Rocket Chat React Native

REPORT

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BSE-7A

Report: Setting up Rocket Chat React Native with Vagrant and Ansible

Introduction
Rocket Chat React Native is a popular open-source mobile chat application built using the React Native framework. It provides a platform for real-time communication and collaboration, making it a versatile solution for organizations and individuals alike. This report outlines the steps to create a Vagrant and Ansible setup for deploying Rocket Chat React Native.

Step 1: Project Setup
- Create a new Git repository for your project, ensuring that it has a main branch.
- Initialize the repository and add a README file for documentation.

Step 2: Rocket Chat React Native Playbook

2.1 Create Rocket Chat React Native Playbook
- Within the **ansible** directory, create a playbook file specifically for Rocket Chat React Native.

```yaml
1    ---
2    - name: Setup Rocket Chat React Native Application
3      hosts: rocket-chat-react-native-servers
4      tasks:
5        - name: Install Node.js
6          apt:
7            name: nodejs
8            state: present
9
10       - name: Install npm packages
11         npm:
12           name: "{{ item }}"
13         with_items:
14           - react-native-cli
15           - other_required_packages
16
17       - name: Clone Rocket Chat React Native repository
18         git:
19           repo: https://github.com/rocket-chat/rocket-chat-react-native.git
20           dest: /opt/rocket-chat-react-native
21           update: yes
22
23       - name: Configure Rocket Chat React Native
24         template:
25           src: config.template.js
26           dest: /opt/rocket-chat-react-native/config.js
27
28       - name: Build and deploy Rocket Chat React Native
29         command: react-native build && react-native deploy
```

2.2 Define Hosts in Inventory
- Update the Ansible inventory file to specify the hosts where Rocket Chat React Native should be deployed.

```
1    [rocket-chat-react-native-servers]
2    server1 ansible_ssh_host=rocket-chat-server1-ip ansible_ssh_user=your-ssh-user
3    server2 ansible_ssh_host=rocket-chat-server2-ip ansible_ssh_user=your-ssh-user
4
```

Step 3: Vagrant Configuration
3.1 Create Vagrantfile

- Within the **vagrant** directory, create a Vagrantfile to define the virtual machine (VM) configuration for the project.

```
1   Vagrant.configure("2") do |config|
2     config.vm.box = "ubuntu/bionic64"
3     config.vm.network "private_network", type: "dhcp"
4     config.vm.provision "ansible" do |ansible|
5       ansible.playbook = "../ansible/main.yml"
6       ansible.inventory_path = "../ansible/inventory"
7     end
8   end
```

Step 4: Main Ansible Playbook

4.1 Main Playbook (main.yml)

- In the **ansible** directory, create a main.yml playbook that orchestrates the execution of individual application playbooks, including Rocket Chat React Native.

```
1   ---
2   - name: Main playbook for the entire project
3     hosts: all
4     tasks:
5       - import_playbook: application1_playbook.yml
6       - import_playbook: application2_playbook.yml
7       - import_playbook: application3_playbook.yml
```