Step 1: Switching to the root user and then changing to the root directory sudo su cd /

Step 2: Install NodeJS and NPM using nvm:

- Install node version manager (nvm) using this command :
 <u>curl -o- https://raw.githubusercontent.com/nvm-sh/nvm/v0.34.0/install.sh | bash</u>
- 2) Activate nvm:

. ~/.nvm/nvm.sh

3) Use nvm to install the latest version of Node.js: **nvm install node**

Step 3: Clone repository from GitHub:

- Clone the code repository from Github: git clone https://github.com/prateekhiremat/AllFundooNotes.git
- Get inside the directory and Install Packages:
 <u>cd /AllFundooNotes/fundooNotesProject</u>
 npm install

Step 4: Install MongoDB:

- 1) Install the prerequisite packages needed during the installation: <u>sudo apt install software-properties-common gnupg apt-transport-https</u> <u>ca-certificates -y</u>
- 2) Import the public key for MongoDB:

<u>curl -fsSL https://pgp.mongodb.com/server-7.0.asc | sudo gpg -o /usr/share/keyrings/mongodb-server-7.0.gpg --dearmor</u>

sudo apt update

- 3) Install the mongodb-org meta-package that provides MongoDB: <u>sudo apt install mongodb-org -y</u>
- 4) To start the MongoDB service, execute the command: sudo systemctl start mongod
- 5) Once again, confirm if the service is running: sudo systemctl status mongod
- 6) Enable MongoDB to start:

sudo systemctl enable mongod

Step 5: Install Redis

1) To install Redis:

sudo apt install redis-server -y

2) Configuration change in the default configuration file:

sudo nano /etc/redis/redis.conf

Changes: supervised no --> supervised systemd

3) Start the Redis server:

sudo systemctl restart redis

4) Redis service status:

sudo systemctl status redis

5) Enable Redis to start:

sudo systemctl enable --now redis-server

Step 6: Install Kafka(optional):

1) Install Java:

sudo apt install default-jdk

2) Download Apache Kafka:

wget https://downloads.apache.org/kafka/3.7.0/kafka 2.13-3.7.0.tgz

3) Extract Kafka Archive:

tar -xzf kafka 2.13-3.7.0.tgz

4) Move Kafka Files:

sudo mv kafka_2.13-3.1.0 /opt/kafka

5) Edit .bashrc:

nano ~/.bashrc

6) Set Kafka Path: Add the following line to the end of the file:

export PATH=/opt/kafka/bin:\$PATH

7) Reload .bashrc:

source ~/.bashrc

8) Changes has to be made in: nano /opt/kafka/kafka-server-start.sh

if ["x\$KAFKA_HEAP_OPTS" = "x"]; then

export KAFKA_HEAP_OPTS="-Xmx1G -Xms1G"

```
fi
change it to
if [ "x$KAFKA_HEAP_OPTS" = "x" ]; then
export KAFKA_HEAP_OPTS="-Xmx256M -Xms128M"
fi
```

9) Start ZooKeeper:

bin/zookeeper-server-start.sh config/zookeeper.properties

10) Start Kafka Server:

cd /opt/kafka

bin/kafka-server-start.sh config/server.properties

Step 7: Run manually:

1) Start your application

cd /AllFundooNotes/fundooNotesProject npm run dev

Step 8: To achieve the Daemon Process:

1) Create .service file in cd etc/systemd/system/

nano fundoo.service

(write):

[Unit]

Description=Note Service

After=network.target

[Service]

<u>User=ubuntu</u>

Group=ubuntu

ExecStart=/bin/bash -c "cd /AllFundooNotes/fundooNotesProject/ && npm

run dev"

WorkingDirectory=/AllFundooNotes/fundooNotesProject

[Install]

WantedBy=multi-user.target

2. Execute the commands:

sudo systemctl daemon-reload

sudo systemctl enable fundoo.service

sudo systemctl start fundoo.service

sudo systemctl status fundoo.service