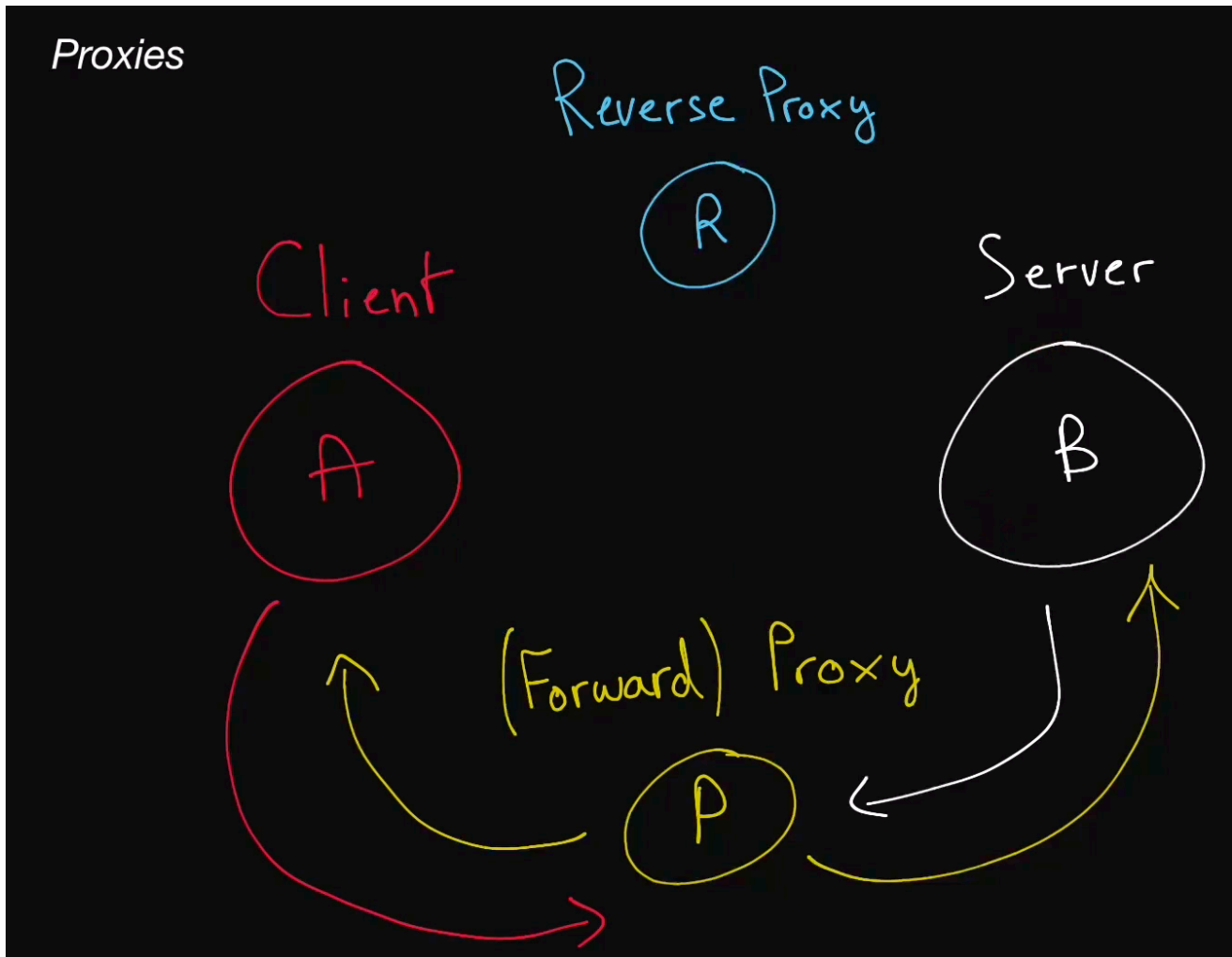4/25/2021 -

Proxies

- (Forward) Proxy

- (Reverse) Proxy

server.js

```javascript
const express = require('express');
const app = express();

app.listen(3000, () => console.log('Listening on port 3000.'));

app.get('/hello', (req, res) => {
  console.log(req.headers);
  res.send('Hello.\n');
});
```

```
Clements-MBP:proxies clementmihailescu$ node server.js
Listening on port 3000.
{ host: 'localhost:3000',
  'user-agent': 'curl/7.54.0',
  accept: '*/*' }
{ 'systemexpert-tutorial': 'true',
  host: 'nodejs-backend',
  connection: 'close',
  'user-agent': 'curl/7.54.0',
  accept: '*/*' }
```

```
Clements-MBP:proxies clementmihailescu$ curl localhost:3000/hello
Hello.
Clements-MBP:proxies clementmihailescu$ curl localhost:8081/hello
Hello.
Clements-MBP:proxies clementmihailescu$
```

nginx.conf

```
events { }

http {
  upstream nodejs-backend {
    server localhost:3000;
  }

  server {
    listen 8081;

    location / {
      proxy_set_header systemsexpert-tutorial true;
      proxy_pass http://nodejs-backend;
    }
  }
}
```

```
Clements-MBP:proxies clementmihailescu$ node server.js
Listening on port 3000.
```

```
Clements-MBP:proxies clementmihailescu$ curl localhost:3000/hello
```

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2 Prerequisites ▲

Client

A machine or process that requests data or service from a server.

Note that a single machine or piece of software can be both a client and a server at the same time. For instance, a single machine could act as a server for end users and as a client for a database.

Server

A machine or process that provides data or service for a client, usually by listening for incoming network calls.

Note that a single machine or piece of software can be both a client and a server at the same time. For instance, a single machine could act as a server for end users and as a client for a database.

3 Key Terms ▲

Forward Proxy

A server that sits between a client and servers and acts on behalf of the client, typically used to mask the client's identity (IP address). Note that forward proxies are often referred to as just proxies.

Reverse Proxy

A server that sits between clients and servers and acts on behalf of the servers, typically used for logging, load balancing, or caching.

Nginx ⚡

Pronounced "engine X"—not "N jinx", Nginx is a very popular webserver that's often used as a **reverse proxy** and **load balancer**.