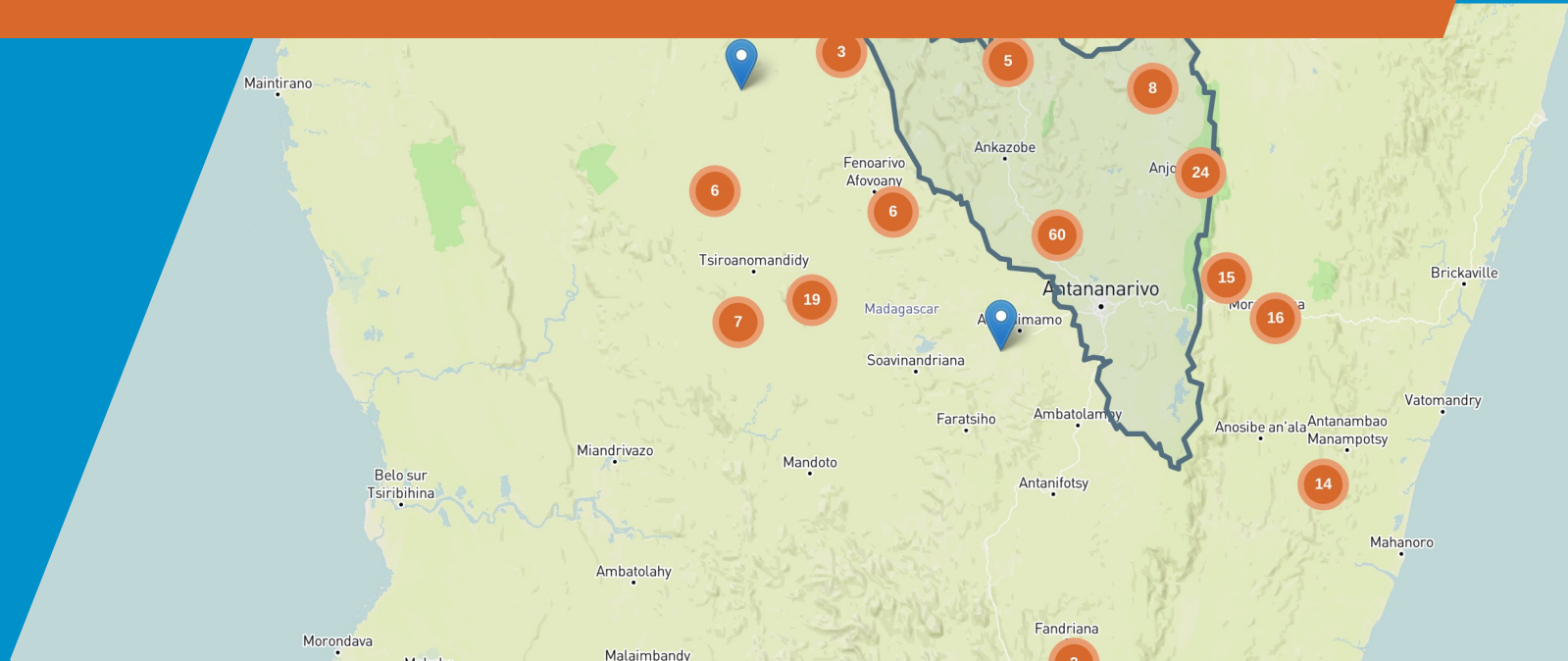


IEES · Public Health Surveillance

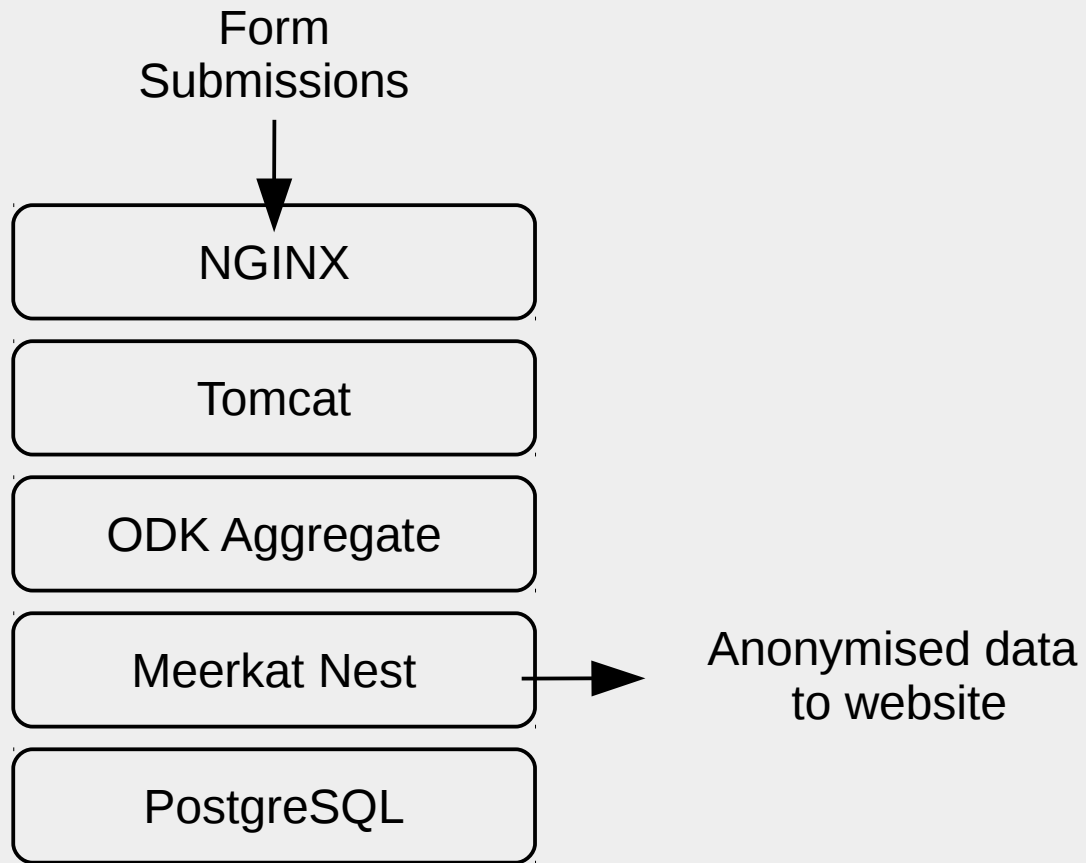


Meerkat Software Training
The Data Collection Server

Overview

- **Talk:** Software on the MOH Server
- **Talk:** Spotlight on PostgreSQL
- **Exercises:** Setting up PostgreSQL
- **Talk:** The NGINX Webserver
- **Exercise:** Setting up a Webserver
- **Summary**

Software Stack



NGINX - Webserver

NGINX

Tomcat

ODK Aggregate

Meerkat Nest

PostgreSQL

The image shows the NGINX logo in a large, bold, green font. The logo is composed of the letters 'N', 'G', 'I', 'N', 'X' in a stylized, blocky font. The 'G' and 'X' have unique geometric shapes. The logo is centered horizontally and occupies a significant portion of the right side of the slide.

