

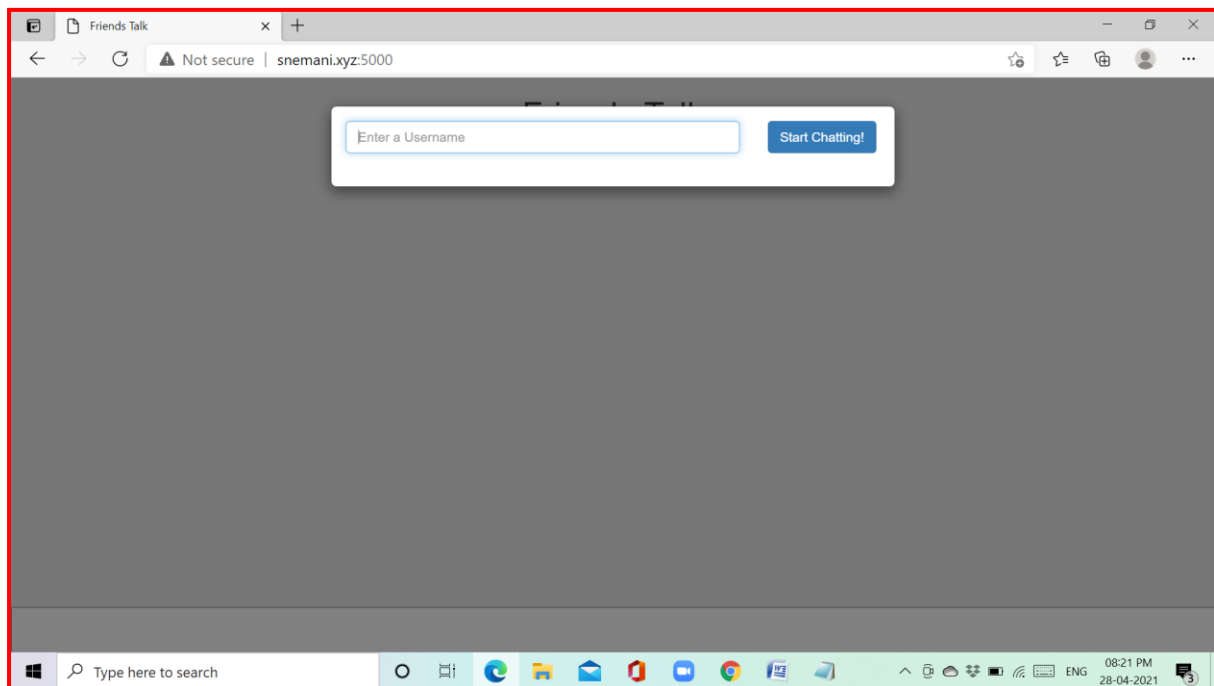
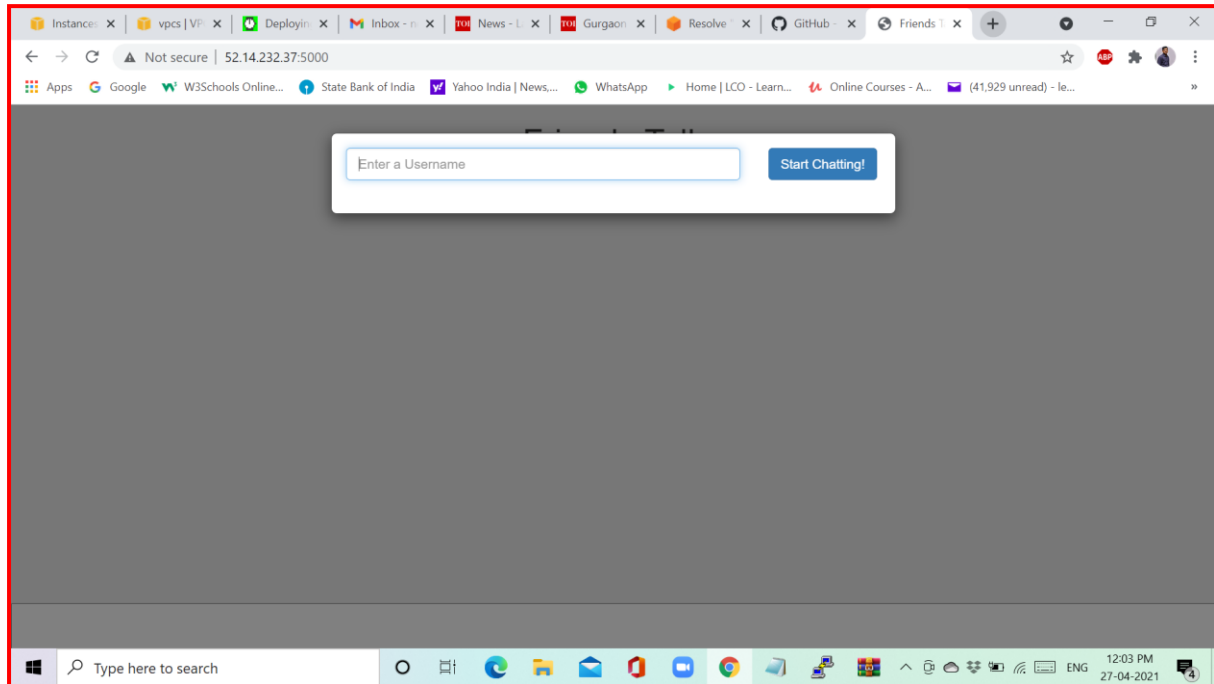
AWS Project: -3

