# Kafka Workflow: Installing Kafka on Ubuntu 22.04

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**The purpose of this Standard Operating Procedure (SOP) is to provide:** a step by step procedure to install Kafka on our Kubeflow cluster. Kafka will be used to stream data to our models continuously.

**Procedure:**

| Steps | Description |
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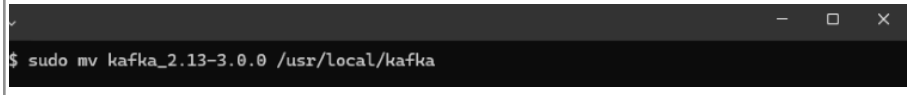
| 1. | **Start from the terminal of the ubuntu server.** |
| 2. | **Download Kafka using the following command:**<br>***wget*** *https://archive.apache.org/dist/kafka/3.0.0/kafka_2.13-3.0.0.tgz*<br>  |
| 3. | **Extract the downloaded archive file and place them under /usr/local/kafka directory. Using the following commands:**<br>**tar xzf kafka_2.13-3.0.0.tgz**<br>  <br>**sudo mv kafka_2.13-3.0.0 /usr/local/kafka**<br>  |
| 4. | **Create a systemd unit file for Zookeeper, using the following command:** |

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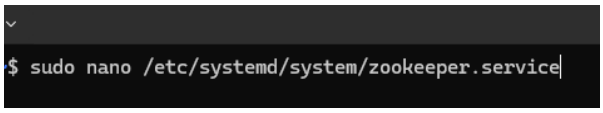
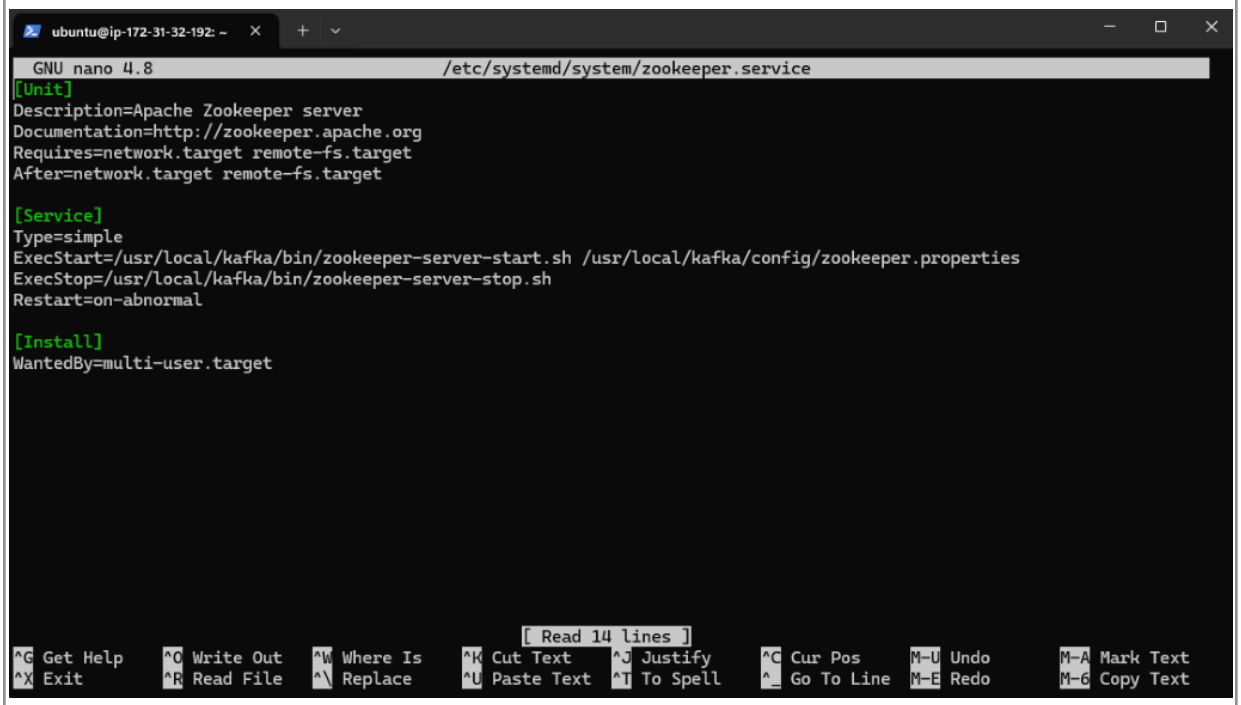
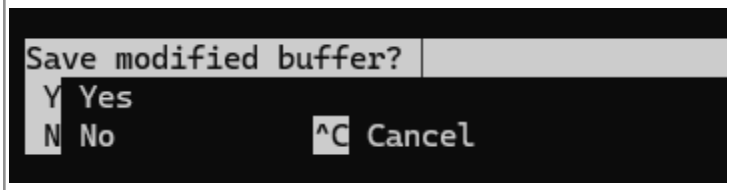
| | `sudo nano /etc/systemd/system/zookeeper.service`<br><br>  |
| 5. | **Add the following content to the systemd unit file:**<br><br>  |
| 6. | **Save the file by pressing `ctrl + x`. Once prompted for y or n to save, press `y` for yes, to save and exit.**<br><br>  |
| 7. | **Reload the systemd daemon to apply new changes, using the following command:**<br><br>`sudo systemctl daemon-reload` |