Tomcat - Webserver

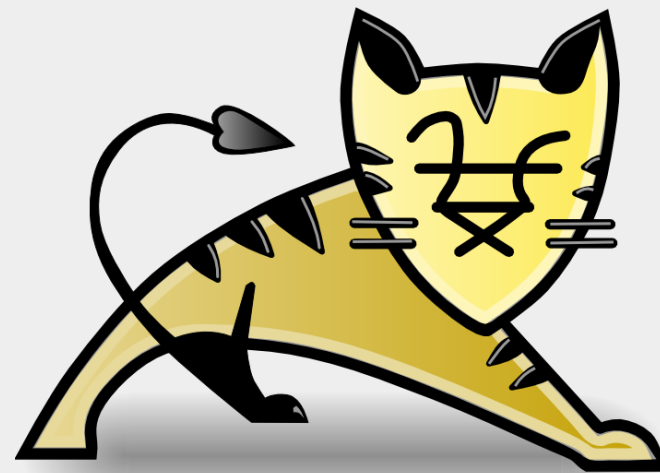
NGINX

Tomcat

ODK Aggregate

Meerkat Nest

PostgreSQL



ODK Aggregate – Form Hub

NGINX

Tomcat

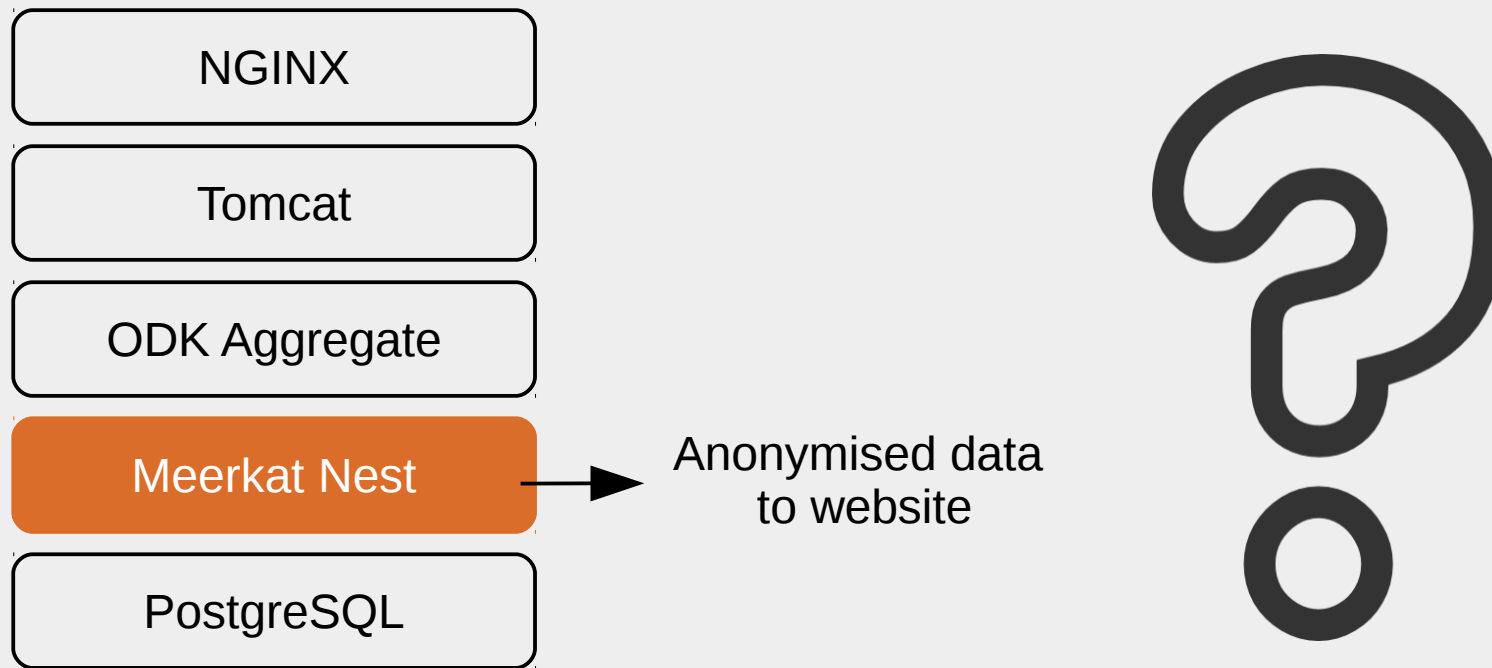
ODK Aggregate

Meerkat Nest

PostgreSQL



Meerkat Nest – Data export



PostgreSQL – Database

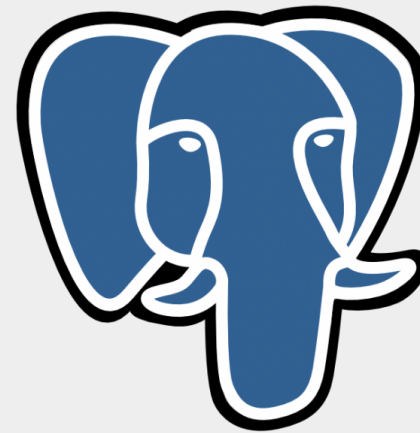
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PostgreSQL

Spotlight: PostgreSQL



Why PostgreSQL?

- Open source, community driven and free
- Strong support community and documentation
- Cross platform
- Incredibly reliable and stable
- Does everything!

PostgreSQL – Some Key Concepts

- PostgreSQL can hold multiple databases
- Each database holds multiple tables
- “Roles” determine access and authorisation for these objects.
- By default postgresql will try to log you in using the same role title as your Linux username

Exercise: PostgreSQL Databases

Installation and Setup

Spotlight: NGINX Webserver



Why NGINX?

- Fast! Performs well in benchmarking tests.
- Extremely scalable
- Flexible – write and install plugins
- Well supported and documented
- Free and open source!

