

### Basic Expressions

```

{{ "Hello World" }} Outputs Hello World
{{ foo }}           Outputs value of 'foo'
                    variable
{{ 2 + 3 }}         Outputs number 5
{{ 5 > 10 }}        Outputs "False"
    
```

### If Statement

```

{% if hour > 5 and hour < 12 %}
    Good Morning!
{% elif number >= 12 and hour < 17 %}
    Good Afternoon!
{% elif number >= 17 %}
    Good Evening!
{% endif %}
    
```

### For Loop

```

{% for number in 10 %}
    {{ number }}
{% endfor %}
    
```

### For loop with conditions

```

{% for item in states if
item.attributes.emulated_hue_name|length > 0-
%}
{%- if loop.first %}{% elif loop.last %}, and {%
else %}, {% endif -%}
{{item.attributes.emulated_hue_name|title}}
{%- endfor -%}.
    
```

When iterating through a loop, sometimes we would like to add additional logic based on the loop counter. This is an example.

### String Manipulations

```

{{ "Hello" ~ " World" }} Outputs "Hello World" (String
                        Concatenation)
{{ "Hello World" | lower }}
                        Outputs "hello world"
{{ "hello world" | title }}
                        Outputs "Hello World"
{{ "hello world" | upper }}
                        Outputs "HELLO WORLD"
    
```

### String Manipulations (cont)

```

{{ "hello world".split(' ') }}
                        Splits by delimiter ' ' and
                        outputs "hello"
                        [0] }}
{{ "hello" | replace("he", "she") }}
                        Replaces "he" with "she", and
                        outputs "shello"
{{ "hello" | length }}
                        Outputs number of
                        characters, which is 5
{{ "hello" == "hello" }}
                        Compares strings, if equal,
                        returns True
{{ "Hello world"[:4] }}
                        Get Substring - Returns
                        "Hell", the first 4 characters
{{ "HELLO" [2:4] }}
                        Get Substring - Returns "LL"
{{ "HELLO"[:-3] }}
                        Get Substring - Removes last
                        three characters, Returns
                        "HE"
    
```

### Date and Time

```

{{ now() }}           Prints current date and
                        time value
{{
now().strftime("%m-%d-%Y") }}
                        Outputs "07-26-2017"
                        by converting datetime
                        value to the specified
                        format
{{
as_timestamp(now()) | timestamp_custom("%m-%d-%Y", true) }}
                        Outputs "07-26-2017"
                        by converting datetime
                        value to the specified
                        format
{{
now().strftime("%m") }}
                        Outputs Month value.
                        For ex: 07
    
```

For additional date and time related formats, please visit <http://strftime.org/>

### Number Conversions

```

{{ 10.5 }}           Prints the number as
                        is
{{ 10.500482737 | int }}
                        Converts float to
                        decimal
{{ 10.6 | round }}
                        Rounds to nearest
                        decimal number
{{ 10.4 | round }}
                        Rounds to nearest
                        decimal number
{{ 10 | float }}
                        Converts Decimal to
                        float
{{ '%0x' % 255 }}
                        Changes Decimal to
                        Hex Value
{{ "%0x" | format (some_numeric_value | int) }}
                        Converts numeric
                        value to Hex Value
{{ '%0.2f' % 24.12345 }}
                        Only displays two
                        digits after decimal
                        point
{{
"${:.2f}".format(15.45) }}
                        Formats currency
    
```

### Basic Macros

```

{% macro sayHello() -%}
    Hello!
{%- endmacro %}
Call the macro using {{ sayHello() }}
    
```

### Random

```

{{["hello", "hi there!", "howdy!", "hey there!"]|random}}
    
```

### Troubleshooting

1. Always convert to proper data type prior to using any filters.

For example,

```

{{ set value = "123" }}
{{ value > 100 }} given the value is of "string"
type, make sure you convert to decimal first.
{{ (value | int) > 123 }}
    
```

