

Assessment Question

Task 1: Python Programming Basics

- 1) **Install Frappe Bench: Document each step you followed to install Frappe Bench on your system. Include any issues you encountered and how you resolved them.**

Answer:

Comprehensive Guide for Installing Frappe Bench with ERPNext

Prerequisites

- **Operating System:** Updated Ubuntu 22.04
- **User Privileges:** A user with sudo privileges
- **Software Requirements:**
 - Python 3.10+
 - Node.js 18
- **Hardware Requirements:**
 - 4GB RAM
 - 40GB Hard Disk

Installation Steps

1. Create a User

Create a new user with sudo privileges:

- `sudo adduser username && sudo usermod -aG sudo username`

Switch to the newly created user:

- `su - username`

2. Update and Upgrade System Packages

Ensure your system is up to date:

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

3. Install Git

Install Git to manage version control:

- `sudo apt-get install git -y`

4. Install Python and Dependencies

Install Python and essential development tools:

- `sudo apt-get install python3-dev python3.10-dev python3-setuptools python3-pip python3-distutils -y`

Set up a Python virtual environment:

- `sudo apt-get install python3.10-venv -y`

5. Install MariaDB

Install MariaDB database server and client:

- `sudo apt-get install software-properties-common`
- `sudo apt install mariadb-server mariadb-client -y`

Secure the installation:

- `sudo mysql_secure_installation`

Follow the prompts during the installation:

- Press ENTER for the current root password.
- Confirm options to enable unix_socket authentication, change the root password, and remove unnecessary settings, disallow root login remotely, remove test db and its access and reload privilege tables.

Modify MariaDB configuration:

- `sudo nano /etc/mysql/mariadb.conf.d/50-server.cnf`

Add the following lines:

[mysqld]

`character-set-client-handshake = FALSE`

`character-set-server = utf8mb4`

`collation-server = utf8mb4_unicode_ci`

[mysql]

`default-character-set = utf8mb4`

Restart MariaDB:

`sudo service mysql restart`

6. Install Redis

Install Redis as the caching server:

- `sudo apt-get install redis-server -y`

7. Install Node.js and Yarn

Install nvm to manage Node.js versions:

- `curl https://raw.githubusercontent.com/creationix/nvm/master/install.sh | bash`
- `source ~/.profile`
- `export NVM_DIR="$HOME/.nvm"`
- `[-s "$NVM_DIR/nvm.sh"] && \ . "$NVM_DIR/nvm.sh"`
- `[-s "$NVM_DIR/bash_completion"] && \ . "$NVM_DIR/bash_completion"`

Install Node.js version 18:

- `nvm install 18`

Install Yarn globally:

- `sudo apt-get install npm -y`
- `sudo npm install -g yarn`

8. Install wkhtmltopdf

Install the library required for PDF generation:

- `sudo apt-get install xvfb libfontconfig wkhtmltopdf -y`

9. Install Frappe Bench

Install the Frappe Bench CLI:

- `sudo -H pip3 install frappe-bench`

Initialize the bench:

- `bench init frappe-bench --frappe-path https://github.com/jaydeep-sigzen/frappe.git -version version-15`

10. Get ERPNext App

Download the ERPNext app into your bench:

- `bench get-app erpnext --branch version-15`

11. Configure and Start Frappe Bench

Create a new site:

- `bench new-site sitename`

Install ERPNext on the new site:

- `bench --site sitename install-app erpnext`

Enable the scheduler for the site:

- `bench --site sitename enable-scheduler`

Start the bench:

- `bench start`

Common Issues and Resolutions

Issue: "Node.js not found"

- **Cause:** nvm installation might not have updated the environment variables.
- **Resolution:** Run `source ~/.profile` or restart the terminal.

Issue: "Bench command not found"

- **Cause:** Bench might not be installed correctly or is not in the PATH.
- **Resolution:** Reinstall Bench using pip3 and ensure it's accessible globally.

Issue: "NVM and Bash_completion command error"

- `[-s "$NVM_DIR/nvm.sh"] && \ . "$NVM_DIR/nvm.sh"`

Solution: `[-s "$NVM_DIR/nvm.sh"] && \ . "$NVM_DIR/nvm.sh"`

- `[-s "$NVM_DIR/bash_completion"] && \ . "$NVM_DIR/bash_completion"`

Solution: `[-s "$NVM_DIR/bash_completion"] && \ . "$NVM_DIR/bash_completion"`

Conclusion

Following these steps will successfully install and configure Frappe Bench with ERPNext. The documentation includes potential resolutions to common issues and is enhanced with terminal screenshots for clarity.

