**Template Language**

A **template** is a text document, or a normal Python string, that is marked-up using the Django template language. A template can contain **block tags** or **variables**.

**Block tags** are surrounded by **"{%"** and **"%}"**.

Example template with block tags:

{% **if** is\_logged\_in %}Thanks for logging in!{% **else** %}Please log in.{% **endif** %}

**A variable** is a symbol within a template that outputs a value.

Variable tags are surrounded by **"{{"** and **"}}"**.

Example template with variables:

My first name is {{ first\_name }}. My last name is {{ last\_name }}.

**Templates**

A template is simply a text file. It can generate any text-based format (HTML, XML, CSV, etc.).

A template contains **variables**, which get replaced with values when the template is evaluated, and **tags**, which control the logic of the template.

**Filters**

You can modify variables for display by using **filters**.

Filters look like this: **{{ name|lower }}**.

This displays the value of the **{{ name }}** variable after being filtered through the **lower** filter, which converts text to lowercase. Use a pipe (**|**) to apply a filter.

Some filters take arguments. A filter argument looks like this: **{{bio|truncatewords:30 }}**. This will display the first 30 words of the **bio** variable.

Filter arguments that contain spaces must be quoted; for example, to join a list with commas and spaced you’d use **{{ list|join:", " }}**.

**Built-in filter reference**

**1) add :** Adds the argument to the value.

**For example:** {{ value|add:"2" }}

If **value** is **4**, then the output will be **6** **and first** is **[1, 2, 3]** and **second** is **[4, 5, 6]**, then the output will be **[1, 2, 3, 4, 5, 6]**.

**2) addslashes :** Adds slashes before quotes. Useful for escaping strings in CSV, for example.

**For example:** {{ value|addslashes }}

If **value** is **"This is Naveen's",** the output will be **"This is Naveen\'s**.

**3) capfirst :** Capitalizes the first character of the value. If the first character is not a letter, this filter has no effect.

**For example:** {{ value|capfirst }}

If **value** is **"naveen"**, the output will be **"Naveen"**.

**4) center :** Center the value in a field of a given width.

**For example:** "{{ value|center:"15" }}"

If **value** is **"Naveen"**, the output will be **"     Naveen    "**.

**5) cut :** Removes all values of arg from the given string.

**For example:** {{ value|cut:" " }}

If **value** is **"String with spaces"**, the output will be **"Stringwithspaces"**.

**6) default :** If value evaluates to **False**, uses the given default. Otherwise, uses the value.

**For example:** {{ value|default:"nothing" }}

If **value** is **""** (the empty string), the output will be **nothing**.

**7) default\_if\_none :** If (and only if) value is **None**, uses the given default. Otherwise, uses the value.

Note that if an empty string is given, the default value will *not* be used. Use the **default** filter if you want to fallback for empty strings.

**For example:** {{ value|default\_if\_none:"nothing" }}

If **value** is **None**, the output will be the string **"nothing"**.

**8) dictsort:** Takes a list of dictionaries and returns that list sorted by the key given in the argument.

**For example:** {{ value|dictsort:"name" }}

If **value** is : [

{'name': 'zed', 'age': 19},

{'name': 'amy', 'age': 22},

{'name': 'joe', 'age': 31},

]

then the output would be:

[

{'name': 'amy', 'age': 22},

{'name': 'joe', 'age': 31},

{'name': 'zed', 'age': 19},]

**9) dictsortreversed :** Takes a list of dictionaries and returns that list sorted in reverse order by the key given in the argument. This works exactly the same as the above filter, but the returned value will be in reverse order.

**10) divisibleby :** Returns **True** if the value is divisible by the argument.

**For example:** {{ value|divisibleby:"3" }}

If **value** is **21**, the output would be **True**.

**11) filesizeformat :** Formats the value like a ‘human-readable’ file size (i.e. **'13 KB'**, **'4.1MB'**, **'102 bytes'**, etc).

**For example:** {{ value|filesizeformat }}

If **value** is 123456789, the output would be **117.7 MB**.

**12) first :** Returns the first item in a list.

**For example:** {{ value|first }}

If **value** is the list **['a', 'b', 'c']**, the output will be **'a'**.

**13) floatformat :** When used without an argument, rounds a floating-point number to one decimal place – but only if there’s a decimal part to be displayed. For example:

| **value** | **Template** | **Output** |
| --- | --- | --- |
| **34.23234** | **{{ value|floatformat }}** | **34.2** |
| **34.00000** | **{{ value|floatformat }}** | **34** |
| **34.26000** | **{{ value|floatformat }}** | **34.3** |

If used with a numeric integer argument, **floatformat** rounds a number to that many decimal places.

