	Warsaw University of Technology	Advanced Internet Programming
Project 10 Content Managements Systems		Maciej Iwańczyk 311258
Date: 10.05.2024		Grade:

1. Introduction:

In today's project I have to describe the installation process and the usage of three Content Management Systems, Odoo, Processwire and Joomla.

2. Odoo

Description:

Odoo is a comprehensive open-source ERP (Enterprise Resource Planning) platform that integrates various business applications. It includes a website builder and CMS features, allowing users to create and manage website content without needing to code. Odoo is known for its modular approach, meaning users can add modules as needed to expand functionality.

Installation Process:

1. System Requirements:
    - OS: Linux (Debian/Ubuntu is recommended)
    - Python: Version 3.6 or later
    - PostgreSQL: Version 9.5 or later
    - Additional dependencies: Node.js, Wkhtmltopdf, and others
2. Installation Steps:
    - Step 1: Update Server

    ```
    sudo apt update && sudo apt upgrade -y
    ```

    - Step 2: Install Dependencies

    ```
    sudo apt install git python3-pip build-essential wget python3-dev libxml2-dev libxslt1-dev zlib1g-dev libsasl2-dev libldap2-dev libjpeg-dev libpq-dev libjpeg8-dev liblcms2-dev libblas-dev libatlas-base-dev
    sudo apt install npm
    sudo npm install -g less less-plugin-clean-css
    sudo apt install node-less
    ```

- Step 3: Install PostgreSQL

  ```
  sudo apt install postgresql
  sudo su - postgres
  createuser --createdb --username postgres --no-createrole --no-superuser
  --pwprompt odoo
  exit
  ```

- Step 4: Install Odoo

  ```
  sudo git clone https://github.com/odoo/odoo.git /odoo
  cd /odoo
  sudo pip3 install -r requirements.txt
  sudo npm install -g rtlcss
  sudo cp /odoo/debian/odoo.conf /etc/odoo.conf
  sudo nano /etc/odoo.conf
  # Modify the configuration file as needed
  sudo cp /odoo/debian/init /etc/init.d/odoo
  sudo chmod +x /etc/init.d/odoo
  sudo update-rc.d odoo defaults
  sudo service odoo start
  ```

- Step 5: Access Odoo

  - Open a web browser and go to http://your_domain_or_IP:8069
  - Create a new database and follow the setup instructions.

Purpose:

Odoo CMS aims to provide businesses with a seamless, integrated platform for managing various business processes, including website content management. It is particularly beneficial for companies looking to unify their web presence with their business operations, such as e-commerce, CRM, and inventory management.

Usage Instructions:
- Dashboard Navigation:
  - Log in to your Odoo account.
  - Navigate through the dashboard to access different modules like Website, Sales, Inventory, etc.
- Creating a Website:
  - Go to the "Website" module.
  - Use the drag-and-drop editor to add elements like text, images, and forms.
  - Customize themes and templates to fit your brand.
- Managing Content:
  - From the "Website" module, select "Pages" to create and edit web pages.
  - Use the editor to add content, adjust layouts, and incorporate dynamic elements like blog posts and product listings.

- SEO and Analytics:
  - Odoo provides tools for SEO optimization within the "Website" module.
  - Use the built-in analytics to track visitor behavior and website performance.

3. ProcessWire

Description:

ProcessWire is an open-source CMS and CMF (Content Management Framework) that emphasizes flexibility and customization. It provides a powerful API for developers while offering a user-friendly interface for content creators. It is known for its simplicity, speed, and ability to handle complex content structures.

Installation Process:

1. System Requirements:
   - Web Server: Apache, Nginx
   - PHP: Version 7.2 or later
   - Database: MySQL 5.5+ or MariaDB 5.5+
2. Installation Steps:
   - Step 1: Download ProcessWire

     ```
     wget https://github.com/processwire/processwire/archive/master.zip
     unzip master.zip
     mv processwire-master /var/www/html/processwire
     cd /var/www/html/processwire
     ```

   - Step 2: Set Up Web Server

     - Configure your web server to point to the ProcessWire directory.
     - Ensure mod_rewrite is enabled in Apache.

