

A wide-angle photograph of a winding asphalt road leading through a valley towards a range of majestic, snow-capped mountains. The sky is filled with heavy, grey clouds. In the foreground, there's a grassy field and some trees. A small yellow sign is visible on the left side of the road.

Building a real time data app in the cloud

About me

- >> Tech Lead Digital Ocean
- >> Worked in Finance at Bloomberg & Thomson Reuters
- >> Built Timeseries database
- >> Writing Book Microservices in Go



To follow Along
Grab this repo

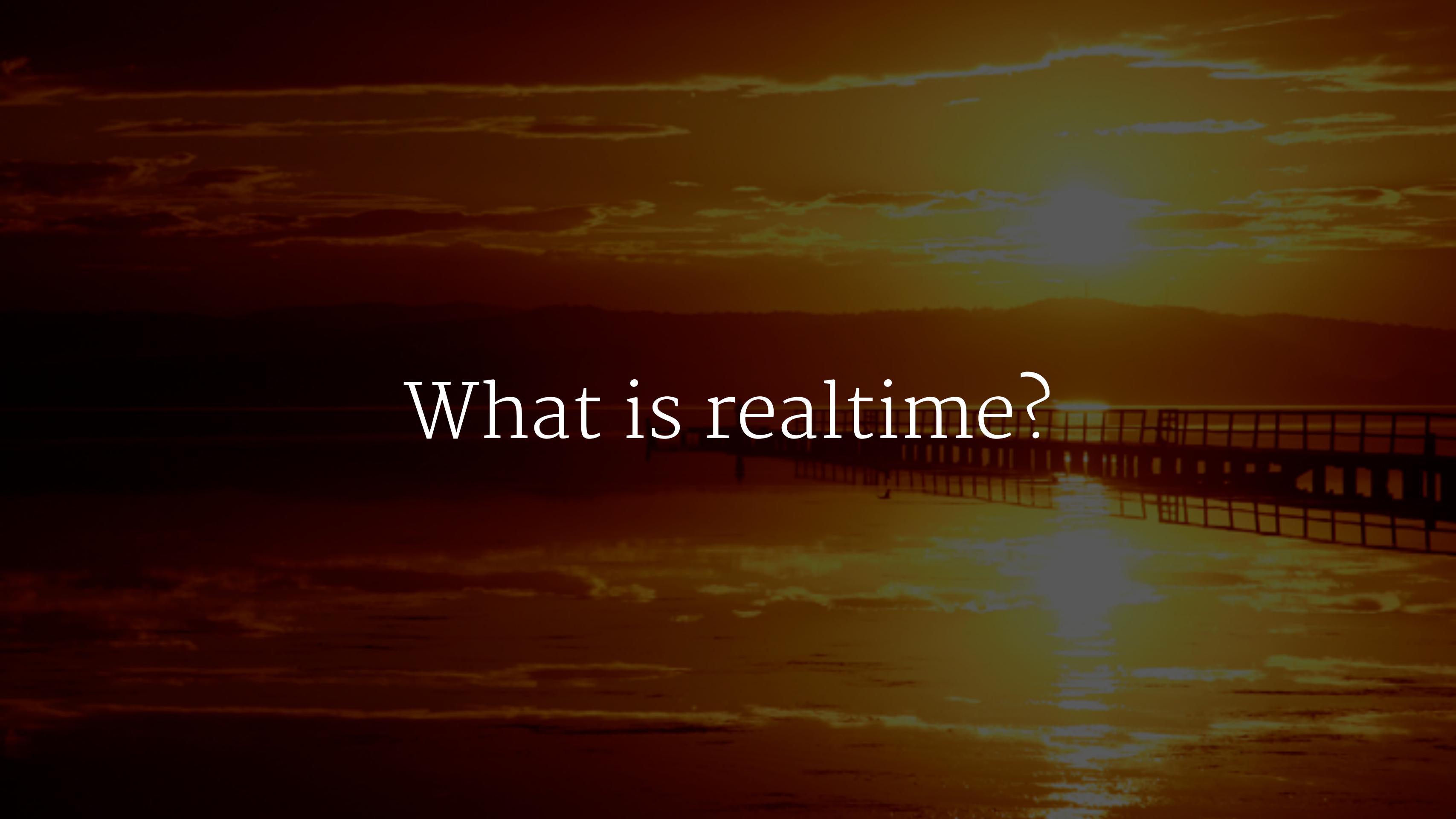
https://github.com/mattkanwisher/demo_stocks_digitalocean

A photograph of a sailboat's deck during sunset. The sky is filled with dark, dramatic clouds with bright orange and yellow highlights from the setting sun. The ocean waves are visible in the background. In the foreground, the white deck of the boat is visible, along with a black steering wheel and some coiled ropes.

