

# Platform development

Key concepts, install environment

# Outline

Architecture overview

Key concepts (api & graph format)

Install development environment locally

(Hands-on exercise: Add an activation function)

# Architecture overview

# Two systems:

Model development + Deployment

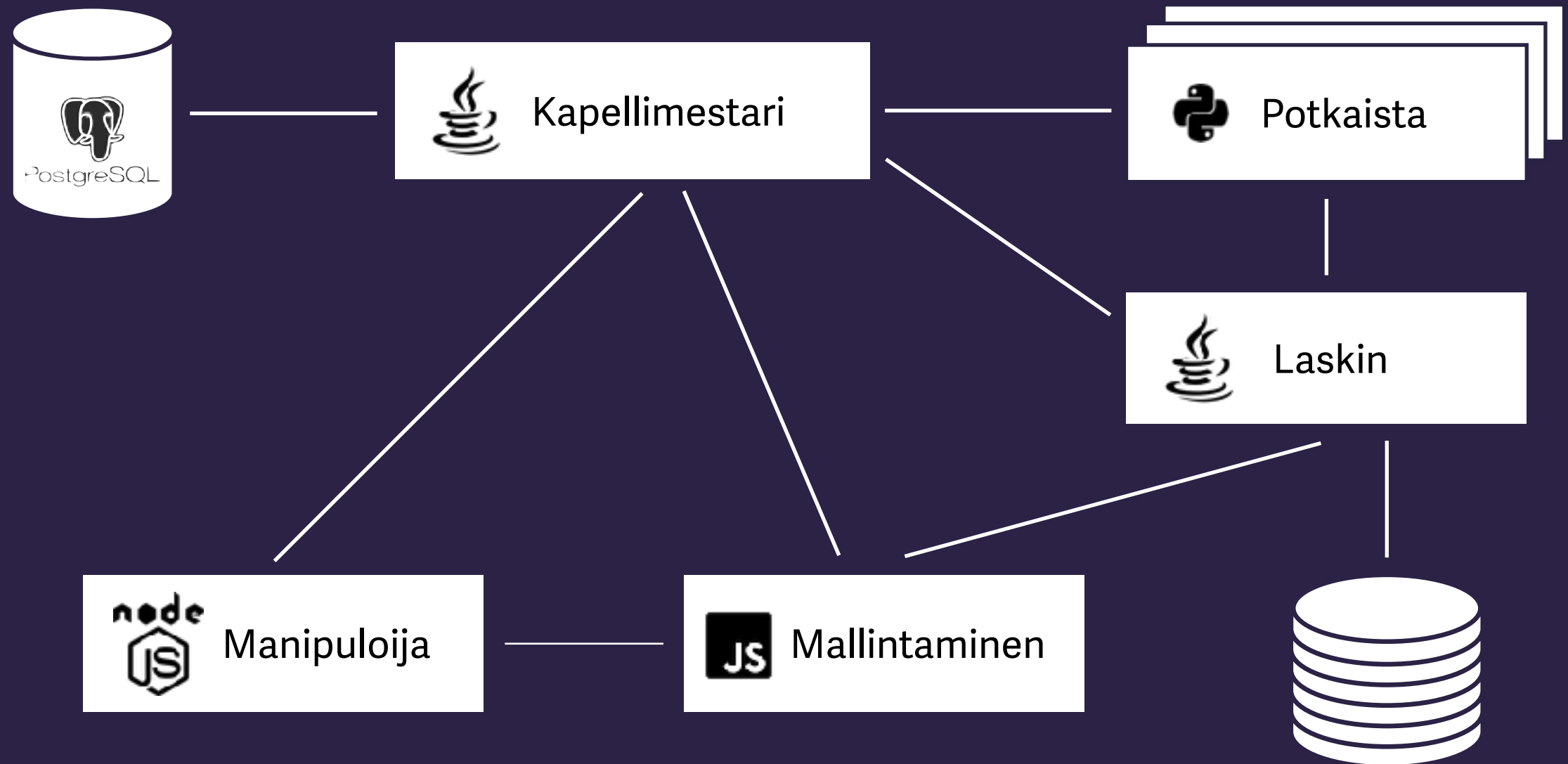
Different tasks

Different availability requirements

**Need to be (fairly) separated systems**

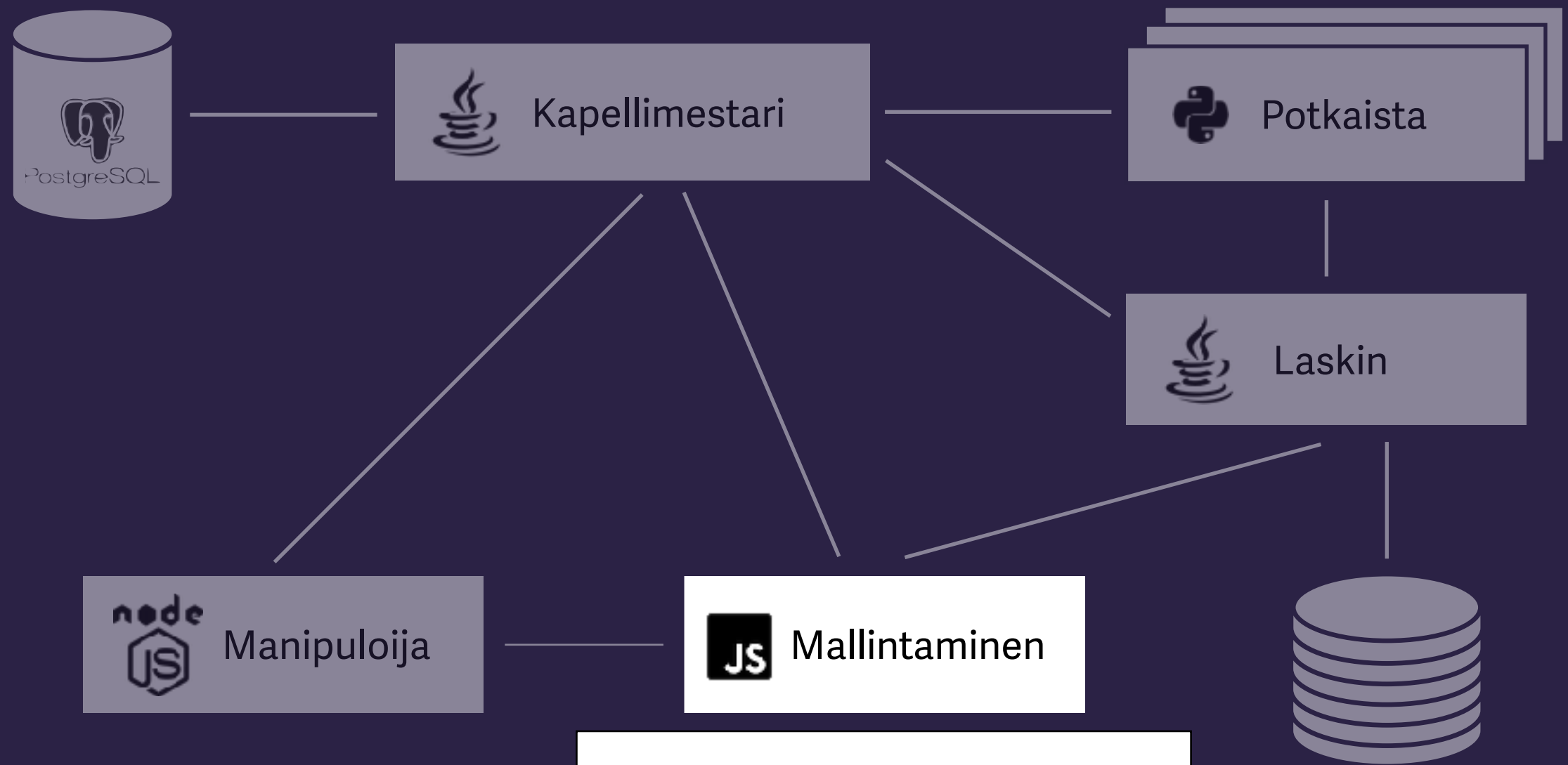