Project Date: – 27.04.2021

Prepared by: – Sarveswara Sarma Nemani

Q:- Create a **Chatting app** in Public server and host the server with Domain

Sol:



us-east-2.console.aws.amazon.com/ec2/v2/home?region=us-east-2#Instances:search=i-0d9d8e0fe7a6b4752;sort=monitoring

Launch Instance Connect Actions

search: i-0d9d8e0fe7a6b4752 Add filter

Name	Instance ID	Instance Type	Availability Zone	Instance State	Status Checks	Alarm Status	Public DNS (IPv4)	IPv4 Public IP	IPv6 IPs	Key Name	Monitoring	Launch
	i-0d9d8e0fe7a6b4752	t2.micro	us-east-2b	running	2/2 checks	None	ec2-52-14-232-37.us-e...	52.14.232.37	-	kp-ohio	disabled	April 27

Instance: i-0d9d8e0fe7a6b4752 Public DNS: ec2-52-14-232-37.us-east-2.compute.amazonaws.com

Description Status Checks Monitoring Tags

Instance ID: i-0d9d8e0fe7a6b4752
Instance state: running
Instance type: t2.micro
Finding: Opt-in to AWS Compute Optimizer for recommendations. [Learn more](#)
Private DNS: ip-172-31-22-179.us-east-2.compute.internal
Private IPs: 172.31.22.179
Secondary private IPs: -
VPC ID: vpc-88ad25e3
Platform: Amazon Linux
Platform details: Linux/UNIX
Usage operation: RunInstances
Source/dest check: True
T2/T3 Unlimited: Disabled
EBS-optimized: False
Root device type: ebs
Root device: /dev/xvda
Block devices: /dev/xvda
Elastic Graphics ID: -
Elastic Inference accelerator ID: -
Capacity Reservation: -

Public DNS (IPv4): ec2-52-14-232-37.us-east-2.compute.amazonaws.com
IPv4 Public IP: 52.14.232.37
IPv6 IPs: -
Elastic IPs: -
Availability zone: us-east-2b
Security groups: NODEJS-SG. [view inbound rules](#). [view outbound rules](#)
Scheduled events: No scheduled events
AMI ID: amzn2-ami-hvm-2.0.20210326.0-x86_64-gp2 (ami-05d72852800cb29e)
Subnet ID: subnet-85ea485
Network interfaces: enb0
IAM role: -
Key pair name: kp-ohio
Owner: 833093811962
Launch time: April 27, 2021 at 11:53:34 AM UTC+5:30 (less than one hour)
Termination protection: False
Lifecycle: normal
Monitoring: basic
Alarm status: None
Kernel ID: -
RAM disk ID: -

us-east-2.console.aws.amazon.com/ec2/v2/home?region=us-east-2#SecurityGroups:groupid=sg-07e1275e96134ac8f;sort=groupid