Building a real time app

A traditional wooden longtail boat is docked on a sandy beach. The boat is painted dark brown with gold lettering that reads "049 5452 ยลวิช โนอซุน". It is adorned with colorful ribbons and flower garlands. In the background, the ocean is a vibrant turquoise, and distant mountains are visible under a cloudy sky.

What is a microservice

The background of the slide features a wide-angle photograph of a natural landscape. In the foreground, there's a body of water with small ripples. In the middle ground, a long wooden pier or bridge extends from the left towards the right. The background consists of a range of mountains under a sky filled with scattered clouds. The lighting suggests it's either sunrise or sunset, with warm orange and yellow hues on the horizon transitioning into cooler blues and purples higher up.

What is realtime?

What are the protocols

- >> Websockets
- >> Sockets
- >> Http Polling
- >> Http Long Poll
- >> Server side events
- >> http 2.0 Server Push

Sockets.io Library

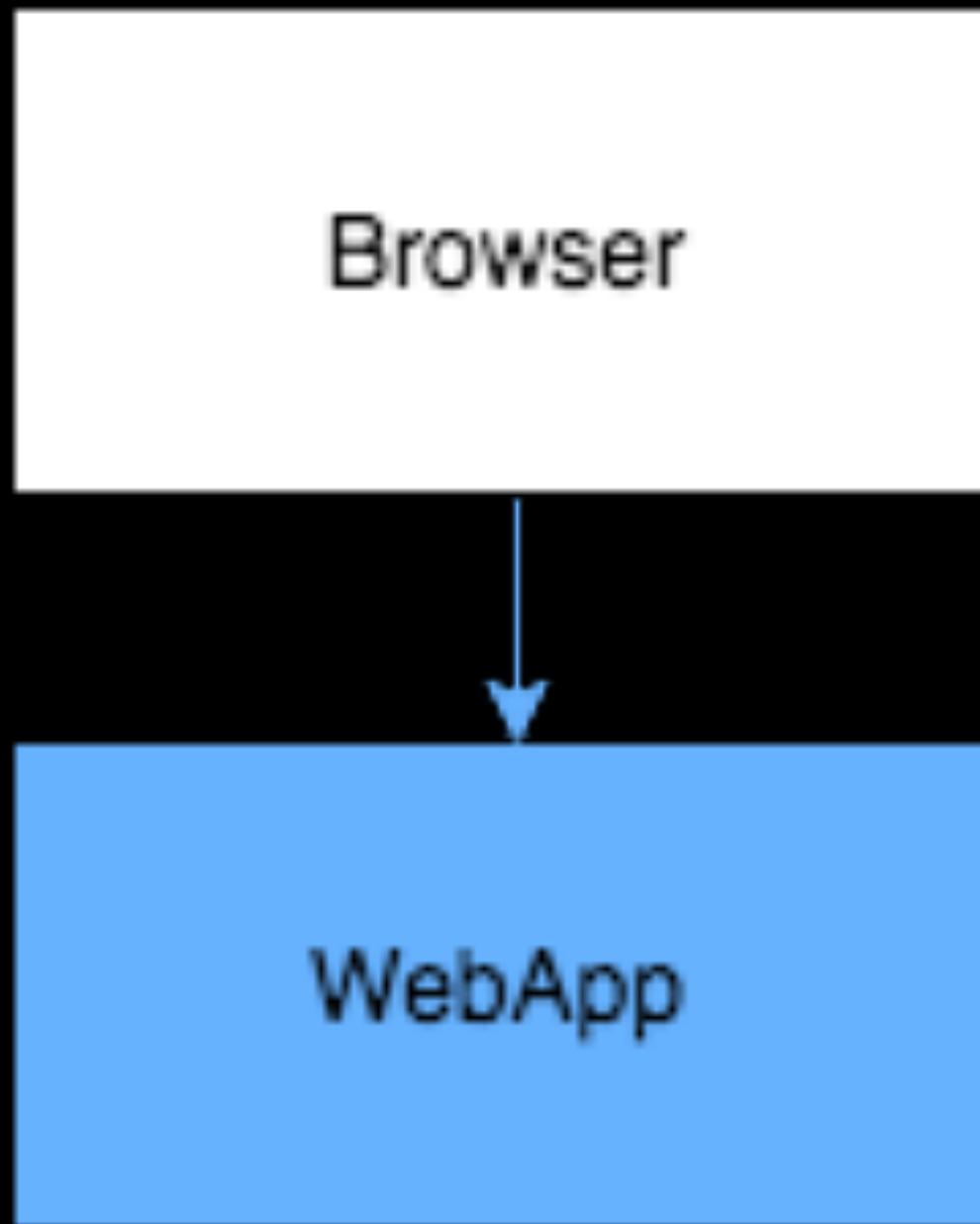
FAIL

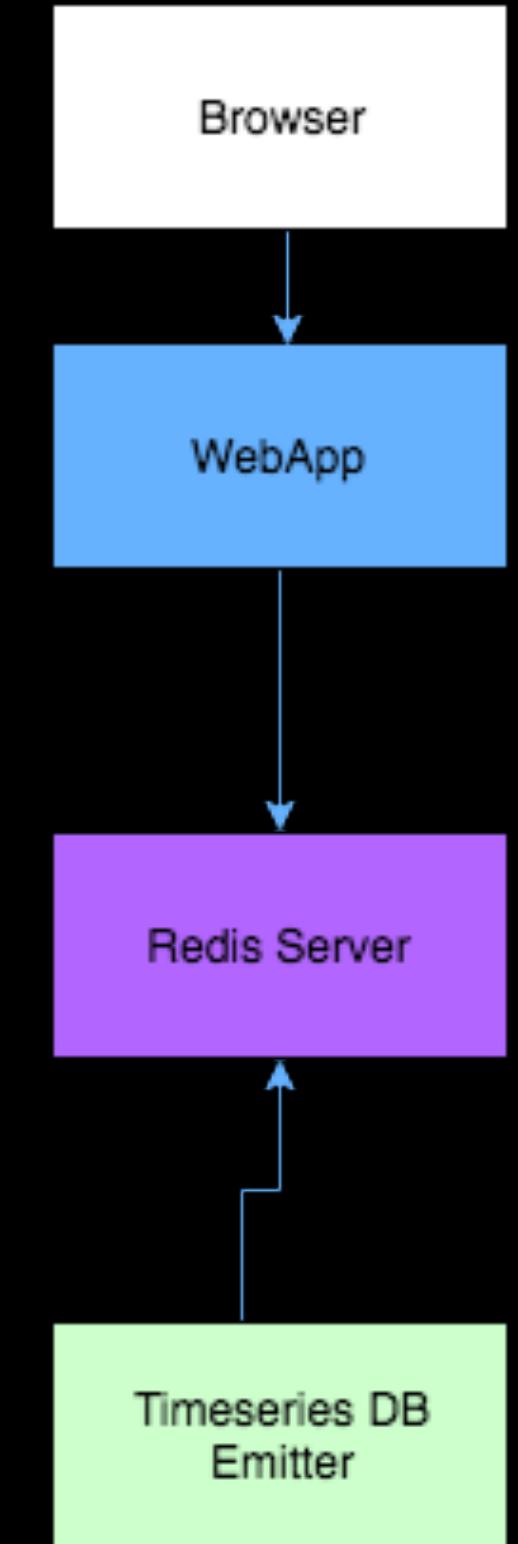
Demo build App

The background of the image is a dramatic, dark sky filled with heavy, textured clouds. The colors range from deep black to fiery orange and red, suggesting either a sunset or a sunrise. In the lower third of the frame, the silhouettes of bare trees are visible against the lighter sky, adding a sense of depth and atmosphere.