# Model development

## Server Architecture



# Model development

## Server Architecture

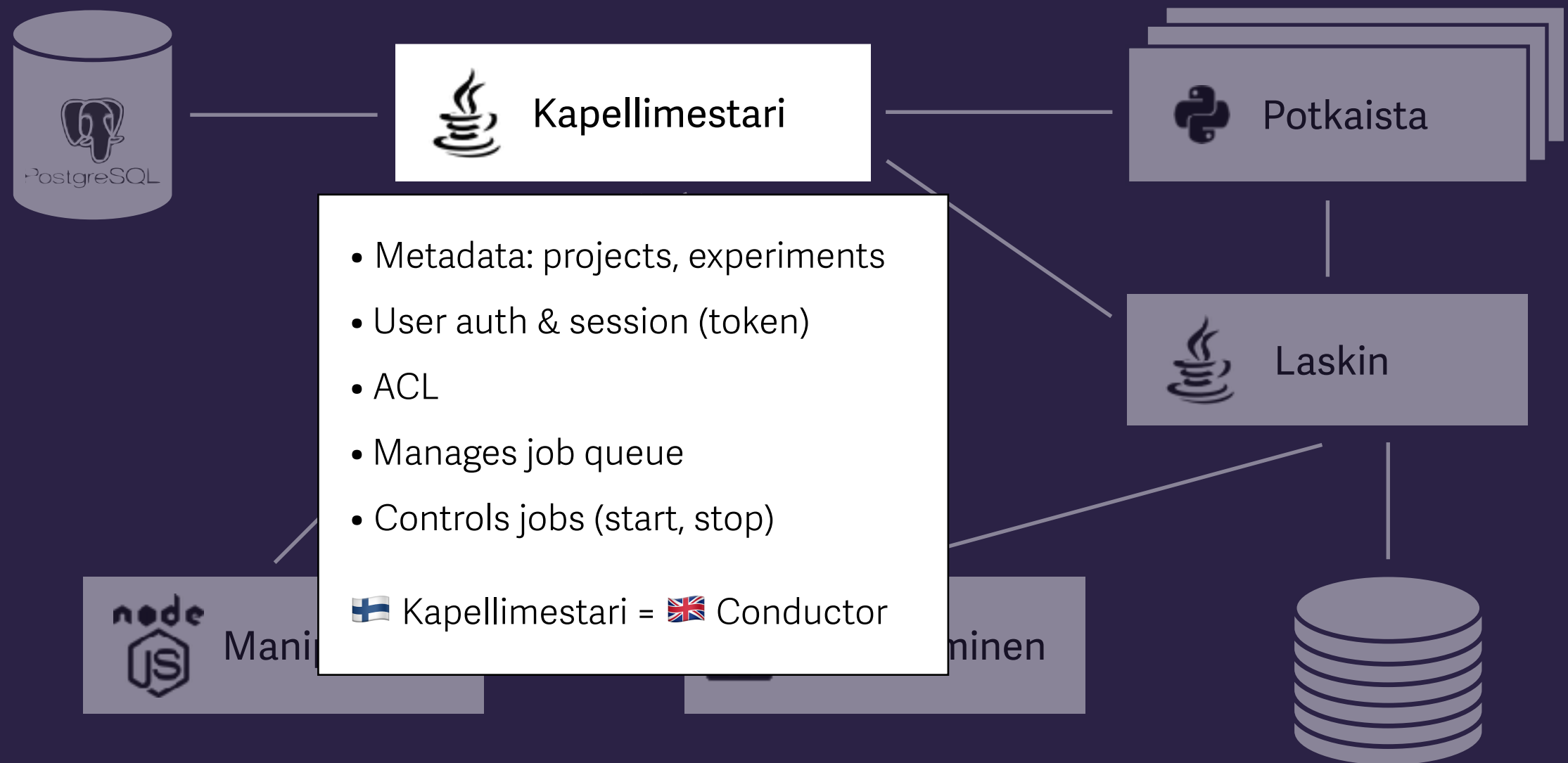


- Web client, user interface
- Hosted by NGINX

🇫🇮 Mallintaminen = 🇬🇧 Modeling

