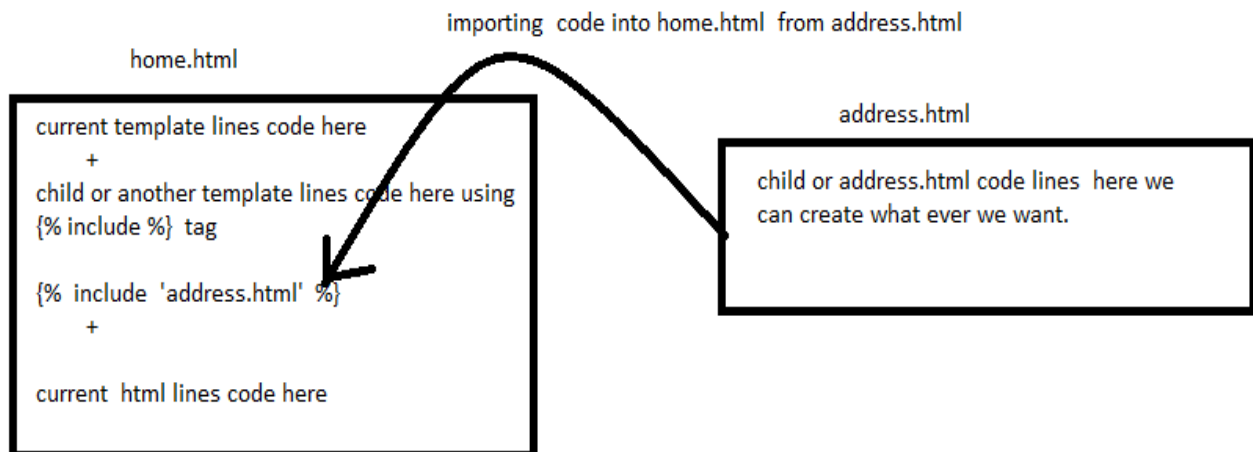
- If multiple template files have same common code, it is not recommended to write that common code in every template html file.
- It increases length of the code and reduces readability. It also increases development time.
- We have to separate that common code from templates files into a new template file, which is also known as "**base**" template.
- The remaining template files should be required to extend "base" template so that the common code will be inherited automatically.
- **Inheriting common code from base template to remaining templates is nothing but "Template Inheritance".**
- Generally the header and footer parts of the web site will repeat for every webpage, so the header and footer coding will be taken into separate html file.
- Then we use this new html file in remaining all web pages like homepage, contact page, services page, about page...
- Generally we save this new html file with name as base.html
- We use "{% extends %}" and "{% include %}" tags at the time of inheriting the base.html file.
- If we use {% extends %} tag then the current html file will load into base.html and then display on the browser.

For example:



- If we use {% include %} tag then the base.html file will load into the current html.

For example:



Create a project for working with Template Inheritance Concept:

Step1: Create a Django ProjectName like **Template_Inheritance_Project**

Step2: Create a Application Name like **Template_Inheritance_App**

Step3: Create Database Name like **7am_inheritedb**

Step4: Open settings.py do like below

----->> Add our applicationName inside INSTALLED_APPS section

```
INSTALLED_APPS = [  
    'django.contrib.admin',  
    'django.contrib.auth',  
    'django.contrib.contenttypes',  
    'django.contrib.sessions',  
    'django.contrib.messages',  
    'django.contrib.staticfiles',  
  
    'studentapp.apps.StudentappConfig',  
]
```

---->> Goto settings.py file and configure database details under DATABASE section.

```
DATABASES = {  
    'default': {  
        'ENGINE' : 'django.db.backends.mysql',  
        'NAME' : '7am_inheritedb',  
        'USER' : 'root',  
        'PASSWORD' : 'root',  
    }  
}
```

Step5 : Open **views.py** and create views like bellow

```
from django.shortcuts import render  
import datetime
```

```
def HomeView(request):  
    return render(request, 'home.html')
```

```
def ContactView(request):  
    return render(request, 'contact.html')
```

```
def DateTimeView(request):  
    time = datetime.datetime.now()  
    return render(request, "datetime.html", {'time':time})
```

```
def ServicesView(request):
    context = {
        "languages" : ['Python', 'Java', 'DotNet'],
        "Databases" : ["MySQL DB", "Oracle DB", "Mongo DB"]
    }
    return render(request, 'services.html', context)
```