Scaling realtime Apps

Current Arch





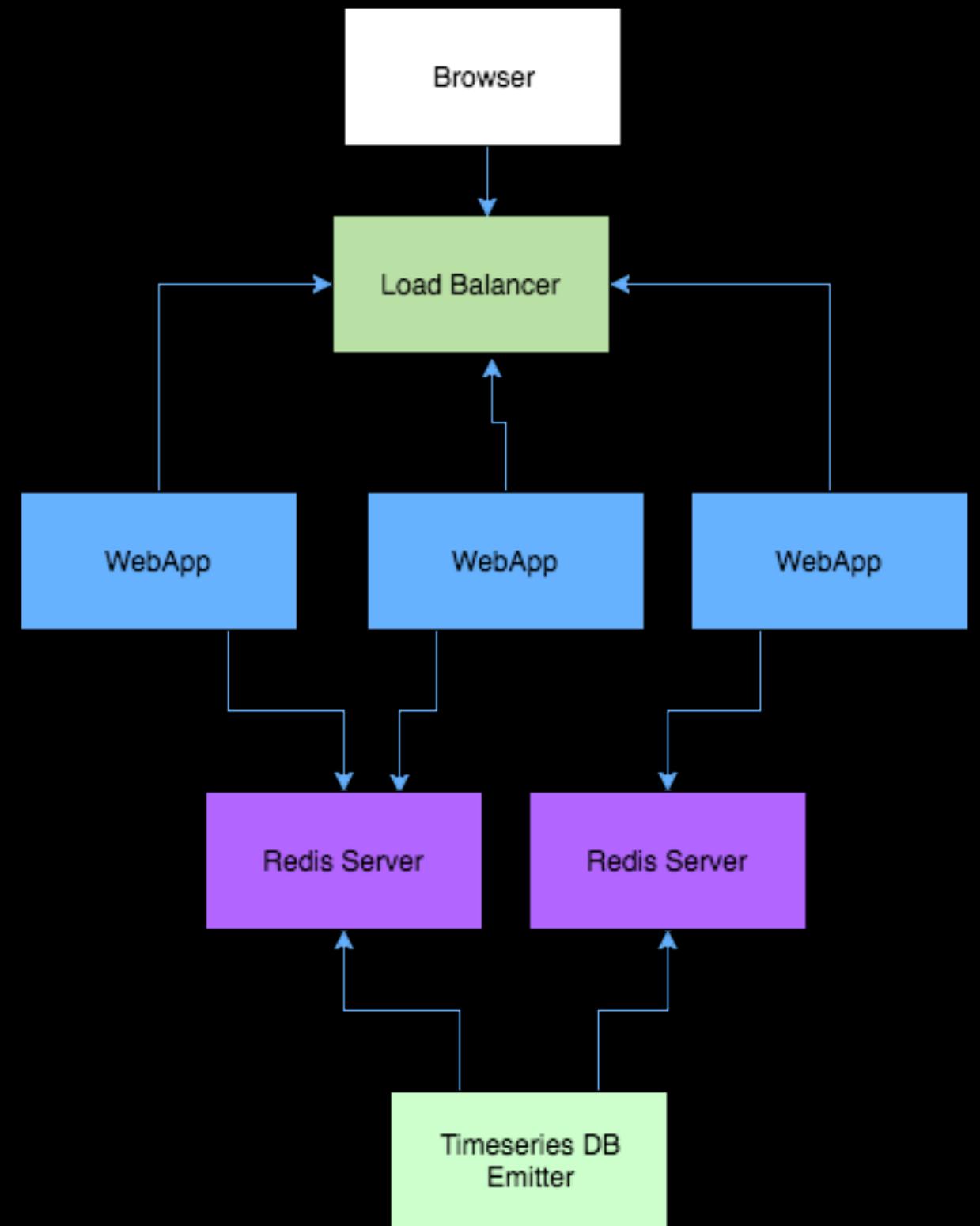
A wide-angle, low-light photograph of a mountain range. The mountains are heavily covered in snow, with dark, rocky outcrops visible through the white. The lighting is dramatic, with strong highlights on the peaks and deep shadows in the valleys, creating a sense of ruggedness and scale.