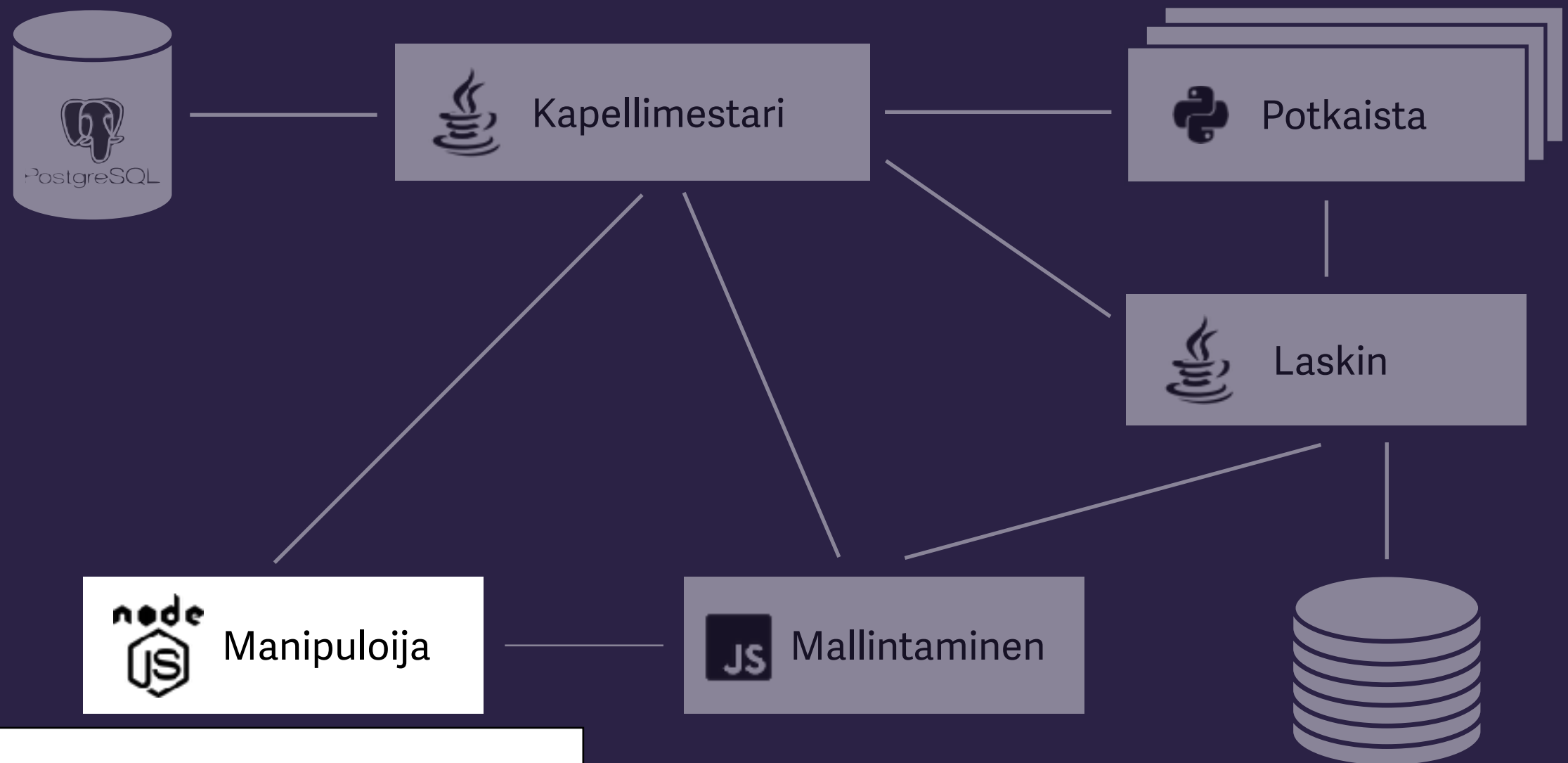
# Model development

## Server Architecture



# Model development

## Server Architecture



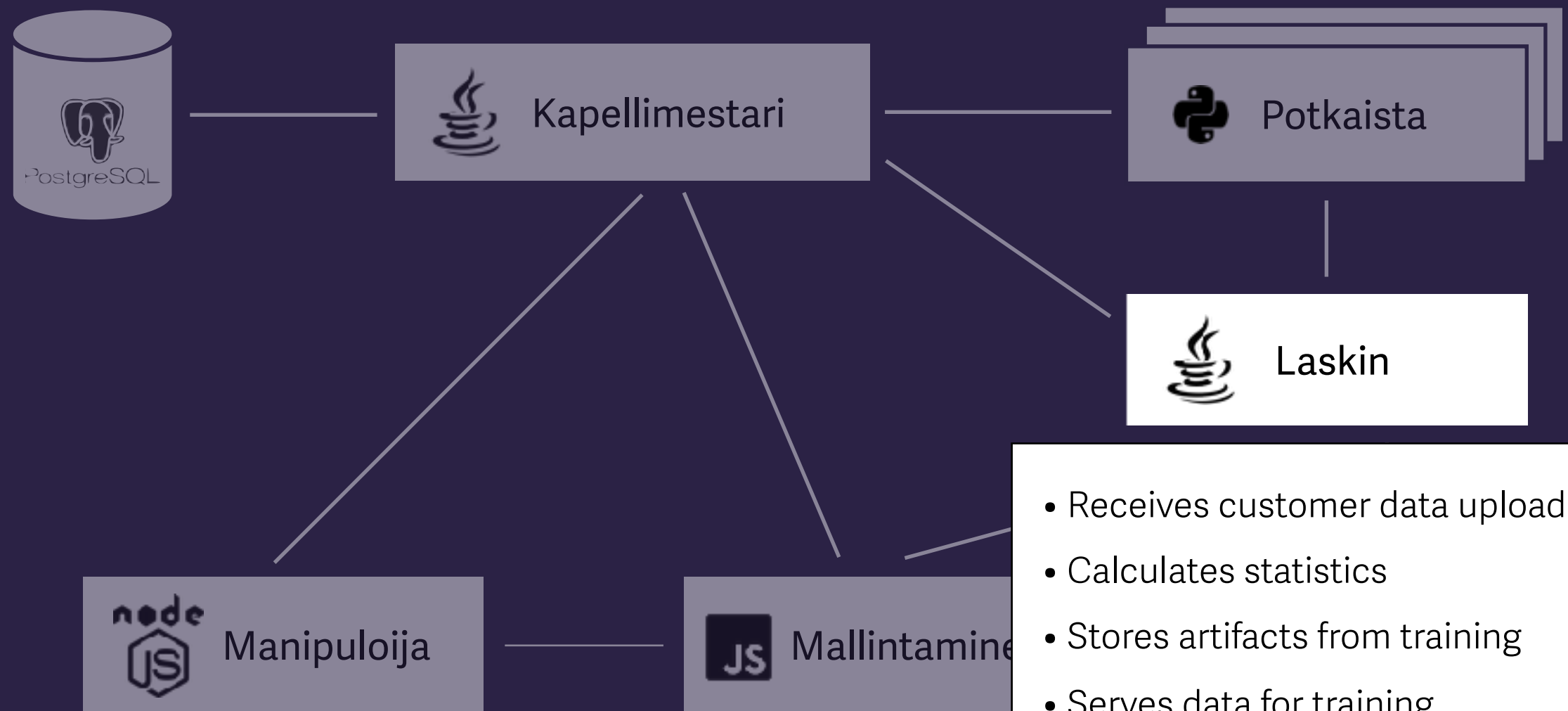
- Coordinates model builder collaboration and edits

