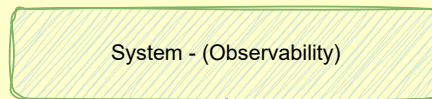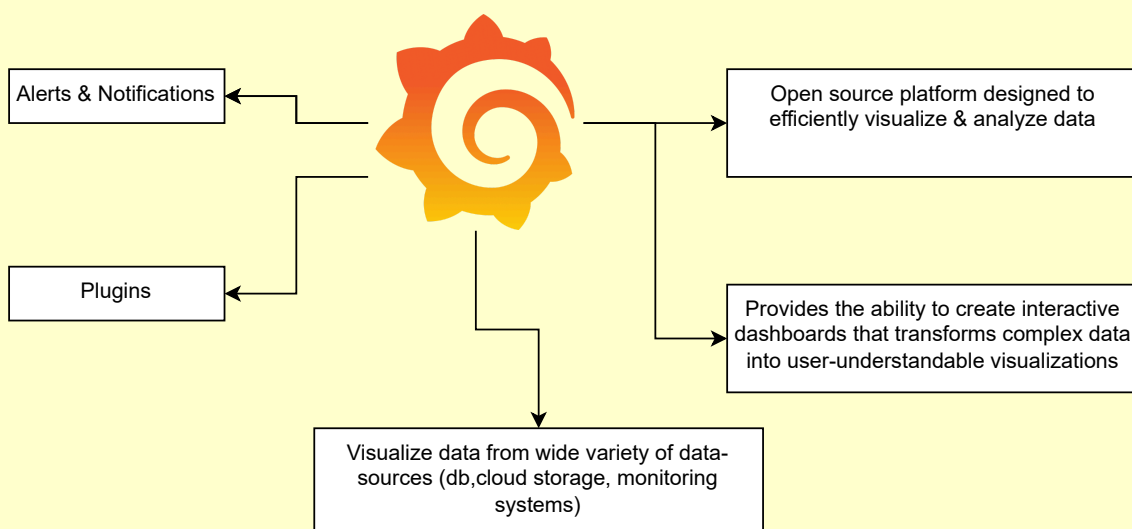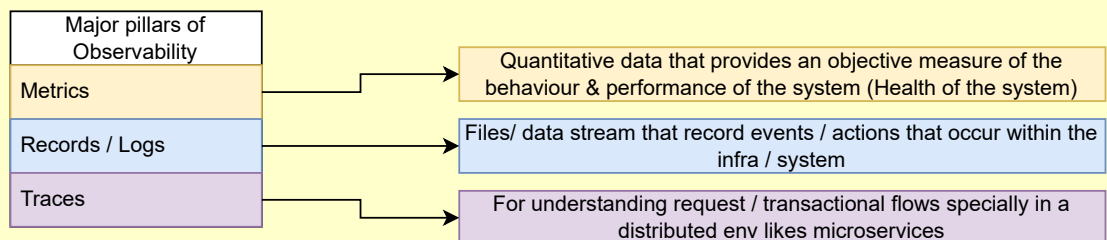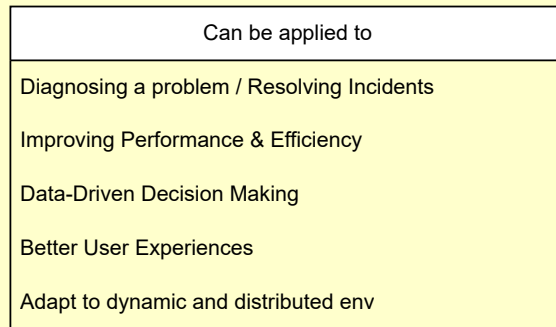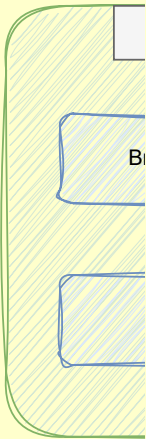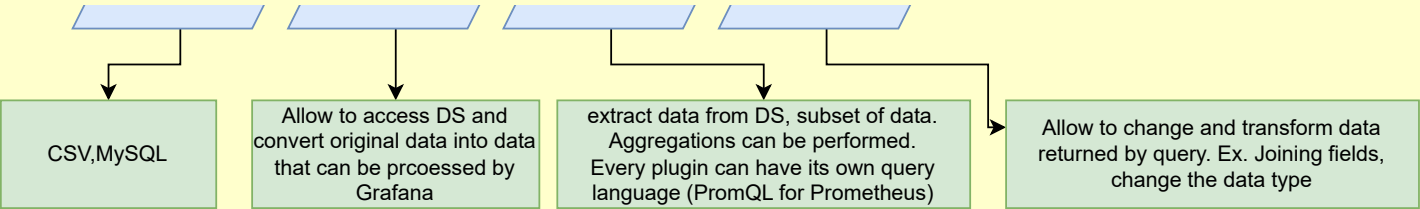| Dashboards |
|---|
| Interactive graphical component used to visualize data (one or more data sources) |
| Made up of panels (view different parts of data independently) |
| Every panel can have different displays |