Screenshot of commands:

```
venv@DESKTOP-13A0002U:~$ history
1 sudo apt-get update && sudo apt upgrade -y
2 sudo apt-get install git -y
3 sudo apt-get install python3-dev python3.10-dev python3-setuptools python3-pip python3-distutils -y
4 sudo apt-get install python3.12-venv -y
5 sudo apt-get install python3.10-venv -y
6 sudo apt-get install software-properties-common
7 sudo apt install mariadb-server mariadb-client -y
8 sudo mysql_secure_installation
9 sudo nano /etc/mysql/mariadb.conf.d/50-server.cnf
10 sudo service mysql restart
11 sudo apt-get install redis-server -y
12 sudo apt install curl
13 curl https://raw.githubusercontent.com/creationix/nvm/master/install.sh | bash
14 source ~/.profile
15 export NVM_DIR="$HOME/.nvm"
16 [ -s "$NVM_DIR/nvm.sh" ] && \. "$NVM_DIR/nvm.sh"
17 [ -s "$NVM_DIR/nvm.sh" ] && \. "$NVM_DIR/nvm.sh"
18 [ -s "$NVM_DIR/bash_completion" ] && \. "$NVM_DIR/bash_completion"
19 [ -s "$NVM_DIR/bash_completion" ] && \. "$NVM_DIR/bash_completion"
20 nvm install 18
21 sudo apt-get install npm -y
22 sudo npm install -g yarn
23 yarn -v
24 sudo apt-get install xz-utils libfontconfig wkhtmltopdf -y
25 pwd
26 cd ..
27 ls
28 cd vedang
29 mkdir work
30 sudo -H pip3 install frappe-bench
31 bench init frappe-bench --frappe-path https://github.com/jaydeep-siggen/frappe.git --version version-15
32 bench get-app erpnext --branch version-15
33 bench list-sites
34 bench list-apps
35 source ~/.bashrc
36 bench list-sites
37 bench start
38 sudo supervisorctl restart all
39 sudo apt install supervisor
40 sudo service supervisorctl start
41 sudo service supervisor start
42 sudo supervisorctl restart all
43 bench list-sites
44 bench start
45 bench new-site newsite
46 bench -y
47 bench --version
48 ls
49 cd frappe-bench
50 bench new-site vedang
51 bench start
52 bench use vedang
53 bench start
54 sudo mysql -u root
55 sudo mysql -u vedang
56 sudo mysql -u root
57 bench use vedang
58 bench list-sites
59 bench start
60 mysql -p vedang
61 sudo mysql -u root
62 bench --help
63 bench new-app myapp
64 sudo supervisorctl restart all
65 bench list-apps
66 cd /mnt/d/frappe/frappe-bench
67 nano sites/common_site_config.json
68 ls
69 cd ..
70 rm -r frappe-bench
71 ls
72 bench init frappe-bench --frappe-path https://github.com/jaydeep-siggen/frappe.git --version version-15
73 cd frappe-bench
74 bench --version
75 bench new-site vedangsite
76 bench use vedangsite
77 bench --site vedangsite enable-scheduler
78 bench start
79 bench --site vedangsite enable-scheduler
80 ll
81 ls
82 cd frappe-bench
83 bench start
84 sudo supervisorctl restart all
85 sudo supervisorctl restart all
86 sudo service mariadb restart
87 bench start
88 mysql -u root -p
89 bench get-app erpnext --branch version-15
90 sudo supervisorctl restart all
91 sudo supervisorctl restart all
92 bench start
93 cd frappe-bench
94 sudo mysql -u root -p
95 bench start
96 sudo mysql -u root -p
97 sudo supervisorctl restart all
98 sudo service mariadb restart
99 bench start
100 sudo mysql -u root -p
101 bench start
102 sudo mysql -u root -p
103 bench start
104 bench restart
105 sudo supervisorctl restart all
106 bench migrate
107 bench new-site ultran
108 bench use ultran
109 bench --site ultran enable-scheduler
110 bench get-app erpnext --branch version-15
111 bench restart all
112 bench get-app erpnext --branch version-15
113 sudo supervisorctl restart all
114 bench restart all
115 bench get-app erpnext --branch version-15
116 sudo supervisorctl restart all
117 bench start
118 bench start
119 killall python
120 killall redis
121 bench start
122 cd
123 ls
124 cd frappe-bench
125 bench start
126 sudo service redis-server restart
127 bench start
128 bench stop
129 bench restart
130 sudo supervisorctl restart all
131 bench --help
132 bench stop
133 ps aux | grep frappe
134 bench stop
135 bench list-apps
136 mysql -u root -p
137 sudo mysql -u root -p
138 killall python
139 killall redis-server
140 bench start
141 bench drop-site vedangsite
142 bench add-site newsite
143 bench new-site newsite
144 bench use newsite
145 bench --site newsite enable-scheduler
146 bench start
147 bench list
148 bench list-apps
149 cd apps/ls
150 cd apps
151 ls
152 history
153 bench --site ultran install-app erpnext
154 bench --site ultran reinstall
155 bench --site ultran install-app erpnext
156 set +o
157 history
158 set +o history
159 history
160 expr --version
161 expr 1+2
162 expr 11*2
163 expr $1 + $2
164 expr 1 + 2
165 expr 1 + 2
166 expr 1 \ 2
167 expr 1 \ 2
168 expr 1 \ 2
169 exit
170 ls
171 cd frappe-bench
172 ls
173 cd apps
174 ls
175 bench start
176 history
177 ls
178 cd frappe-bench
179 ls
180 cd apps
181 ls
182 bench start
183 history
venv@DESKTOP-13A0002U:~$ ls
```