🇫🇮 Manipuloija = 🇬🇧 Manipulator



# Model development

## Server Architecture

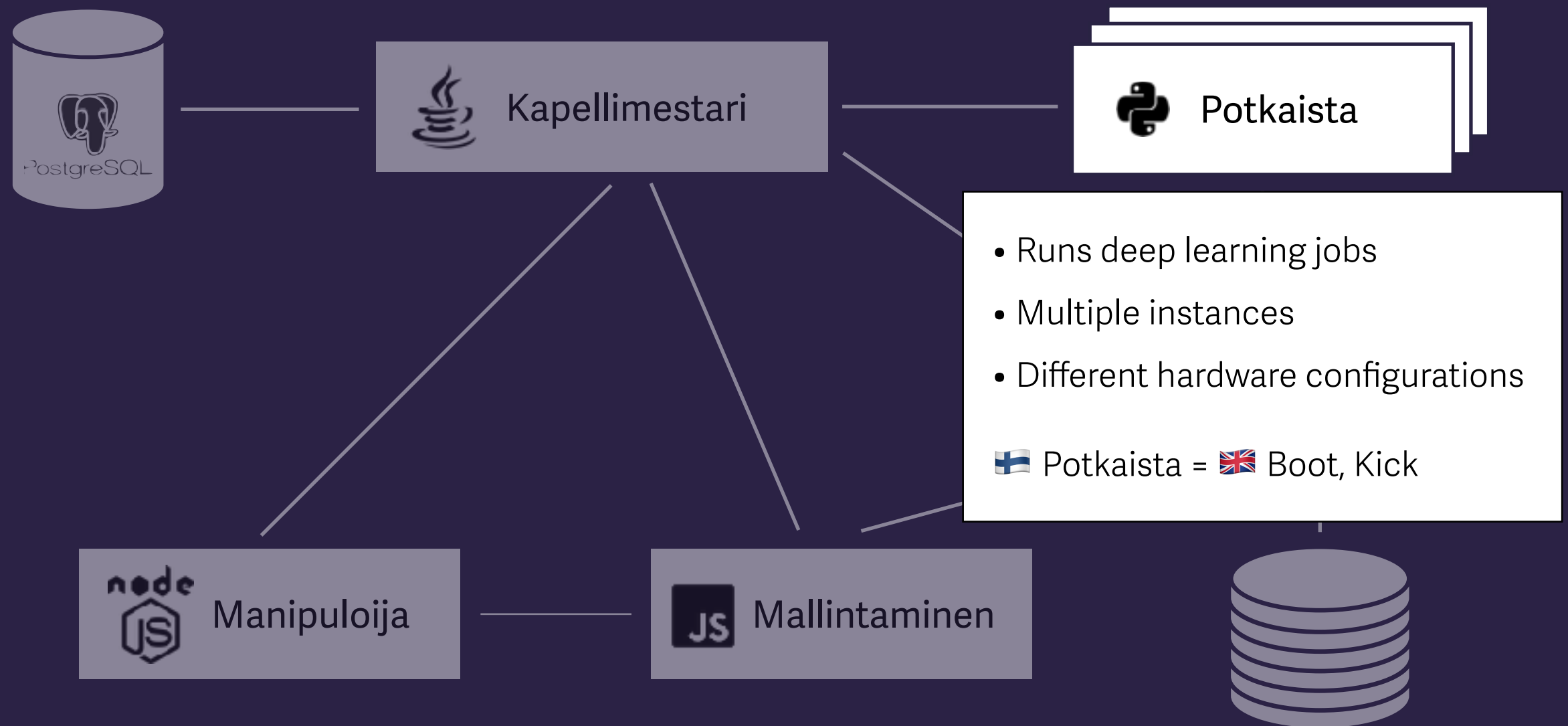


- Receives customer data upload
- Calculates statistics
- Stores artifacts from training
- Serves data for training
- Serves data to UI
- Performs pre/post processing