Dashboard creation Process

Data Source ⟩ Plugin ⟩ Query ⟩ Transformation

```
                    ┌─────────────────────────┐
                    │  System - (Observability) │
                    └─────────────────────────┘
                                 │
                                 ▼
                    ┌─────────────────────────┐
                    │   External Tool/Products │
                    └─────────────────────────┘
```
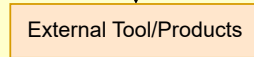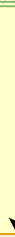
Dev/Op Team can understand behaviour of the system

Can be applied to
Diagnosing a problem / Resolving Incidents
Improving Performance & Efficiency
Data-Driven Decision Making
Better User Experiences
Adapt to dynamic and distributed env

Major pillars of Observability
Metrics
Records / Logs
Traces

Metrics → Quantitative data that provides an objective measure of the behaviour & performance of the system (Health of the system)

Records / Logs → Files/ data stream that record events / actions that occur within the infra / system

Traces → For understanding request / transactional flows specially in a distributed env likes microservices

Alerts & Notifications

Plugins

Open source platform designed to efficiently visualize & analyze data

Provides the ability to create interactive dashboards that transforms complex data into user-understandable visualizations

Visualize data from wide variety of data-sources (db,cloud storage, monitoring systems)

CSV,MySQL

Allow to access DS and convert original data into data that can be prcoessed by Grafana

extract data from DS, subset of data. Aggregations can be performed. Every plugin can have its own query language (PromQL for Prometheus)

Allow to change and transform data returned by query. Ex. Joining fields, change the data type

B

Options for using Grafana /
Flavours

Open Source (OSS)

Enterprise → Premium plugins

Cloud

Grafana Client

rowser (http://localhost:3000)

Grafana CLI

Grafana Server / Daemon
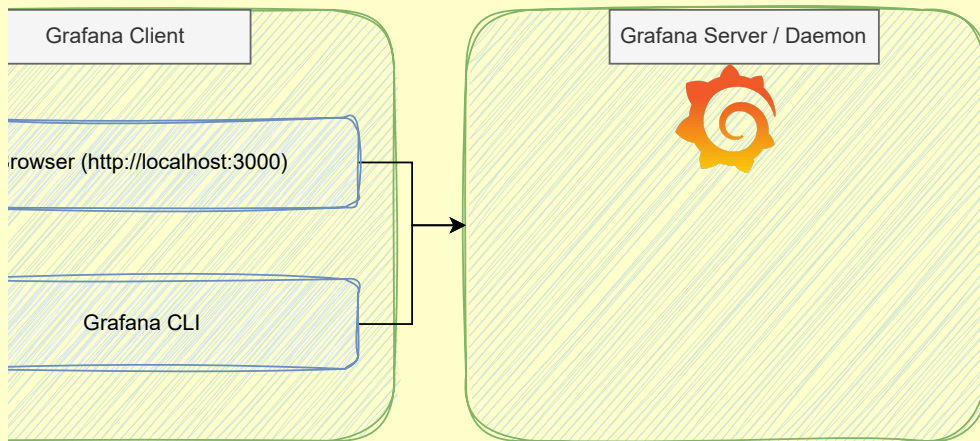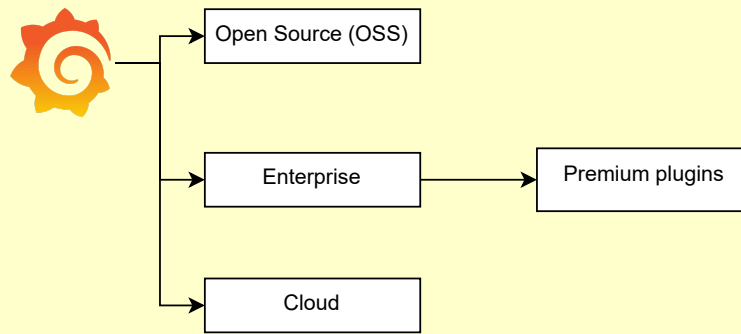
Create a new ds
Create a new Folder (HandsOn)

Data -> Seperator , header -> line 3

Population

In Millions

Country