Here is a list of common QWeb syntax elements used in Odoo:

**1. Variables and Expressions:**

* **t-esc**: Escapes and displays content (safe from injection attacks).
* <div t-esc="object.name"/>
* **t-field**: Displays the value of a model field.
* <span t-field="object.partner\_id.name"/>

**2. Conditionals:**

* **t-if**: Conditional check (similar to if statement).
* <t t-if="object.state == 'draft'">
* <p>Draft Status</p>
* </t>
* **t-else**: The else branch for t-if.
* <t t-if="object.state == 'draft'">
* <p>Draft Status</p>
* </t>
* <t t-else="">
* <p>Not a Draft</p>
* </t>
* **t-elif**: Else-if condition.
* <t t-if="object.state == 'draft'">
* <p>Draft Status</p>
* </t>
* <t t-elif="object.state == 'confirmed'">
* <p>Confirmed Status</p>
* </t>
* <t t-else="">
* <p>Other Status</p>
* </t>

**3. Loops:**

* **t-foreach**: Loop over a collection (list or recordset).
* <t t-foreach="order.lines" t-as="line">
* <tr>
* <td t-esc="line.product\_id.name"/>
* <td t-esc="line.product\_uom\_qty"/>
* </tr>
* </t>

**4. Variable Assignment:**

* **t-set**: Set a variable within the template.
* <t t-set="total\_price" t-value="sum(line.price\_total for line in order.lines)"/>
* <p>Total: <t t-esc="total\_price"/></p>

**5. Function Calls:**

* **t-call**: Call another template within the current template.
* <t t-call="some\_template\_id"/>
* **t-raw**: Display raw, unescaped HTML content (be cautious of potential XSS risks).
* <div t-raw="object.html\_content"/>

**6. Template Inheritance:**

* **inherit\_id**: Inherit and extend a base template.
* <template id="my\_custom\_template" inherit\_id="base\_template">
* <xpath expr="//div[@class='header']" position="before">
* <h2>Custom Header</h2>
* </xpath>
* </template>
* **xpath**: Used for targeting specific areas in inherited templates.
* <xpath expr="//div[@id='main']" position="replace">
* <p>New Content</p>
* </xpath>

**7. Template Blocks:**

* **block**: Define reusable content blocks in templates.
* <t t-call="base.template\_header"/>

**8. Static Assets:**

* **t-att**: Add dynamic attributes to HTML elements.
* <div t-att-class="object.state == 'draft' and 'draft-class' or 'confirmed-class'"/>
* **t-att-href**: Dynamically set the href attribute in <a> tags.
* <a t-att-href="'/web?state=' + object.state">Link</a>

**9. Looping over Dictionaries:**

* **t-foreach on a Dictionary**:
* <t t-foreach="{'a': 1, 'b': 2}" t-as="key, value">
* <p>Key: <t t-esc="key"/> Value: <t t-esc="value"/></p>
* </t>

**10. Comments:**

* **<!-- comment -->**: Add comments within the QWeb template.
* <!-- This is a comment -->

**11. Dynamic URL Generation:**

* **t-att-href**: Dynamically generate URLs.
* <a t-att-href="'/shop/product/' + product.id">Product Link</a>

**12. Raw HTML:**

* **t-raw**: Used to insert raw HTML into the template, bypassing escaping mechanisms (use with care to avoid security issues).
* <div t-raw="object.custom\_html"/>

**13. Escaping Text:**

* **t-esc**: Escape HTML tags.
* <div t-esc="object.name"/>

**14. Multiple Attributes:**

* **t-att**: Add multiple attributes conditionally.
* <div t-att-class="condition and 'class1' or 'class2'"/>
* <div t-att-style="color: red;"/>

These are the main syntax elements in QWeb used to dynamically generate reports, pages, and templates in Odoo. Understanding these will allow you to customize and create powerful templates in Odoo.

**1. t-esc**

The **t-esc** directive in Odoo QWeb is used to **escape and render dynamic data** (variables) in a template. This is essential for displaying values such as fields, variables, or expressions within HTML elements while ensuring the data is properly sanitized.

✅ **What does t-esc do?**

* **Escaping**: It converts dynamic content (such as user input or field values) into a safe, HTML-encoded string to prevent cross-site scripting (XSS) attacks.
* **Rendering**: It directly injects the value of the variable into the HTML output.

If the data is **plain text**, it will display it directly. If the data is **HTML**, it will escape the tags and render them as plain text, ensuring security.

**Syntax**

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✅ **Where expression can be:**

* A field value (e.g., user.name).
* A variable (e.g., name).
* Any expression (e.g., user.name.upper()).

✅ **Where QWeb is Used?**

* **Backend views** (Form, List, Kanban).
* **Website views** (Frontend templates).
* **Reports (PDF, Excel, etc.)**.

the template inside a controller, action, or a specific view.