

# WEB PROGRAMMING WITH PYTHON AND DJANGO

## ALM-1

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### Django Template Language

#### Templates :-

A template is a text file. It can generate any text-based format (HTML, XML etc). A template contains variables, which get replaced with values when the template is evaluated, and tags, which control the logic of the template.

#### Ex :-

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

{% block title %} {{ section.title }} {% endblock %}

{% block content %}

<h1> {{ section.title }} </h1>

{% for story in story_list %}

<h2>

<a href = "{{ story.get_absolute_url }}">

{{ story.headline | upper }} </a>

</h2>

{% endfor %}

{% endblock %}
```

## Variables :

A variable outputs a value from the Context, which is dict-like object mapping keys to values.

Variables are surrounded by `{{ and }}` like this

Ex:

My first name is `{{ first-name }}`

My last name is `{{ last-name }}`.

With a Context of `{ 'first-name': 'Sunil', 'last-name': 'P' }` this template renders to:

my first name is Sunil

my last name is P.

\* Dictionary lookup, attribute lookup and list-index lookups are implemented with dot notation.

`{{ my-dict.key }}`

`{{ my-object.attribute }}`

`{{ my-list.0 }}`

## Tags :-

Tags provide arbitrary logic in the rendering process. The definition is deliberately vague. For example, a tag can output content, serve as a control structure e.g. an "if" statement or a "for" loop, grab content from a database, or even enable access to other template tags.

Tags are surrounded by `{% and %}` like this :

```
{% csrf_token %}
```

→ Most tags accept arguments :

```
{% cycle 'odd' 'even' %}
```

→ Some tags require beginning and ending tags :

```
{% if user.is_authenticated %}
```

```
Hello, {{ user.username }}. {% endif %}
```

## Inheritance :

extend tag is used for inheritance of templates in django. One needs to repeat the same code again and again. Using extends we can inherit templates as well as variables.

### Syntax :-

```
{% extend 'template_name.html' %}
```

### Example :-

> Create a base template in templates/sample.html

```
<h1> Main Template </h1>
```

```
{% block Content %}
```

```
{% endblock %}
```

> Create a new template sampleextend.html.

```
{% extend "sample.html" %}
```

```
{% block Content %}
```

```
<h2> This is extended page </h2>
```

```
{% endblock %}
```

### Output :-

Main Template

This is extended page.