Create Security Group Actions

Group ID: sg-07e1275e96134ac8f Add filter

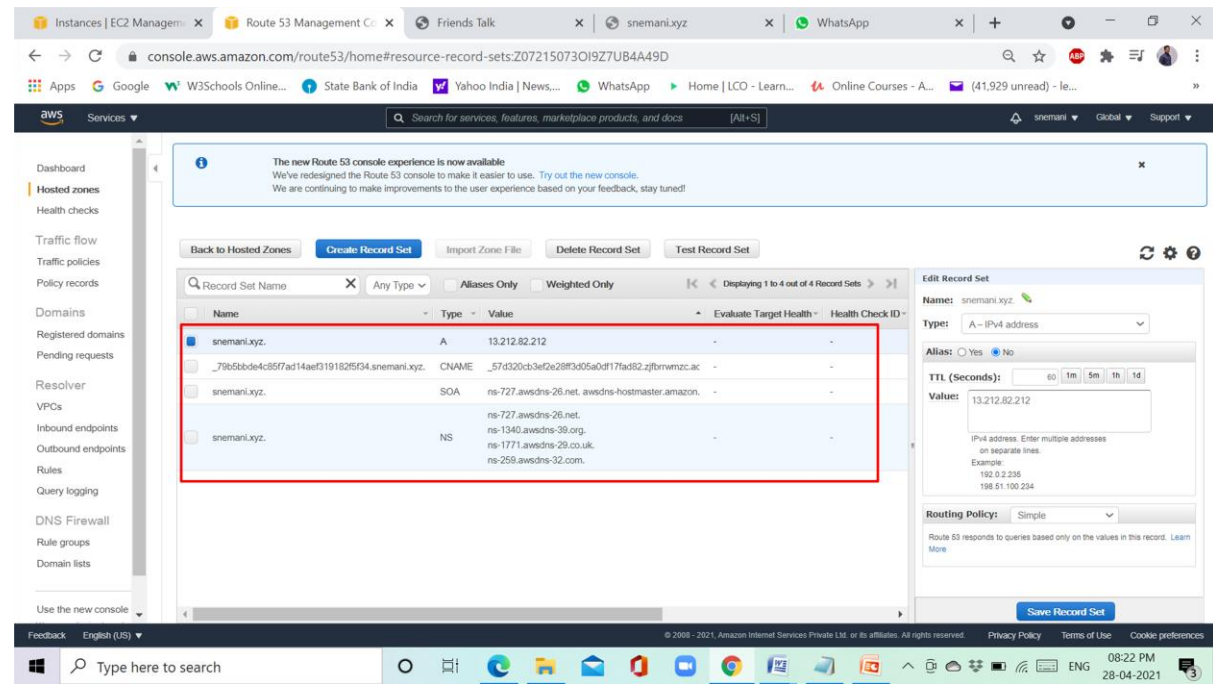
Name	Group ID	Group Name	VPC ID	Owner	Description
	sg-07e1275e96134ac8f	NODEJS-SG	vpc-88ad25e3	833093811962	launch-wizard-1 created 202...

Security Group: sg-07e1275e96134ac8f

Description Inbound Outbound Tags

Edit

Type	Protocol	Port Range	Source	Description
HTTP	TCP	80	0.0.0.0/0	
SSH	TCP	22	0.0.0.0/0	
Custom TCP Rule	TCP	5000	0.0.0.0/0	
HTTPS	TCP	443	0.0.0.0/0	



Terminal Logs:-

login as: ec2-user

Authenticating with public key "imported-openssh-key"

```

_ | _ | _ )
_ | ( / Amazon Linux 2 AMI
_ | \ _ | _ |

```

<https://aws.amazon.com/amazon-linux-2/>

```
[ec2-user@ip-172-31-22-179 ~]$ sudo -i
```

```
[root@ip-172-31-22-179 ~]# curl -o- https://raw.githubusercontent.com/creationix/nvm/v0.33.11/install.sh | bash
```

```

% Total    % Received % Xferd Average Speed   Time    Time     Time  Current
           Dload  Upload  Total   Spent    Left     Speed

```

```
100 12819 100 12819  0    0 90914    0 --:--:-- --:--:-- --:--:-- 90914
```

=> Downloading nvm as script to '/root/.nvm'

=> Appending nvm source string to /root/.bashrc

=> Appending bash_completion source string to /root/.bashrc

=> Close and reopen your terminal to start using nvm or run the following to use it now:

```
export NVM_DIR="$HOME/.nvm"
```

