# {{ project.name }}

This template is an example of how Jinja2 variables can be used in a Word template to dynamically drop-in information and generate tables. The following output is based on the Ghostwriter project: {{ client.name }} ({{ client.short\_name }}) {{ project.type }} (generated on {{ report\_date }})

The “raw” (JSON) report will show you the data accessible from your template. Some of this data is chopped-up into smaller bits to make it easy to reassemble in different ways. For example, the project’s start and end dates are accessible as pre-formatted dates based on your locale:

{{ project.start\_date }} – {{ project.end\_date }}

Perhaps you want to reference only pieces (e.g., day, month, and year) of these dates to present them in different ways. Here is one option for dynamically assembling a date range:

{% if project.start\_year == project.end\_year %}{% if project.start\_month == project.end\_month %}{{ project.start\_month }} {{ project.start\_day }}–{{ project.end\_day }}, {{ project.end\_year }}{% else %}{{ project.start\_day }} {{ project.start\_month }} to {{ project.end\_day }} {{ project.end\_month }} {{ project.end\_year }}{% endif %}{% else %}{{ project.start\_day }} {{ project.start\_month }} {{ project.end\_year }} to {{ project.end\_day }} {{ project.end\_month }} {{ project.end\_year }}{% endif %}

You can also pull in some pre-calculated values for various parts of your project and perform calculations:

Table – Assessment Totals

|  |  |  |
| --- | --- | --- |
| Value | Total | Math |
| **Objectives** | {{ totals.objectives }} |  |
| **Completed Objectives** | {{ totals.objectives\_completed }} | {% if totals.objectives > 0 %}{{ totals.objectives\_completed / totals.objectives }}{% else %}100{% endif %}% |
| **Findings** | {{ totals.findings }} |  |
| **Team Members** | {{ totals.team }} |  |
| **Targeted Hosts** | {{ totals.targets }} |  |
| **Scope** | {{ totals.scope }} |  |

Be mindful of performing math like dividing a value that could be zero. In the above example, this template would fail rendering with an error if total.objectives was zero and the block did not have if totals.objectives > 0.

You will see an error like this:

Word document generation failed because the selected template has Jinja2 code that attempts to divide by zero

Tip: Before performing math, check if the number is greater than zero

## Assessment Points of Contact & Stakeholders

You can also create tables with loops:

Table – {{ client.name }} Points of Contact

|  |  |  |
| --- | --- | --- |
| Name | Role | Email |
| {%tr for poc in client.contacts %} | | |
| {{ poc.name }} | {{ poc.job\_title }} | {{ poc.email }} |
| {%tr endfor %} | | |

Table – {{ company.name }} Points of Contact

|  |  |  |
| --- | --- | --- |
| Name | Role | Email |
| {%tr for member in team %} | | |
| {{ member.name }} | {{ member.role }} | {{ member.email }} |
| {%tr endfor %} | | |

Table – Domain Names Used for Assessment Activities

|  |  |
| --- | --- |
| Domain Name | Role |
| {%tr for domain in infrastructure.domains %} | |
| {{ domain.domain }} | {{ domain.activity }} |
| {%tr endfor %} | |

Table – Servers Used for Assessment Activities

|  |  |  |
| --- | --- | --- |
| IP Address | Purpose | Role |
| {%tr for server in infrastructure.servers %} | | |
| {{ server.ip\_address }} | {{ server.activity }} | {{ server.role }} |
| {%tr endfor %} | | |
| {%tr for server in infrastructure.cloud %} | | |
| {{ server.ip\_address }} | {{ server.activity }} | {{ server.role }} |
| {%tr endfor %} | | |

Table – Summary of Findings

|  |  |
| --- | --- |
| Finding | Severity |
| {%tr for finding in findings %} | |
| {{ finding.title }} | {% cellbg finding.severity\_color %}{{ finding.severity }} |
| {%tr endfor %} | |

There are numerous Jinja2 filters available within templates. Ghostwriter also has some custom filters (see the wiki). The above template looks like this with the filter\_severity filter:

|  |  |
| --- | --- |
| Finding | Severity |
| {%tr for finding in findings|filter\_severity([“Critical”, “High”]) %} | |
| {{ finding.title }} | {% cellbg finding.severity\_color %}{{ finding.severity }} |
| {%tr endfor %} | |

Here is that table again with the filter\_type filter:

|  |  |
| --- | --- |
| Finding | Severity |
| {%tr for finding in findings|filter\_type([“Network”, “Web”]) %} | |
| {{ finding.title }} | {% cellbg finding.severity\_color %}{{ finding.severity }} |
| {%tr endfor %} | |

Findings–and some other objects–include special versions of their content called *RichText* objects. These objects have the same name as the normal object with “\_rt” at the end. For example, a finding has a *Description* field that you access with finding.description. There is also a finding.description\_rt version that drops into a Word document fully formatted and styled.

Check the wiki for more and look at the following section.

{% for finding in findings %}

{{ finding.title }}

**Severity – {{ finding.severity\_rt }}**

#### Affected Entities

{{p finding.affected\_entities\_rt }}

#### Description

{{p finding.description\_rt }}

#### Impact

{{p finding.impact\_rt }}

#### Mitigation

{{p finding.recommendation\_rt }}

#### Replication Steps

{{p finding.replication\_steps\_rt }}

#### References

{{p finding.references\_rt }}

{% endfor %}