🇫🇮 Laskin = 🇬🇧 Calculator

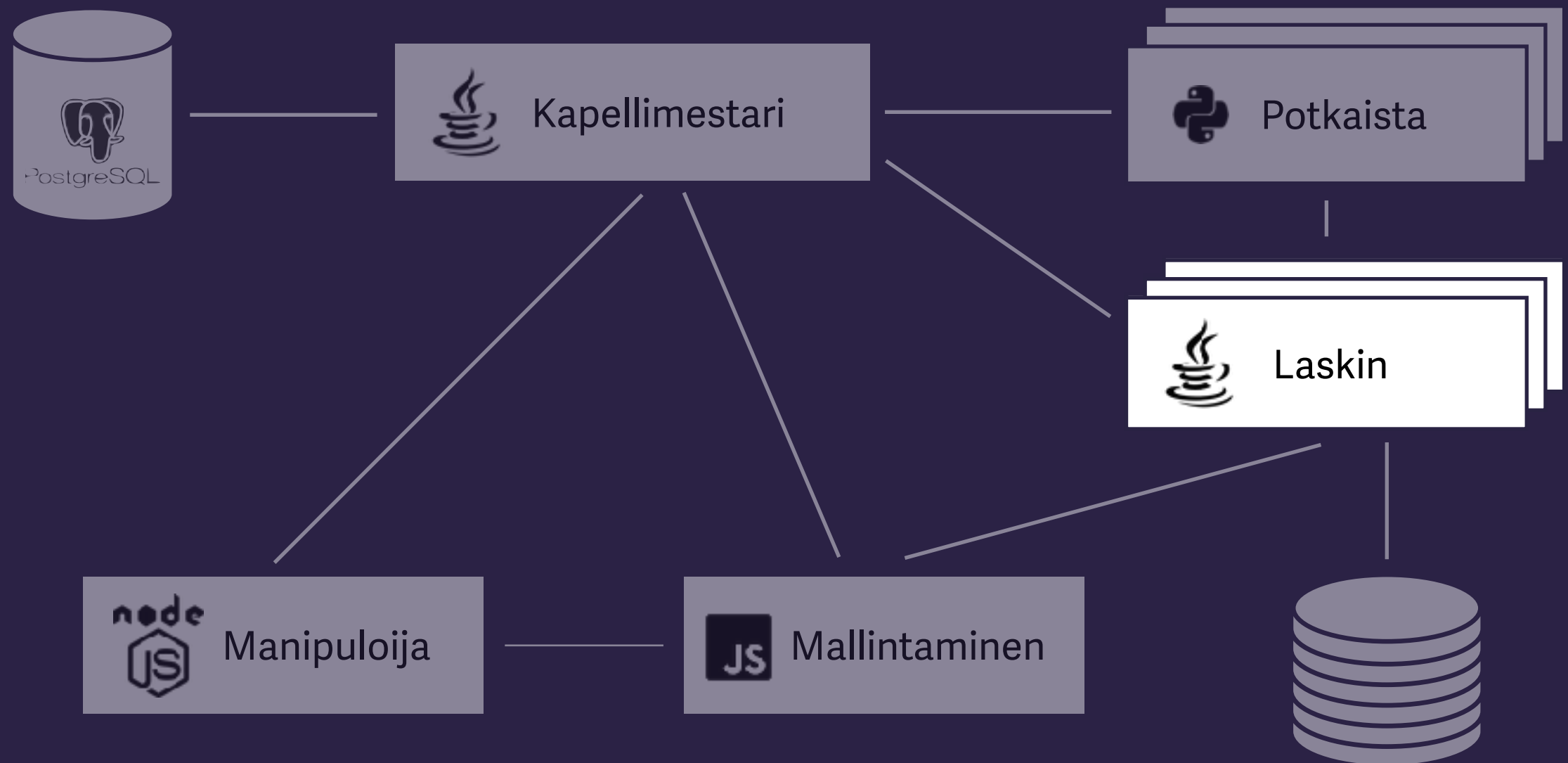
# Model development

## Server Architecture



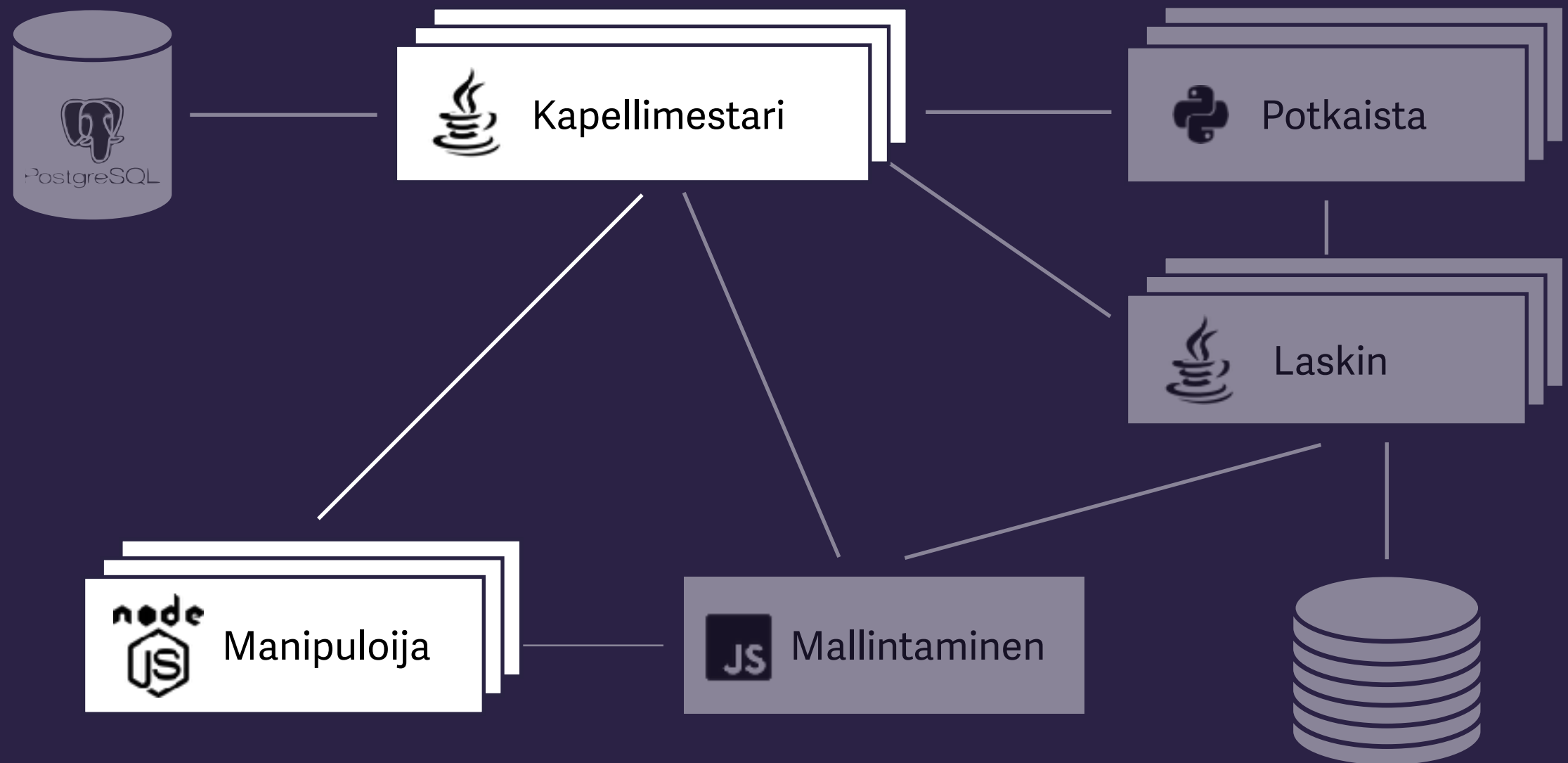
# Model development

## Server Architecture - near future



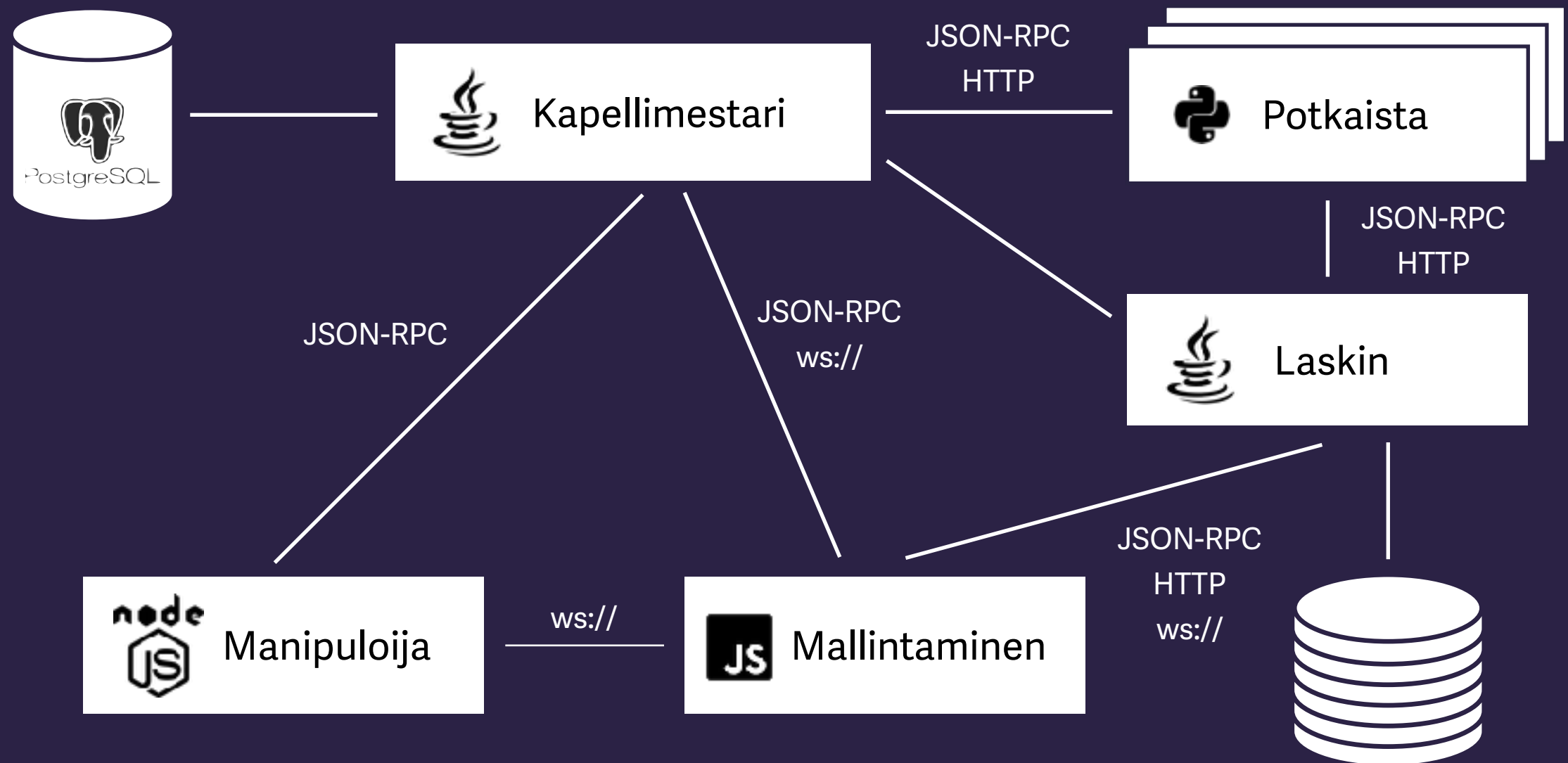