Production



Docker

Demo time





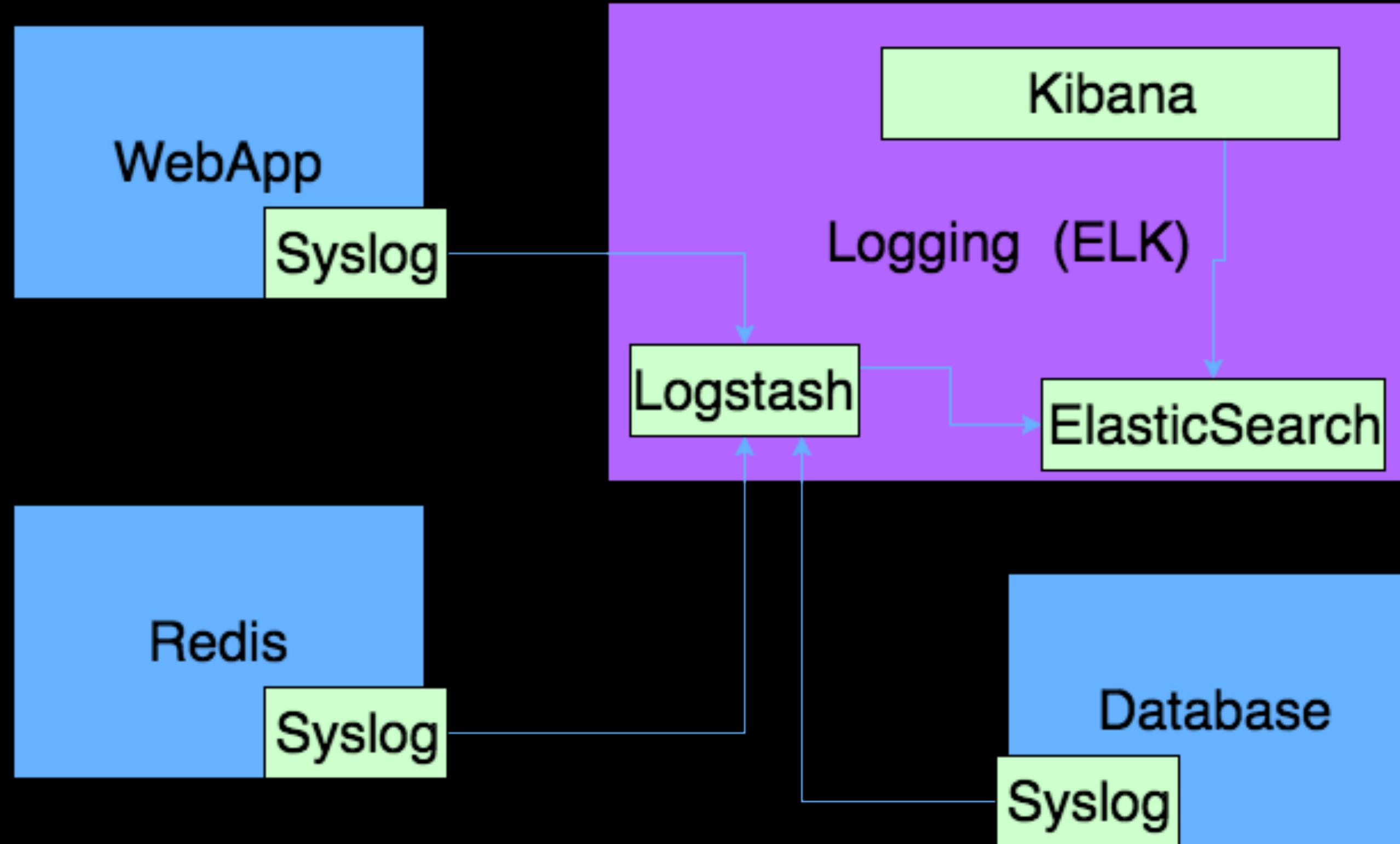
Demo Load balancer/Docker

Kubernetes



The background of the image consists of a stack of red bricks, likely made of clay, stacked in a staggered pattern. The bricks are reddish-brown with some darker, weathered areas. They are arranged in several layers, creating a textured, layered effect.

Logs / Metrics



Final Demo

Questions?

Code:

https://github.com/mattkanwisher/demo_stocks_digitalocean

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