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

```
[ -s "$NVM_DIR/bash_completion" ] && \. "$NVM_DIR/bash_completion" # This loads nvm bash_completion
```

```
[root@ip-172-31-22-179 ~]# . ~/.nvm/nvm.sh
```

```
[root@ip-172-31-22-179 ~]# nvm install 8.10
```

```

Downloading and installing node v8.10.0...
Downloading https://nodejs.org/dist/v8.10.0/node-v8.10.0-linux-x64.tar.xz...
##### 100.0%
Computing checksum with sha256sum
Checksums matched!
Now using node v8.10.0 (npm v5.6.0)
Creating default alias: default -> 8.10 (-> v8.10.0)
[root@ip-172-31-22-179 ~]# node -v
v8.10.0
[root@ip-172-31-22-179 ~]# sudo yum install -y git
Loaded plugins: extras_suggestions, langpacks, priorities, update-motd
amzn2-core                                | 3.7 kB  00:00
amzn2extra-docker                         | 3.0 kB  00:00
(1/5): amzn2-core/2/x86_64/group_gz      | 2.5 kB  00:00
(2/5): amzn2-core/2/x86_64/updateinfo    | 367 kB  00:00
(3/5): amzn2extra-docker/2/x86_64/primary_db | 76 kB  00:00
(4/5): amzn2extra-docker/2/x86_64/updateinfo | 76 B  00:00
(5/5): amzn2-core/2/x86_64/primary_db    | 52 MB  00:01
Resolving Dependencies
--> Running transaction check
---> Package git.x86_64 0:2.23.4-1.amzn2.0.1 will be installed
--> Processing Dependency: perl-Git = 2.23.4-1.amzn2.0.1 for package: git-2.23.4-1.amzn2.0.1.x86_64
--> Processing Dependency: git-core-doc = 2.23.4-1.amzn2.0.1 for package: git-2.23.4-1.amzn2.0.1.x86_64
--> Processing Dependency: git-core = 2.23.4-1.amzn2.0.1 for package: git-2.23.4-1.amzn2.0.1.x86_64
--> Processing Dependency: emacs-filesystem >= 25.3 for package: git-2.23.4-1.amzn2.0.1.x86_64
--> Processing Dependency: perl(Term::ReadKey) for package: git-2.23.4-1.amzn2.0.1.x86_64
--> Processing Dependency: perl(Git::l18N) for package: git-2.23.4-1.amzn2.0.1.x86_64
--> Processing Dependency: perl(Git) for package: git-2.23.4-1.amzn2.0.1.x86_64
--> Processing Dependency: libsecret-1.so.0()(64bit) for package: git-2.23.4-1.amzn2.0.1.x86_64
--> Running transaction check
---> Package emacs-filesystem.noarch 1:25.3-3.amzn2.0.2 will be installed
---> Package git-core.x86_64 0:2.23.4-1.amzn2.0.1 will be installed
---> Package git-core-doc.noarch 0:2.23.4-1.amzn2.0.1 will be installed
---> Package libsecret.x86_64 0:0.18.5-2.amzn2.0.2 will be installed
---> Package perl-Git.noarch 0:2.23.4-1.amzn2.0.1 will be installed
--> Processing Dependency: perl(Error) for package: perl-Git-2.23.4-1.amzn2.0.1.noarch
---> Package perl-TermReadKey.x86_64 0:2.30-20.amzn2.0.2 will be installed
--> Running transaction check
---> Package perl-Error.noarch 1:0.17020-2.amzn2 will be installed

```

--> Finished Dependency Resolution

Dependencies Resolved

Package	Arch	Version	Repository	Size
Installing:				
git	x86_64	2.23.4-1.amzn2.0.1	amzn2-core	135 k
Installing for dependencies:				
emacs-filesystem	noarch	1:25.3-3.amzn2.0.2	amzn2-core	64 k
git-core	x86_64	2.23.4-1.amzn2.0.1	amzn2-core	5.0 M
git-core-doc	noarch	2.23.4-1.amzn2.0.1	amzn2-core	2.4 M
libsecret	x86_64	0.18.5-2.amzn2.0.2	amzn2-core	153 k
perl-Error	noarch	1:0.17020-2.amzn2	amzn2-core	32 k
perl-Git	noarch	2.23.4-1.amzn2.0.1	amzn2-core	47 k
perl-TermReadKey	x86_64	2.30-20.amzn2.0.2	amzn2-core	31 k

Transaction Summary

Install 1 Package (+7 Dependent packages)