Step6: Open `urls.py` and create required urls for mapping views.

```
from django.contrib import admin
from django.urls import path
from studentapp import views

urlpatterns = [
    path('admin/', admin.site.urls),
    path('', views.HomeView, name='home')
    path('home/', views.HomeView, name='home'),
    path('contact/', views.ContactView, name='contact'),
    path('datetime/', views.DateTimeView, name='date_time'),
    path('services/', views.ServicesView, name='services'),
]
```

Step7: Create required all templates files related views.py file

```
templates
    base.html
    home.html
    contact.html
    services.html
```

templates/base.html

```
<!DOCTYPE html>
<html lang="en">
<head>
<meta charset="utf-8">
<meta name="viewport" content="width=device-width, initial-scale=1">
<link rel="stylesheet"
href="https://maxcdn.bootstrapcdn.com/bootstrap/4.5.2/css/bootstrap.min.css">
<script src="https://ajax.googleapis.com/ajax/libs/jquery/3.5.1/jquery.min.js"></script>
<script src="https://cdnjs.cloudflare.com/ajax/libs/popper.js/1.16.0/umd/popper.min.js"></script>
<script src="https://maxcdn.bootstrapcdn.com/bootstrap/4.5.2/js/bootstrap.min.js"></script>

<title>
    {% block title %}    {% endblock %}
</title>
```

```

<style>
    nav{ background-color: black; padding: 20px 0px; }

    nav a{ padding-right: 160px; color: white; padding-left: 20px; }

    a:hover{ color: white; text-decoration: none; }

    nav:hover{ background-color: brown; }
</style>
</head>

<body>
<div class="container">
    <nav>
        <a href="{% url 'home' %}">Home</a>
        <a href="{% url 'contact' %}">Contact</a>
        <a href="{% url 'services' %}">Services</a>
        <a href="{% url 'date_time' %}">DateTime</a>
    </nav>

    <h1>welcome to Template Inheritance concept</h1>
    <hr style="padding: 5px;background-color: yellow">

    {% block body %}

    {% endblock %}
</div>
</body>
</html>

```

templates/child.html

```

<hr style="padding: 5px;background-color: green">

<h1> Iam from child template using <b style="color: red">include</b> tag</h1>

```

templates/home.html

```

{% extends 'base.html' %}

{% block title %} Home Page {% endblock %}

{% block body %}
    <h1>Welcome to Home Page</h1>
    {% include 'child.html' %}
{% endblock %}

```

templates/contact.html

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

{% block title %} Contact Page {% endblock %}

{% block body %}
    <h1>Welcome to Contact Page</h1>
    {% include 'child.html' %}
{% endblock %}
```

templates/datetime.html

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

{% block title %} Date and Time Page {% endblock %}

{% block body %}
    <h1>Today Date and Time is : <b style="color: red">{{ time }}</b></h1>
    {% include 'child.html' %}
{% endblock %}
```

templates/services.html

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

{% block title %} Services Page {% endblock %}

{% block body %}
    {% if languages %}
        <h5>Avilable Languages:</h5>
        <ol>
            {% for language in languages %}
                <li>{{ language }} language.</li>
            {% endfor %}
        </ol>
    {% endif %}

    {% if Databases %}
        <h5>Available Databases:</h5>
        <ol>
            {% for Database in Databases %}
                <li>{{ Database }}</li>
            {% endfor %}
        </ol>
    {% endif %}
    {% include 'child.html' %}

{% endblock %}
```

Step8: Execute the runserver command to run the server

Step9: Now send the requested urls from browser to get response

----->>> Now send datetime url to get Today's date and time response

127.0.0.1:9922/datetime/

Home

Contact

Services

DateTime

welcome to Template Inheritance concept

Today Date and Time is : **Aug. 4, 2023, 2:10 p.m.**

I am from child template using **include** tag

----->>> Now send services url to get services page

127.0.0.1:9922/services/

Home

Contact

Services

DateTime

welcome to Template Inheritance concept

Available Languages:

1. Python language.
2. Java language.
3. DotNet language.

Available Databases:

1. MySQL DB
2. Oracle DB
3. Mongo DB

I am from child template using **include** tag