# Model development

## Server Architecture - far future



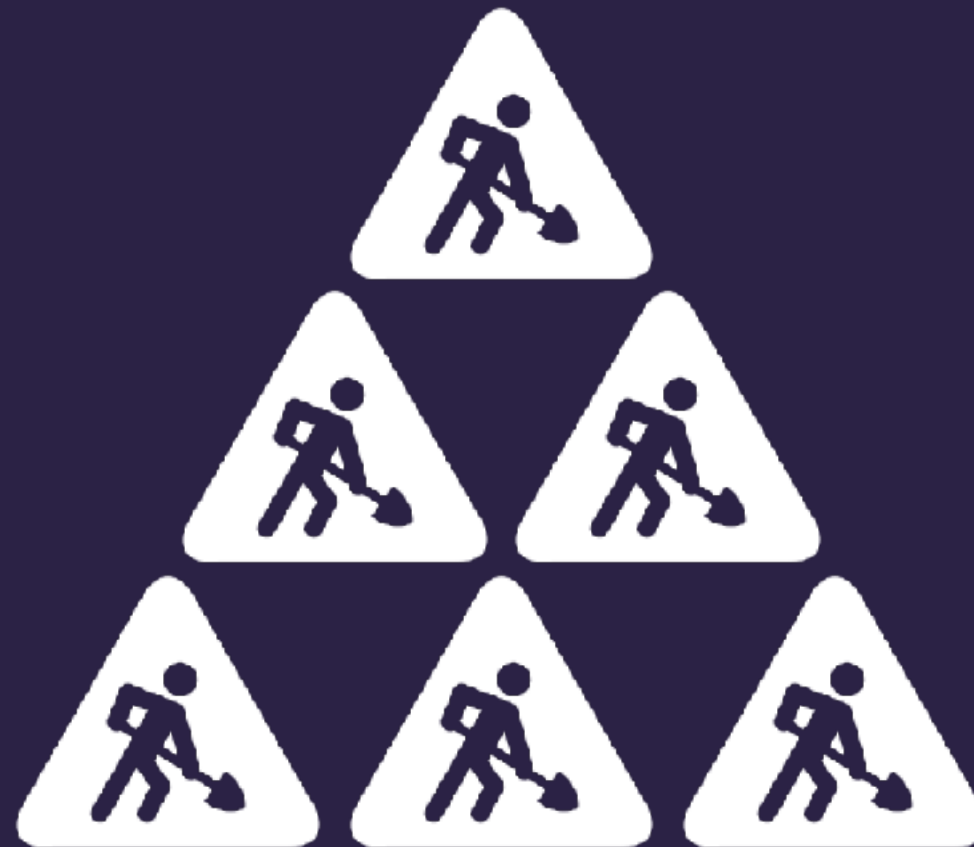
# Model development

## Used communication protocols



# Deployment

## Server Architecture



**Key concepts**

# Kapellimestari API:s



# Laskin API:s

# Malli.json

**Install development  
environment**

# Install dev-environment

<https://git.io/vpDgr>

(<https://github.com/Peltarion/rakenne/blob/master/docs/install-platform-local.md>)

# Hands-on exercise

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Add an activation function

# Upcoming sessions

Hands-on exercise: Add a new loss function

Hands-on exercise: Add a new layer