Total download size: 7.9 M

Installed size: 41 M

Downloading packages:

(1/8): emacs-filesystem-25.3-3.amzn2.0.2.noarch.rpm | 64 kB 00:00
(2/8): git-2.23.4-1.amzn2.0.1.x86_64.rpm | 135 kB 00:00
(3/8): git-core-doc-2.23.4-1.amzn2.0.1.noarch.rpm | 2.4 MB 00:00
(4/8): git-core-2.23.4-1.amzn2.0.1.x86_64.rpm | 5.0 MB 00:00
(5/8): libsecret-0.18.5-2.amzn2.0.2.x86_64.rpm | 153 kB 00:00
(6/8): perl-Error-0.17020-2.amzn2.noarch.rpm | 32 kB 00:00
(7/8): perl-Git-2.23.4-1.amzn2.0.1.noarch.rpm | 47 kB 00:00
(8/8): perl-TermReadKey-2.30-20.amzn2.0.2.x86_64.rpm | 31 kB 00:00

Total 32 MB/s | 7.9 MB 00:00

Running transaction check

Running transaction test

Transaction test succeeded

Running transaction

Installing : git-core-2.23.4-1.amzn2.0.1.x86_64	1/8
Installing : git-core-doc-2.23.4-1.amzn2.0.1.noarch	2/8
Installing : 1:emacs-filesystem-25.3-3.amzn2.0.2.noarch	3/8
Installing : 1:perl-Error-0.17020-2.amzn2.noarch	4/8
Installing : perl-TermReadKey-2.30-20.amzn2.0.2.x86_64	5/8
Installing : libsecret-0.18.5-2.amzn2.0.2.x86_64	6/8
Installing : perl-Git-2.23.4-1.amzn2.0.1.noarch	7/8
Installing : git-2.23.4-1.amzn2.0.1.x86_64	8/8

Verifying : libsecret-0.18.5-2.amzn2.0.2.x86_64	1/8
Verifying : perl-TermReadKey-2.30-20.amzn2.0.2.x86_64	2/8
Verifying : git-2.23.4-1.amzn2.0.1.x86_64	3/8
Verifying : git-core-doc-2.23.4-1.amzn2.0.1.noarch	4/8
Verifying : perl-Git-2.23.4-1.amzn2.0.1.noarch	5/8
Verifying : git-core-2.23.4-1.amzn2.0.1.x86_64	6/8
Verifying : 1:perl-Error-0.17020-2.amzn2.noarch	7/8
Verifying : 1:emacs-filesystem-25.3-3.amzn2.0.2.noarch	8/8

Installed:

git.x86_64 0:2.23.4-1.amzn2.0.1

Dependency Installed:

emacs-filesystem.noarch 1:25.3-3.amzn2.0.2
git-core.x86_64 0:2.23.4-1.amzn2.0.1
git-core-doc.noarch 0:2.23.4-1.amzn2.0.1
libsecret.x86_64 0:0.18.5-2.amzn2.0.2
perl-Error.noarch 1:0.17020-2.amzn2
perl-Git.noarch 0:2.23.4-1.amzn2.0.1
perl-TermReadKey.x86_64 0:2.30-20.amzn2.0.2

Complete!

[root@ip-172-31-22-179 ~]# https://github.com/abkunal/Chat-App-using-Socket.io.git

-bash: https://github.com/abkunal/Chat-App-using-Socket.io.git: No such file or directory

[root@ip-172-31-22-179 ~]# sudo yum install -y git

Loaded plugins: extras_suggestions, langpacks, priorities, update-motd

Package git-2.23.4-1.amzn2.0.1.x86_64 already installed and latest version

Nothing to do

[root@ip-172-31-22-179 ~]# git clone https://github.com/abkunal/Chat-App-using-Socket.io.git

Cloning into 'Chat-App-using-Socket.io'...

remote: Enumerating objects: 43, done.

remote: Total 43 (delta 0), reused 0 (delta 0), pack-reused 43

Unpacking objects: 100% (43/43), done.