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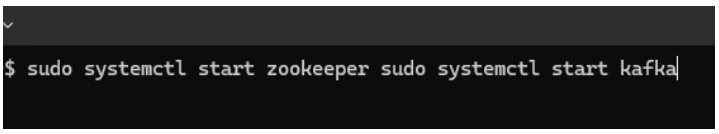
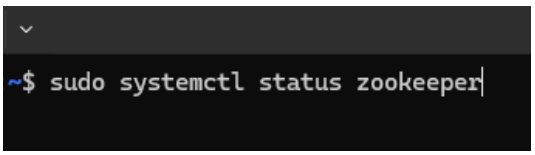
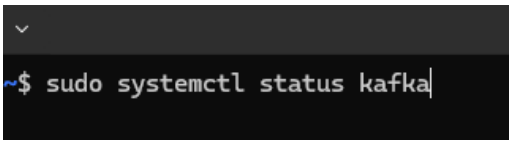
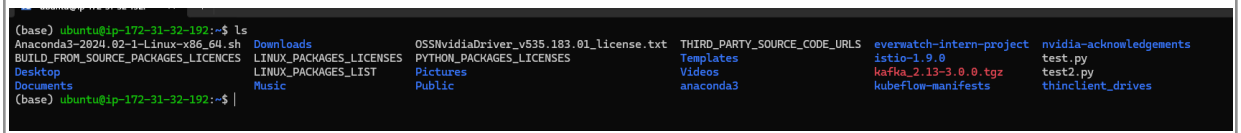
| |  <br>**This will reload all the systemd files in the system environment.** |
| 8. | **Use the systemctl commands to start a single-node ZooKeeper instance:**<br>`sudo systemctl start zookeeper`<br>`sudo systemctl start kafka`<br>  |
| 9. | **Verify both of the services status, using the following commands:**<br>`sudo systemctl status zookeeper`<br>  <br>`sudo systemctl status kafka`<br>  |
| 10. | **Check that the kafka platform has been installed by running the ls command:**<br>  |
| 11. | **Install a broker :**<br>`cd /opt/kafka mkdir -p broker1 broker2 broker3 cp -r config broker1/config` |

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| | **Edit the `server.properties` file:**<br>`nano /opt/kafka/broker1/config/server.properties`<br><br>**Modify properties:**<br><br>**broker.id=1 listeners=PLAINTEXT://:9092 log.dirs=/opt/kafka/broker1/logs zookeeper.connect=localhost:2181** |