NGINX Configuration Files

- Kept in `/etc/nginx/`
- Nested contexts
- Very powerful
- Beyond our scope

```
1  # Main context
2  http {
3      server {
4          listen 80
5          server_name demo.emro.info
6          location /{
7              # Do more stuff here
8          }
9      }
10     server {
11         listen 443
12         server_name demo.emro.info
13         # Do more stuff here
14     }
15 }
16 mail {
17     # Do stuff here
18 }
19 events {
20     # Do stuff here
21 }
```

Exercise: NGINX Webserver

Setting up a secure webserver

Summary

The MOH Server Software Stack:

NGINX

Tomcat

ODK Aggregate

Meerkat Nest

PostgreSQL

Installed significant Linux packages: PostgreSQL & NGINX

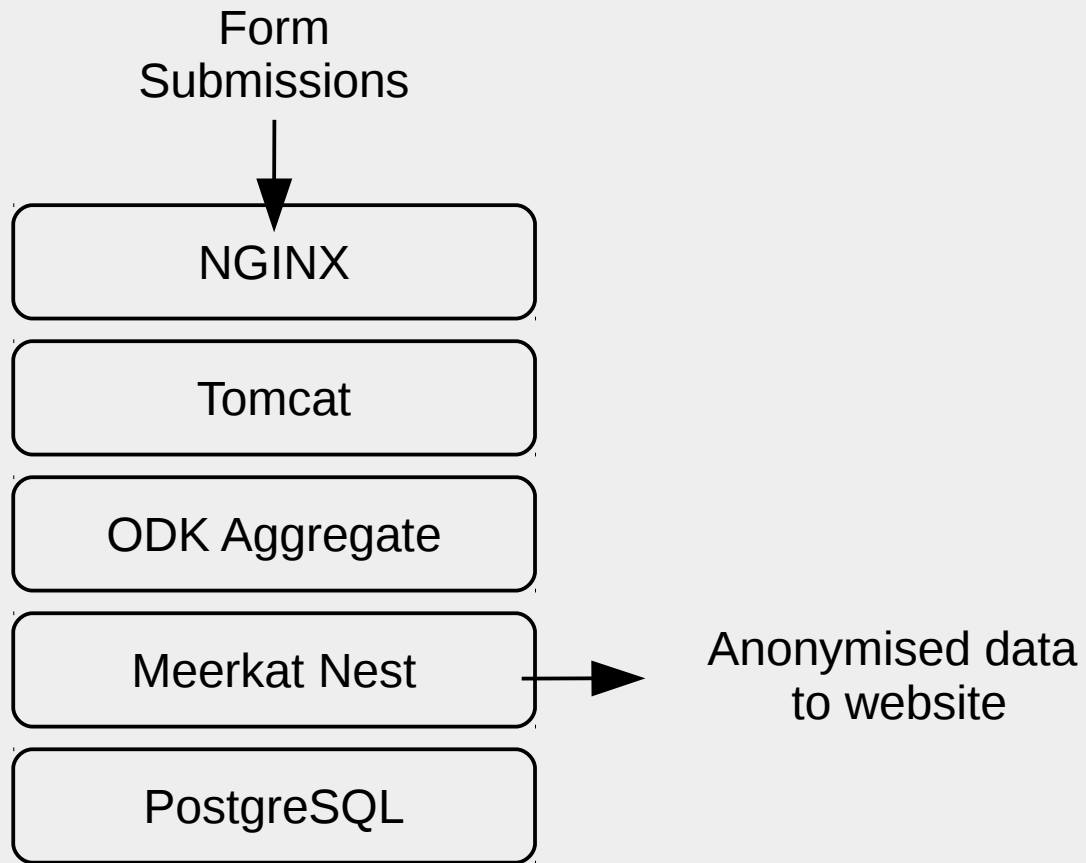
Countless tutorials/docs online to help you e.g...

<https://www.nginx.com/resources/wiki/>

<https://www.postgresql.org/docs/>

and of course: [google.com](https://www.google.com)

Software Stack



NGINX - Webserver

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The image shows a large, stylized green logo for NGINX. The letters are bold and blocky, with a unique design where the 'i' and 'l' have a small gap in the middle. The 'X' is composed of two thick, intersecting lines.