**For example:**

| **value** | **Template** | **Output** |
| --- | --- | --- |
| **34.23234** | **{{ value|floatformat:3}}** | **34.232** |
| **34.00000** | **{{ value|floatformat:3}}** | **34.000** |
| **34.26000** | **{{ value|floatformat:3}}** | **34.260** |

Particularly useful is passing 0 (zero) as the argument which will round the float to the nearest integer.

| **value** | **Template** | **Output** |
| --- | --- | --- |
| **34.23234** | **{{ value|floatformat:"0" }}** | **34** |
| **34.00000** | **{{ value|floatformat:"0" }}** | **34** |
| **39.56000** | **{{ value|floatformat:"0" }}** | **40** |

If the argument passed to **floatformat** is negative, it will round a number to that many decimal places – but only if there’s a decimal part to be displayed. For example:

| **value** | **Template** | **Output** |
| --- | --- | --- |
| **34.23234** | **{{ value|floatformat:"-3" }}** | **34.232** |
| **34.00000** | **{{ value|floatformat:"-3" }}** | **34** |
| **34.26000** | **{{ value|floatformat:"-3" }}** | **34.260** |

Using **floatformat** with no argument is equivalent to using **floatformat** with an argument of **-1**.

**14) join :** Joins a list with a string, like Python’s **str.join(list)**

**For example:** {{ value|join:" // " }}

If **value** is the list **['a', 'b', 'c']**, the output will be the string **"a// b // c"**.

**15) get\_digit :** Given a whole number, returns the requested digit, where 1 is the right-most digit, 2 is the second-right-most digit, etc. Returns the original value for invalid input (if input or argument is not an integer, or if argument is less than 1). Otherwise, output is always an integer.

**For example:** {{ value|get\_digit:"2" }}

If **value** is **123456789**, the output will be **8**.

**16) last:** Returns the last item in a list.

**For example:** {{ value|last }}

If **value** is the list **['a', 'b', 'c', 'd']**, the output will be the string **"d"**.

**17) length:** Returns the length of the value. This works for both strings and lists.

**For example:** {{ value|length }}

If **value** is **['a', 'b', 'c', 'd']**, the output will be **4**.

**18) length\_is :** Returns **True** if the value’s length is the argument, or **False** otherwise.

**For example:** {{ value|length\_is:"4" }}

If **value** is **['a', 'b', 'c', 'd']**, the output will be **True**.

**19) linenumbers :** Displays text with line numbers.

**For example:** {{ value|linenumbers }}

If **value** is :

one

two

three

**the output will be:**

1. one

2. two

3. three

**20) lower:** Converts a string into all lowercase.

**For example:** {{ value|lower }}

If **value** is **This is Naveen**, the output will be **this is naveen**.

**21) make\_list :** Returns the value turned into a list. For a string, it’s a list of characters. For an integer, the argument is cast into an unicode string before creating a list.

**For example:** {{ value|make\_list }}

If **value** is the string **"Naveen"**, the output would be the list **['N', 'a', 'v', 'e', 'e', 'n']**.

If **value** is **123**, the output will be the list **['1', '2', '3']**.

**22) random :** Returns a random item from the given list.

**For example:** {{ value|random }}

If **value** is the list **['a', 'b', 'c', 'd']**, the output could be **"b"**.

**23) slice :** Returns a slice of the list.

**Example:** {{ some\_list|slice:":2" }}

If **some\_list** is **['a', 'b', 'c']**, the output will be **['a', 'b']**.

**25) time :** Formats a time according to the given format.

**For example:** {{ value|time:"H:i" }}

If **value** is equivalent to **datetime.datetime.now()**, the output will be the string **"01:23"**.

**26) title :** Converts a string into title case by making words start with an uppercase character and the remaining characters lowercase. This tag makes no effort to keep “trivial words” in lowercase.

**For example:** {{ value|title }}

If **value** is **"my FIRST post"**, the output will be **"My First Post"**.

**28) truncatewords :** Truncates a string after a certain number of words. **Argument:** Number of words to truncate after

**For example:** {{ value|truncatewords:2 }}

If **value** is **"This is Naveen From "**, the output will be **"This is..."**.

Newlines within the string will be removed.

**29) upper :** Converts a string into all uppercase.

**For example:** {{ value|upper }}

If **value** is **"This is Naveen"**, the output will be **"THIS IS NAVEEN"**.

**30) wordcount :** Returns the number of words.

**For example:** {{ value|wordcount }}

If **value** is **"This is Naveen Kumar"**, the output will be **4**.

**31) wordwrap:** Wraps words at specified line length.

**Argument:** number of characters at which to wrap the text

**For example:** {{ value|wordwrap:5 }}