Dataflow

1. First Docker container generate logs .

2. Then Promtail continuously tails the log files and sends the log data to Loki .

3. Loki stores the log entries .

4. At last Grafana queries Loki for log data and displays it through dashboard .

1. **Install Grafana**

wget https://dl.grafana.com/enterprise/release/grafana-enterprise-10.2.3.linux-amd64.tar.gz

tar -zxvf grafana-enterprise-10.2.3.linux-amd64.tar.gz

2. **Install Loki and start Loki**

wget https://raw.githubusercontent.com/grafana/loki/v2.9.4/cmd/loki/loki-local-config.yaml -O loki-config.yaml

docker run --name loki -d -v $(pwd):/mnt/config -p 3100:3100 grafana/loki:2.9.4 -config.file=/mnt/config/loki-config.yaml

3. **Get Promtail config file**

wget https://raw.githubusercontent.com/grafana/loki/v2.9.4/clients/cmd/promtail/promtail-docker-config.yaml -O promtail-config.yaml

4. **Edit Promtail config file**

Add this under the **static configs** . This scrape the docker container logs .

```
- targets:
     - localhost
   labels:
    job: docker-logs
    __path__: /var/lib/docker/containers/*/*log
```

5. **Run Promtail using the Promtail config file .**

docker run --name promtail -d -v $(pwd):/mnt/config -v /var/lib/docker/containers:/var/lib/docker/containers --link loki grafana/promtail:2.9.4 -config.file=/mnt/config/promtail-config.yaml

