

# Django Template Language

## Variables

- **Syntax:** `{{ variable }}`
- **Example:** `{{ user.username }}`

## Filters

- **Syntax:** `{{ variable|filter }}`
- **Example:** `{{ text|lower }}`

## Common Filters

- **length:** `{{ list|length }}`
- **lower:** `{{ string|lower }}`
- **upper:** `{{ string|upper }}`
- **capfirst:** `{{ string|capfirst }}`
- **default:** `{{ variable|default:"default_value" }}`
- **date:** `{{ date|date:"Y-m-d" }}`
- **time:** `{{ time|time:"H:i" }}`
- **truncatechars:** `{{ string|truncatechars:20 }}`
- **truncatewords:** `{{ string|truncatewords:5 }}`
- **urlencode:** `{{ string|urlencode }}`
- **linebreaks:** `{{ text|linebreaks }}`
- **safe:** `{{ html|safe }}`

## Tags

## Control Structures

## If Statement

```
{% if condition %}
    <!-- code -->
{% elif condition %}
    <!-- code -->
{% else %}
    <!-- code -->
{% endif %}
```

## For Loop

```
{% for item in list %}
    {{ item }}
{% endfor %}
```

## Template Inheritance

### Base Template

```
<!DOCTYPE html>
<html>
<head>
    <title>{% block title %}Default title{% endblock %}</title>
</head>
<body>
    {% block content %}{% endblock %}
</body>
</html>
```

### Child Template

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

{% block title %}Page Title{% endblock %}
```

```
{% block content %}
    <p>This is the content of the page.</p>
{% endblock %}
```

## Include

```
{% include "header.html" %}
```

## Template Tags

### Load

- **Syntax:** `{% load module_name %}`
- **Example:** `{% load static %}`

### Static

- **Syntax:** `{% static "path/to/file" %}`
- **Example:** ``

### URL

- **Syntax:** `{% url 'url_name' %}`
- **Example:** `<a href="{% url 'home' %}">Home</a>`

### With

- **Syntax:** `{% with variable=value %}`
- **Example:**

```
{% with total=business.employees.count %}
    <p>Total employees: {{ total }}</p>
{% endwith %}
```

### Comment

- **Syntax:** `{% comment %} text {% endcomment %}`
- **Example:**

```
{% comment %}  
This is a comment.  
{% endcomment %}
```

## Template Filters Detailed Usage

### Truncate

- **truncatechars:** Truncate a string after a certain number of characters.

```
{{ string|truncatechars:20 }}
```

- **truncatewords:** Truncate a string after a certain number of words.

```
{{ string|truncatewords:5 }}
```

### Date and Time Formatting

- **date:** Format a date according to the given format string.

```
{{ date|date:"Y-m-d" }}
```

- **time:** Format a time according to the given format string.

```
{{ time|time:"H:i" }}
```

### Strings

- **lower:** Convert a string to lowercase.

```
{{ string|lower }}
```

- **upper:** Convert a string to uppercase.

```
{{ string|upper }}
```

- **capfirst:** Capitalize the first character of the string.

```
{{ string|capfirst }}
```

- **default:** Provide a default value if a variable is not defined.

```
{{ variable|default:"default_value" }}
```

- **length:** Return the length of the string or list.

```
{{ list|length }}
```

- **urlencode:** Encode a URL.

```
{{ string|urlencode }}
```

- **linebreaks:** Convert newlines into <p> and <br> tags.

```
{{ text|linebreaks }}
```

- **safe:** Mark a string as safe for HTML output.

```
{{ html|safe }}
```

## Custom Filters and Tags

You can create custom filters and tags if the built-in ones don't meet your needs.

### Custom Filter Example

1. **Create a custom filter in your `templatetags` module:**

Create a file `templatetags/custom_filters.py` in your app:

```

from django import template

register = template.Library()

@register.filter(name='truncatechars')
def truncatechars(value, arg):
    if len(value) > arg:
        return value[:arg] + '...'
    return value

```

## 2. Load and use the custom filter in your template:

```

{% load custom_filters %}
{{ string|truncatechars:20 }}

```

## Example Usage in Templates

Here's a sample template demonstrating various features:

```

{% extends "base.html" %}

{% block title %}Page Title{% endblock %}

{% block content %}
    <p>{{ course.course_desc|truncatechars:20 }}</p>
    {% if user.is_authenticated %}
        <p>Welcome, {{ user.username|capfirst }}!</p>
    {% endif %}

    {% for item in items %}
        <p>{{ item.name }} - {{ item.description|truncatewords:10
    }}</p>
    {% endfor %}

    

```

```
<a href="{% url 'home' %}">Home</a>
{% endblock %}
```