**Custom Filters in Django**

**Video no 44**

**Code no 37**

**🔹 What are Template Filters in Django?**

* In Django **templates**, filters are used to modify variables before displaying them.
* Example:
* {{ name|upper }} → Converts `name` to uppercase
* {{ bio|truncatechars:20 }} → Shows only 20 characters of `bio`

👉 Django already provides **built-in filters** (like upper, lower, truncatechars, date, length, etc.),  
but sometimes we need **our own logic** → that’s where **Custom Filters** come in.

**🔹 How to Create a Custom Filter in Django?**

To make a custom filter, you create a **templatetags** folder inside your app and register your own filter.

**1. Project Structure**

myapp**/**

│

├── templatetags**/**

│   ├── \_\_init\_\_**.**py       *# Makes it a Python package*

│   ├── customfilter**.**py   *# Our custom filter code*

**2. Writing Custom Filter Code**

customfilter**.**py

**from** django **import** template

*# Step 1: Create a Library object to register filters*

register **=** template**.**Library()

*# Step 2: Define your filter function*

**def** myreplace(**value,** **args**)**:**

    """

    Custom filter to replace 'i am' with 'we are'

    value → the variable passed from template

    args → the string you want to replace

    """

**return** value**.**replace(args**,** 'we are')

*# Step 3: Register the filter*

register**.**filter('iamToweare'**,** myreplace)

**3. Using Filter in Template**

home.html

{**%** load customfilter **%**}   **<**!-- Load your custom filter file --**>**

**<**!DOCTYPE html**>**

**<**html lang**=**"en"**>**

**<**head**>**

**<**meta charset**=**"UTF-8"**>**

**<**title**>**Custom Filters**</**title**>**

**</**head**>**

**<**body**>**

**<**h1**>**Home Page**</**h1**>**

**<**h2**>**{{ data }}**</**h2**>**

**<**!-- Shows original value --**>**

**<**h2**>**{{ data**|**upper }}**</**h2**>**

**<**!-- Uses built**-in** filter (Uppercase) --**>**

**<**h2**>**{{ data**|**truncatechars**:**5 }}**</**h2**>**

**<**!-- Uses built**-in** filter (Truncate to 5 chars) --**>**

**<**h2**>**{{ data**|**iamToweare**:**"i am" }}**</**h2**>**

**<**!-- Uses our custom filter (Replaces 'i am' **with** 'we are') --**>**

**</**body**>**

**</**html**>**

**4. Example Output**

Suppose in views.py you send:

**def** home(**request**)**:**

**return** render(request**,** "home.html"**,** {"data"**:** "hello, i am Talha"})

👉 Output:

hello, i am Talha

HELLO, I AM TALHA

hello

hello, we are Talha

**🔹 Extra Notes on Custom Filters**

* You can register filters in **two ways**:
* •   **@**register**.**filter(**name=**'iamToweare')
* •   **def** myreplace(**value,** **args**)**:**
* •       **return** value**.**replace(args**,** 'we are')

or the way you did using register.filter().

* Filters **must return a value** (not None).
* You can use multiple filters together:
* {{ data|iamToweare:"i am"|upper }}

👉 This first replaces text, then converts to uppercase.

**🔹 Built-in vs Custom Filter**

* **Built-in** → Already available (upper, date, length, etc.)
* **Custom** → You create for special logic your project needs.

Two methods without and with decorders :

**📌 customfilter.py inside templatetags/**

**from** django **import** template

register **=** template**.**Library()

*# -------------------------------*

*# 1) Without decorator (manual register)*

*# -------------------------------*

**def** myreplace(**value,** **args**)**:**

**return** value**.**replace(args**,** 'we are')

*# Register filter manually*

register**.**filter('iamToweare'**,** myreplace)

*# -------------------------------*

*# 2) With decorator*

*# -------------------------------*

@register**.**filter(**name=**'iamToweare2')

**def** myreplace2(**value,** **args**)**:**

**return** value**.**replace(args**,** 'we are')

\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

📌 In home**.**html

{**%** load customfilter **%**}

**<**!DOCTYPE html**>**

**<**html lang**=**"en"**>**

**<**head**>**

**<**meta charset**=**"UTF-8"**>**

**<**title**>**Custom Filters**</**title**>**

**</**head**>**

**<**body**>**

**<**h1**>**Custom Filters Demo**</**h1**>**

**<**h2**>**Original**:** {{ data }}**</**h2**>**

**<**h2**>**Uppercase**:** {{ data**|**upper }}**</**h2**>**

**<**h2**>**Truncated**:** {{ data**|**truncatechars**:**5 }}**</**h2**>**

**<**!-- Using manual register filter --**>**

**<**h2**>**Manual Filter**:** {{ data**|**iamToweare**:**'i am' }}**</**h2**>**

**<**!-- Using decorator filter --**>**

**<**h2**>**Decorator Filter**:** {{ data**|**iamToweare2**:**'i am' }}**</**h2**>**

**</**body**>**

**</**html**>**