How to create a module in Odoo

Create a new module in Odoo

Odoo is basically a web-based open source & modular-based framework/software.

Which includes multiple business solutions like "CRM", "POS", "E-Commerce", "ERP", "Manufacturing", "Inventory Management", "Billing & Accounting" and "Project Management".

Introduction to the Odoo module
Describe the importance of the module in Odoo

The Odoo module is a set of business logic that helps to enhance the existing functionality or add some new functionality in Odoo.

Where to create a new module in Odoo?

Odoo is a modular-based framework and all the core modules are present inside the Odoo Apps.

You can find the addons path inside the Odoo configuration file(If you are managing) and inside the configuration file you can find the "**addons_path**"

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or you can use the below command to find the Odoo addons path,

ps aux | grep odoo

Structure of Odoo Module

- Business Objects (Contains the Python Classes in Python Files)
- Object Views (Contains the business object for UI).
- Data Files
  - Views
  - Report
  - Demonstration Files
  - Data Files
  - Security FIles (For Access Rights & Rules)
  - Email/Qweb Templates
  - Many More.
- Static Web (Contains the module documentation files, CSS, JQuery, etc.

- Controllers (To manage backend/frontend actions).

Now, for example, we are creating a module whose technical name is "**webkul_elearning_module**"
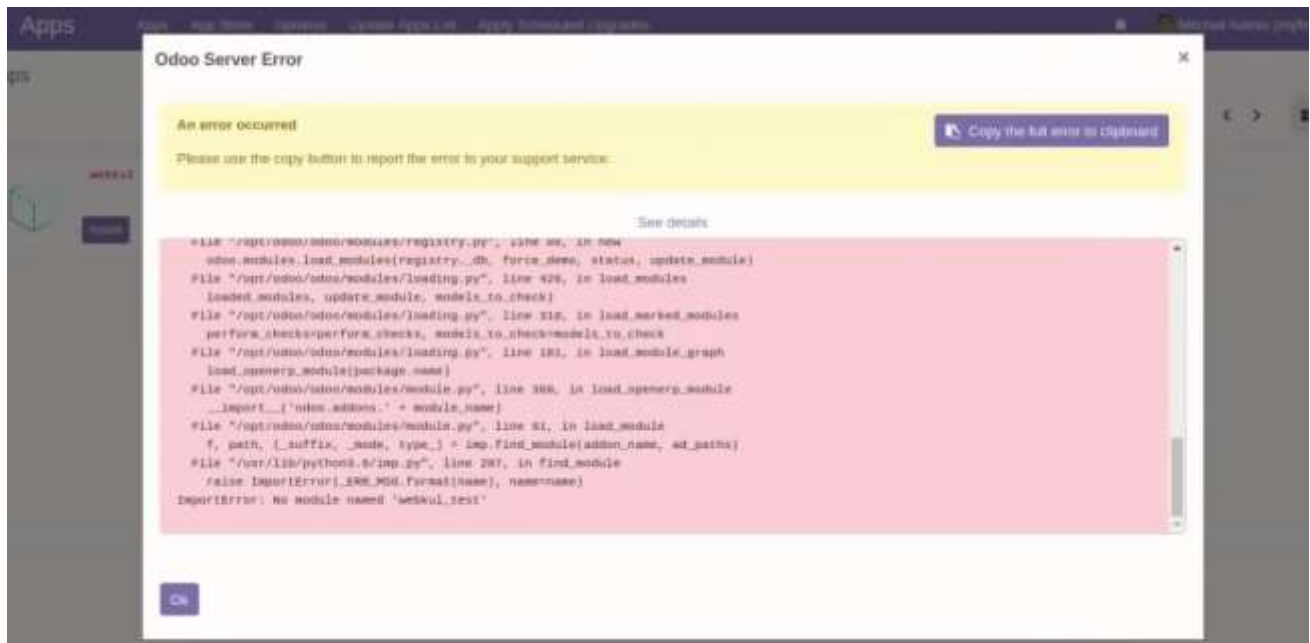
- __manifest__.py
- __init__.py

This file "**__manifest__.py**" helps to specify the metadata of the module and also helps to show the module inside the Odoo app list. All the metadata is associated inside the dictionary.

```
{
    'name': "Webkul Odoo E-Learning",
    'version': '1.0',
    'depends': ['base'],
    'author': "Author Name (Webkul)",
    'category': 'Category eg: Operations, Website, Sales etc.',
    'description': """
        Webkul Odoo E-Learning Module Description text
    """,
    'data': [
        'views/elearning_view.xml',
    ],
    'demo': [
        'demo/demo_elearning_data.xml',
    ],
}
```

- Name (Module Name)
- Description (Contains the module long description)
- Depends (Contains the list of dependent modules)
- And there are many more.

NOTE: __manifest__.py only helps to show the module inside Odoo app list but when you will try to install module then you will get "**ImportError: No module named 'webkul_elearning_module'** "

So in order to make your module installable, you also need to define the "**__init__.py**" file.

What is an __init__.py file?

'__init__.py' is a Python module descriptor file. It works like a Python module that runs from the start of the program.

Basically, it helps to import Python packages/files that need to be loaded at Odoo.

```python
# -*- coding: utf-8 -*-
##############################################################################
#
# Copyright (c) 2015-Present Webkul Software Pvt. Ltd. (<https://webkul.com/>)
# See LICENSE file for full copyright and licensing details.
# "License URL : <https://store.webkul.com/license.html/>"
#
##############################################################################

from . import models
```

These two files are enough to make modules installable in Odoo.

- Create a folder then set the technical name for the module.
  - Make sure the module **technical name** should not contain any spaces eg: "webkul_elearning_module".
- Then create an "**__init__.py**" file inside the folder,
  - You can define Python packages/files inside this file.
- Then create a "**__manifest__.py**" file,
  - You can define the module name(If not defined the name will be 'Unnamed') and some other metadata.
- Now login to your Odoo.
- Then open developer mode at your Odoo from Odoo "settings".
- Also, You can press the CTRL + K and then type debug after that press enter on "activate debug mode"(It will support the latest versions of the Odoo).

- Then go to the "Apps" menu.
- Inside the "Apps" menu you will see a button "Update App List".

- Click on that button.
- Then check the module using the module name.
- After that, you will find your module inside the app list.
- Then click on the "install" button in order to install your module at Odoo's end.

So this is how you can create a new module in Odoo and install modules at Odoo's end.