6. **Access the metrics at port 3100**

http://localhost:3100/metrics

7. **Start grafana server**

cd grafana-v10.2.3/bin/

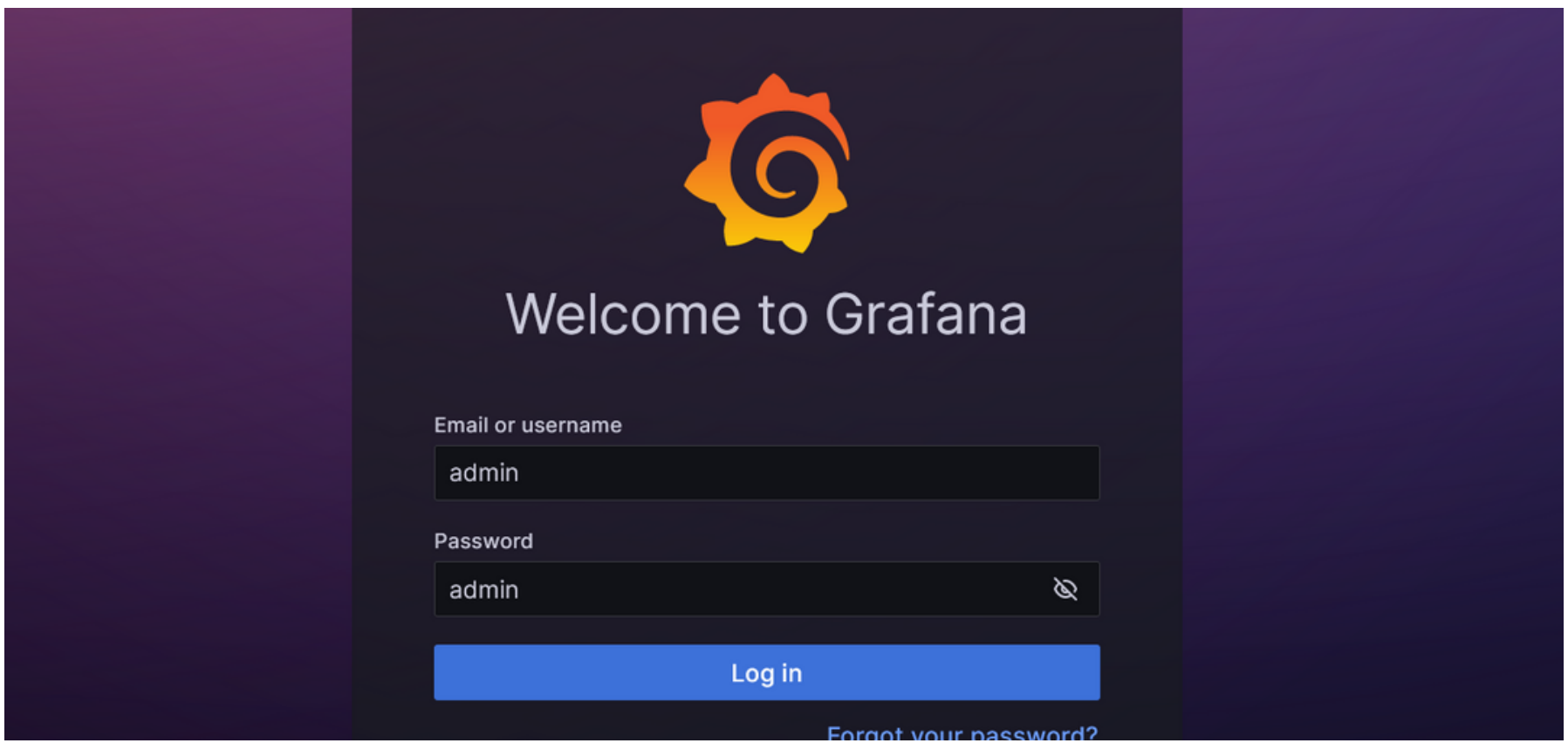
./grafana-server

8. **Connect grafana server**

http://localhost:3000/login

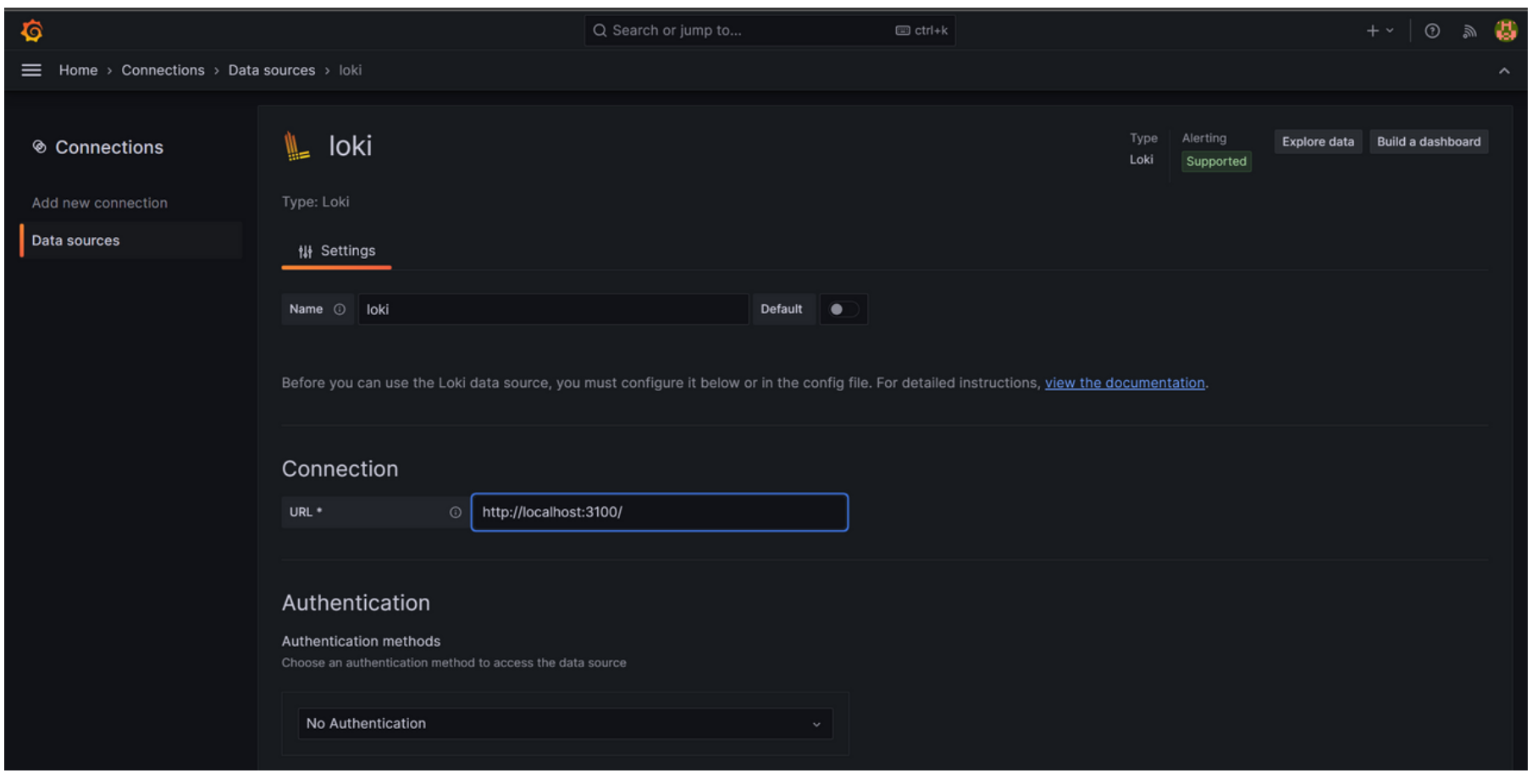
9. **Login to grafana server**

Default username : admin
Default password : admin



10. **Integrate prometheus and grafana**

Go to grafana dashboard
Add a loki data source
Enter the URL in which loki server is running .
After entering the URL then click save and test .



11. **See the docker logs**

Create a new dashboard using loki as data source .
Use this {job="docker-logs"} |= `error` to see logs where you are getting error keyword .