

# Project #1 – Multi-Container App

## Assignment #5 – Kubernetes Volumes & Connectivity

31<sup>st</sup> October 2024

### Advanced Infrastructures for Data Science

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Master in Data Science and Engineering (MDSE) Course

# Project #1 – Multi-container App

Project Name: Tracking Goals Web Application

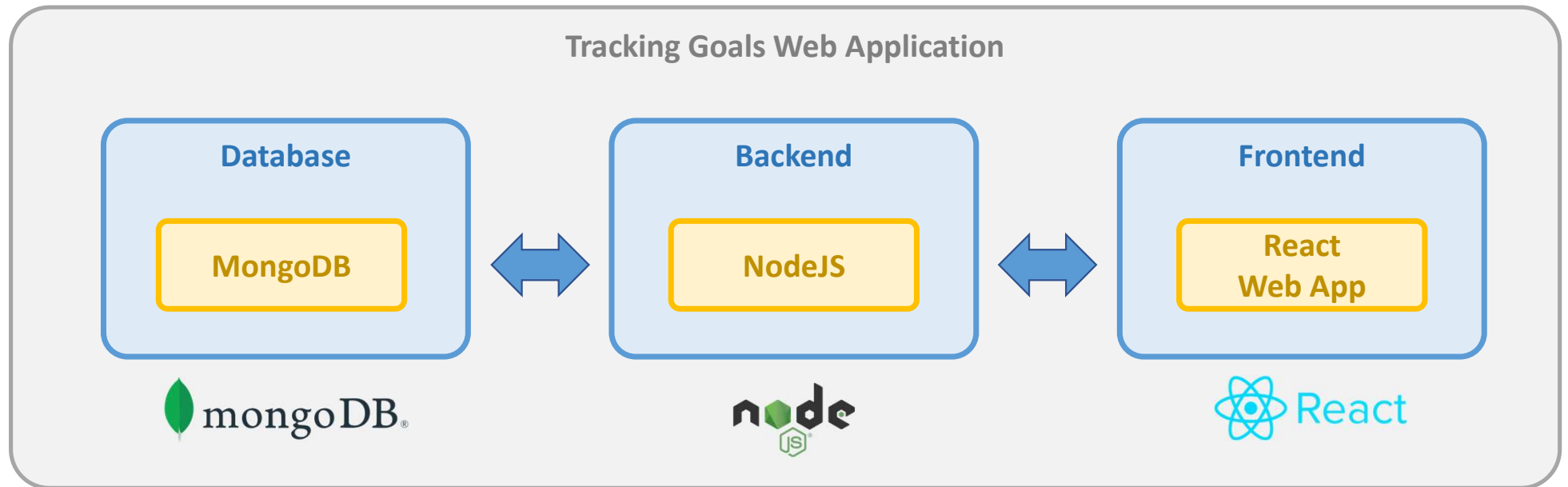
Project Objective: Deploy a multi-container app with Docker  
and Kubernetes

# Web Application Description

# Tracking Goal Web Application

App Objective, Architecture & Technologies

**App Objective:** Allows users to manage (create, view and delete) their goals



# Assignment #5

# Project #1 Assignments

- Project #1
  - Assignment #1 (3<sup>rd</sup> October): Build images and launch containers
  - Assignment #2 (10<sup>th</sup> October): Configure containers connectivity and data persistence
  - Assignment #3 (17<sup>th</sup> October): Deploy the multi-container app through Docker Compose
  - Assignment #4 (19<sup>th</sup> October): Deploy the multi-container app in a Kubernetes Cluster
  - Assignment #5 (31<sup>st</sup> October): Configure the multi-container app with data persistence & connectivity

# Assignment #5

## Tasks

1. Connect the backend component with the database
2. Connect the frontend component with the backend component
3. Persist data from the Database
  - MongoDB stores data on the following path: /data/db
4. Persist data from the NodeJS Web App
  - Logs folder should be persisted



**Good  
Work**