

gRPC

This JavaScript code sets up a gRPC server and client. The server loads a protocol buffer file defining a `JokeService`, which generates a random joke from a JSON file whenever the `GetJoke` method is called. The client loads the same protocol buffer file and calls the `getJoke` method on the server, receiving and printing the random joke response. This code exemplifies a straightforward implementation of gRPC communication between a server and client in JavaScript.

Server.js

```
const grpc = require('@grpc/grpc-js');
const protoLoader = require('@grpc/proto-loader');

const packageDefinition = protoLoader.loadSync('joke.proto');
const jokePackage = grpc.loadPackageDefinition(packageDefinition);
const jokes = require('./jokes.json');

const server = new grpc.Server();

server.addService(jokePackage.JokeService.service, {
  GetJoke: (call, callback) => {
    const randomJoke = jokes[Math.floor(Math.random() * jokes.length)];
    callback(null, { joke: randomJoke });
  }
});

server.bindAsync('0.0.0.0:3000', grpc.ServerCredentials.createInsecure(), () => {
});
```

```
{
  "dependencies": {
    "@grpc/grpc-js": "^1.10.1",
    "@grpc/proto-loader": "^0.7.10"
  }
}
```

Client.js

```
const grpc = require('@grpc/grpc-js');
const protoLoader = require('@grpc/proto-loader');

const packageDefinition = protoLoader.loadSync('joke.proto');
const jokePackage = grpc.loadPackageDefinition(packageDefinition);

const client = new jokePackage.JokeService(
  'localhost:3000',
  grpc.credentials.createInsecure()
);

client.getJoke({}, (error, response) => {
  if (error) {
    console.error(error);
  } else {
    console.log(response);
  }
});
```

```
{
  "dependencies": {
    "@grpc/grpc-js": "^1.10.1",
    "@grpc/proto-loader": "^0.7.10"
  }
}
```

```
PS C:\Users\DHARMIK\Downloads\edge-grpc\edge-grpc> node .\client.js
{
  joke: "That's not Chuck Norris doing push-ups -- that's Chuck Norris moving the Earth away from the path of a deadly asteroid."
}
PS C:\Users\DHARMIK\Downloads\edge-grpc\edge-grpc> 
```