1.**Explain how the QWeb templating engine works in Odoo.**

QWeb is Odoo's XML-based templating engine, used for generating dynamic HTML/XML. Templates are defined with XML and use t- directives for logic and rendering.

**Directive**

**Conditionals**: Use t-if, t-elif, and t-else for rendering content based on conditions.

**Loops**: Use t-foreach to iterate over collections, with t-as to define the current item in the loop.

**Attributes**: Dynamically set attributes using:

t-att-name for static values.

t-attf-name for formatted values.

**Variables**: Use t-set to define and store variables, which can be reused within the template.

**Sub-Templates**: Use t-call to include and reuse other templates within a template.

**Template Inheritance**:

t-inherit-mode=”primary”: Replace or modify parts of a parent template.

t-inherit-mode=”extension”: Add to or enhance a parent template without replacing it.

**2. What are the key differences between inherit\_id and xpath in Odoo templates?**

**inherit\_id:** Used to inherit an existing template in its entirety to create a new template or modify its structure.

**xpath:** Used within an inherited template to locate and modify specific parts of the parent template. It defines where changes should be applied.

3. **How can you extend an existing theme in Odoo without modifying its core files?**

To extend an existing theme in Odoo without modifying its core files, follow these steps:

**Create a New Module:** Use Odoo’s scaffolding command to create a new custom module .

**Inherit and Extend Templates:** Use inherit\_id to inherit the existing theme’s templates and use xpath to specify where to insert or modify content within the inherited templates.

**Add Custom Assets:** Create custom CSS and JavaScript files for new custom module.Define these assets in your module’s manifest files.

**Place Custom Files:** Ensure that your custom CSS and JS files are located in the appropriate directories within your new module.

Custom\_module/static/src/css/file.css

Custom\_module/static/src/js/file.js

4.**Describe the role of assets in Odoo and how you can add custom CSS and JavaScript to a**

**theme.**

Assets in Odoo are bundles of CSS, JavaScript, and other static files that are essential for the proper functioning and styling of the user interface.

**Adding Custom CSS and JavaScript to a Theme**

**Create Your Custom Files:** Create your custom CSS and JavaScript files and place them in the appropriate directories within your module (usually under static/src/css for CSS and static/src/js for JavaScript).

**Define Assets in the Manifest File:**

For a frontend or website theme, include the files under web.assets\_frontend.

For a backend theme, include the files under web.assets\_backend.

5.**Debug the following code snippet.**

<template id="custom\_footer" inherit\_id="website.layout" name="Custom Footer">

<xpath expr="//footer" position="inside">

<div class="custom-footer">

<p>&copy; 2024 My Company</p>

</div>

</template>

1. **In this code snippet, the closing tag of the xpath is missing.**