[root@ip-172-31-22-179 ~]# cd Chat-App-using-Socket.io

[root@ip-172-31-22-179 Chat-App-using-Socket.io]# npm install

npm WARN deprecated debug@4.1.1: Debug versions >=3.2.0 <3.2.7 || >=4 <4.3.1 have a low-severity ReDos regression when used in a Node.js environment. It is recommended you upgrade to 3.2.7 or 4.3.1. (https://github.com/visionmedia/debug/issues/797)

npm notice created a lockfile as package-lock.json. You should commit this file.

npm WARN ws@7.4.5 requires a peer of bufferutil@^4.0.1 but none is installed. You must install peer dependencies yourself.

npm WARN ws@7.4.5 requires a peer of utf-8-validate@^5.0.2 but none is installed. You must install peer dependencies yourself.

Start and Daemonize any application:

```
$ pm2 start app.js
```

Load Balance 4 instances of api.js:

```
$ pm2 start api.js -i 4
```

Monitor in production:

```
$ pm2 monitor
```

Make pm2 auto-boot at server restart:

```
$ pm2 startup
```

To go further checkout:

<http://pm2.io/>

```
[PM2] Spawning PM2 daemon with pm2_home=/root/.pm2
```

```
[PM2] PM2 Successfully daemonized
```

```
[PM2] Starting /root/Chat-App-using-Socket.io/app.js in fork_mode (1 instance)
```

```
[PM2] Done.
```

id	name	mode	⌵	status	cpu	memory
0	app	fork	0	online	0%	26.4mb

```
[root@ip-172-31-22-179 Chat-App-using-Socket.io]# pm2 save
```

```
[PM2] Saving current process list...
```

```
[PM2] Successfully saved in /root/.pm2/dump.pm2
```

```
[root@ip-172-31-22-179 Chat-App-using-Socket.io]# pm2 startup
```

```
[PM2] Init System found: systemd
```

```
Platform systemd
```

```
Template
```

```
[Unit]
```

```
Description=PM2 process manager
```

```
Documentation=https://pm2.keymetrics.io/
```

```
After=network.target
```

```
[Service]
```

```
Type=forking
```

```
User=root
```

```
LimitNOFILE=infinity
```

```
LimitNPROC=infinity
```

```
LimitCORE=infinity
```



```
Environment=PATH=/root/.nvm/versions/node/v8.10.0/bin:/usr/local/sbin:/sbin:/bin
:/usr/sbin:/usr/bin:/root/bin:/bin:/usr/local/sbin:/usr/local/bin:/usr/sbin:/usr
/bin
Environment=PM2_HOME=/root/.pm2
PIDFile=/root/.pm2/pm2.pid
Restart=on-failure
```

```
ExecStart=/root/.nvm/versions/node/v8.10.0/lib/node_modules/pm2/bin/pm2 resurrect
ExecReload=/root/.nvm/versions/node/v8.10.0/lib/node_modules/pm2/bin/pm2 reload
all
ExecStop=/root/.nvm/versions/node/v8.10.0/lib/node_modules/pm2/bin/pm2 kill
```

```
[Install]
WantedBy=multi-user.target
```

```
Target path
/etc/systemd/system/pm2-root.service
```

```
Command list
```

```
[ 'systemctl enable pm2-root' ]
```

```
[PM2] Writing init configuration in /etc/systemd/system/pm2-root.service
```

```
[PM2] Making script booting at startup...
```

```
[PM2] [-] Executing: systemctl enable pm2-root...
```

```
Created symlink from /etc/systemd/system/multi-user.target.wants/pm2-root.servic
e to /etc/systemd/system/pm2-root.service.
```

```
[PM2] [v] Command successfully executed.
```

```
+-----+
```

```
[PM2] Freeze a process list on reboot via:
```

```
$ pm2 save
```

```
[PM2] Remove init script via:
```

```
$ pm2 unstartup systemd
```

```
[root@ip-172-31-22-179 Chat-App-using-Socket.io]# ^C
```

```
[root@ip-172-31-22-179 Chat-App-using-Socket.io]# history
```

```
1 curl -o- https://raw.githubusercontent.com/creationix/nvm/v0.33.11/install.sh | bash
2 . ~/.nvm/nvm.sh
3 nvm install 8.10
4 node -v
5 sudo yum install -y git
6 https://github.com/abkunal/Chat-App-using-Socket.io.git
7 sudo yum install -y git
8 git clone https://github.com/abkunal/Chat-App-using-Socket.io.git
9 cd Chat-App-using-Socket.io
10 npm install
11 npm install -g pm2
12 pm2 start app.js
```

- 13 pm2 save
- 14 pm2 startup
- 15 history

[root@ip-172-31-22-179 Chat-App-using-Socket.io]#