   - Step 3: Set Permissions

     ```
     sudo chown -R www-data:www-data /var/www/html/processwire
     sudo chmod -R 755 /var/www/html/processwire
     ```

   - Step 4: Install ProcessWire

     - Open a web browser and navigate to your ProcessWire URL (e.g., http://your_domain_or_IP/processwire).
     - Follow the on-screen instructions to complete the installation.

Purpose:

ProcessWire is designed to cater to users who need a robust and flexible CMS capable of handling complex data structures and relationships. It is suitable for developers seeking a system with a powerful API and for content creators who require an intuitive interface.

Usage Instructions:

- Dashboard Navigation:
  - Log in to the admin panel (http://your_domain_or_IP/processwire/admin).
  - The dashboard provides access to pages, fields, templates, and modules.
- Creating Pages:
  - Go to "Pages" and select "Add New".
  - Choose a template and fill in the required fields.
  - Save and publish the page.
- Managing Templates:
  - Templates define the structure and layout of your pages.
  - Go to "Setup" > "Templates" to create and edit templates.
  - Use the API to customize the functionality of each template.
- Adding Modules:
  - ProcessWire supports additional modules for extended functionality.
  - Go to "Modules" > "Install" to browse and install available modules.

4. Joomla

Description:

Joomla is a popular open-source CMS used for creating websites and online applications. It is known for its ease of use, flexibility, and extensive extension directory, which allows users to add various functionalities without coding.

Installation Process:

1. System Requirements:
   - Web Server: Apache, Nginx
   - PHP: Version 7.2 or later
   - Database: MySQL 5.5.3+, PostgreSQL 9.2+, or MariaDB 5.5+
2. Installation Steps:
   - Step 1: Download Joomla

     ```
     wget
     https://downloads.joomla.org/cms/joomla3/3-9-28/Joomla_3-9-28-Stable-Full_Package.zip
     unzip Joomla_3-9-28-Stable-Full_Package.zip -d /var/www/html/joomla
     ```

   - Step 2: Set Up Web Server

     - Configure your web server to point to the Joomla directory.
     - Ensure mod_rewrite is enabled in Apache.

- Step 3: Set Permissions

  ```
  sudo chown -R www-data:www-data /var/www/html/joomla
  sudo chmod -R 755 /var/www/html/joomla
  ```

- Step 4: Install Joomla
  - Open a web browser and navigate to your Joomla URL (e.g., http://your_domain_or_IP/joomla).
  - Follow the on-screen instructions to complete the installation.

Purpose:

Joomla aims to provide a user-friendly platform for creating and managing websites of various types, from personal blogs to complex corporate websites. It is ideal for users seeking a balance between flexibility and ease of use, with a large community and extensive documentation.

Usage Instructions:

- Dashboard Navigation:
  - Log in to the admin panel (http://your_domain_or_IP/joomla/administrator).
  - The control panel offers access to content management, menu creation, module management, and more.
- Creating Articles:
  - Go to "Content" > "Articles" > "Add New Article".
  - Use the editor to add content, images, and links.
  - Save and publish the article.
- Managing Menus:
  - Go to "Menus" > "Manage" > "Add New Menu".
  - Create menu items and link them to articles, categories, or external URLs.
- Installing Extensions:
  - Joomla's functionality can be extended with extensions.
  - Go to "Extensions" > "Manage" > "Install" to upload and install new extensions.
- Template Management:
  - Go to "Extensions" > "Templates" > "Styles" to manage and customize templates.
  - Use the template editor to adjust the design and layout of your site.

5. Conclusion

Odoo, ProcessWire, and Joomla each offer unique features and capabilities, catering to different user needs and preferences. Odoo is ideal for businesses seeking integrated ERP functionality, ProcessWire offers flexibility for developers with its robust API, and Joomla provides a user-friendly interface with extensive extension options for a wide range of websites. Each CMS requires specific installation steps and offers various tools for managing content, making them powerful solutions for creating and maintaining websites without the need for coding.