Tomcat - Webserver

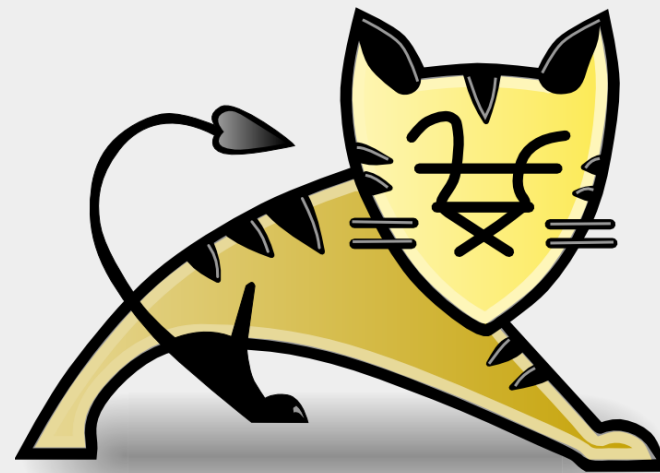
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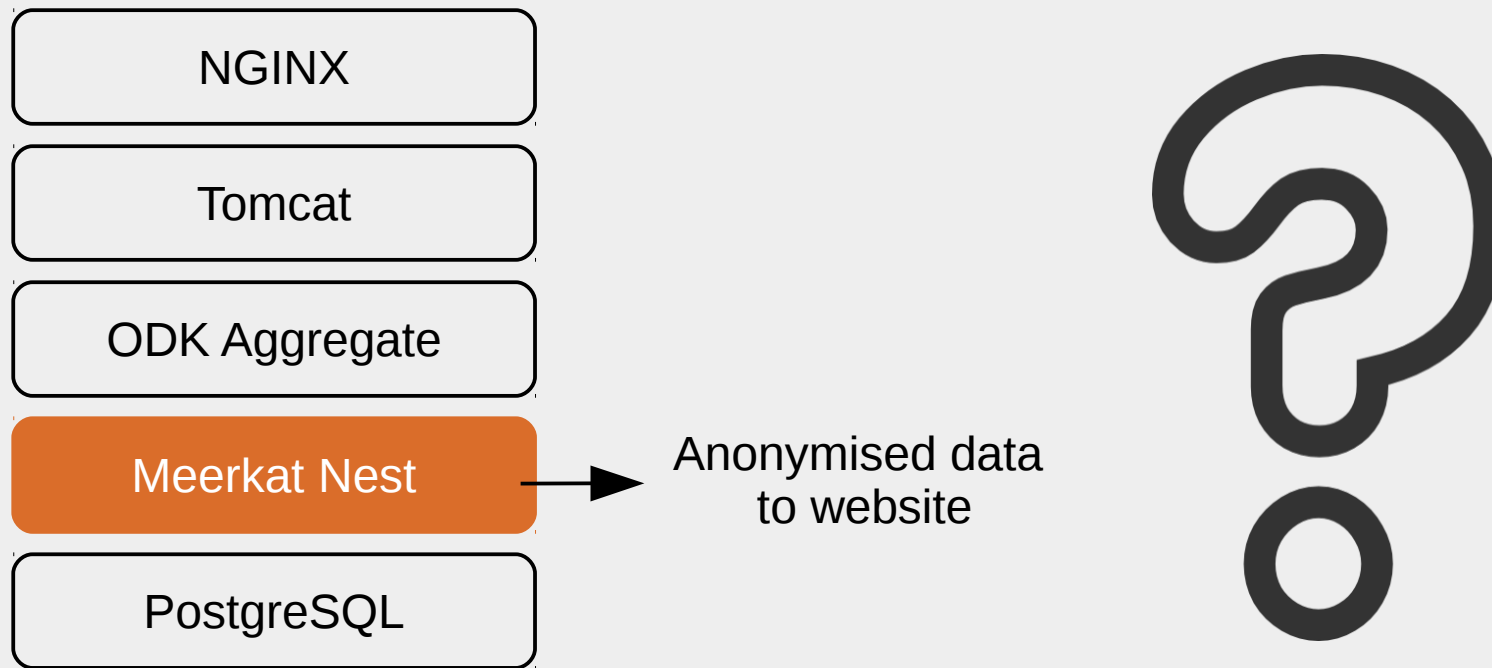
ODK Aggregate

Meerkat Nest

PostgreSQL



Meerkat Nest – Data export



PostgreSQL – Database

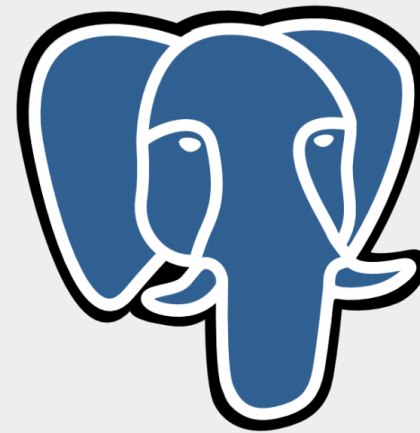
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and of course: [google.com](https://www.google.com)