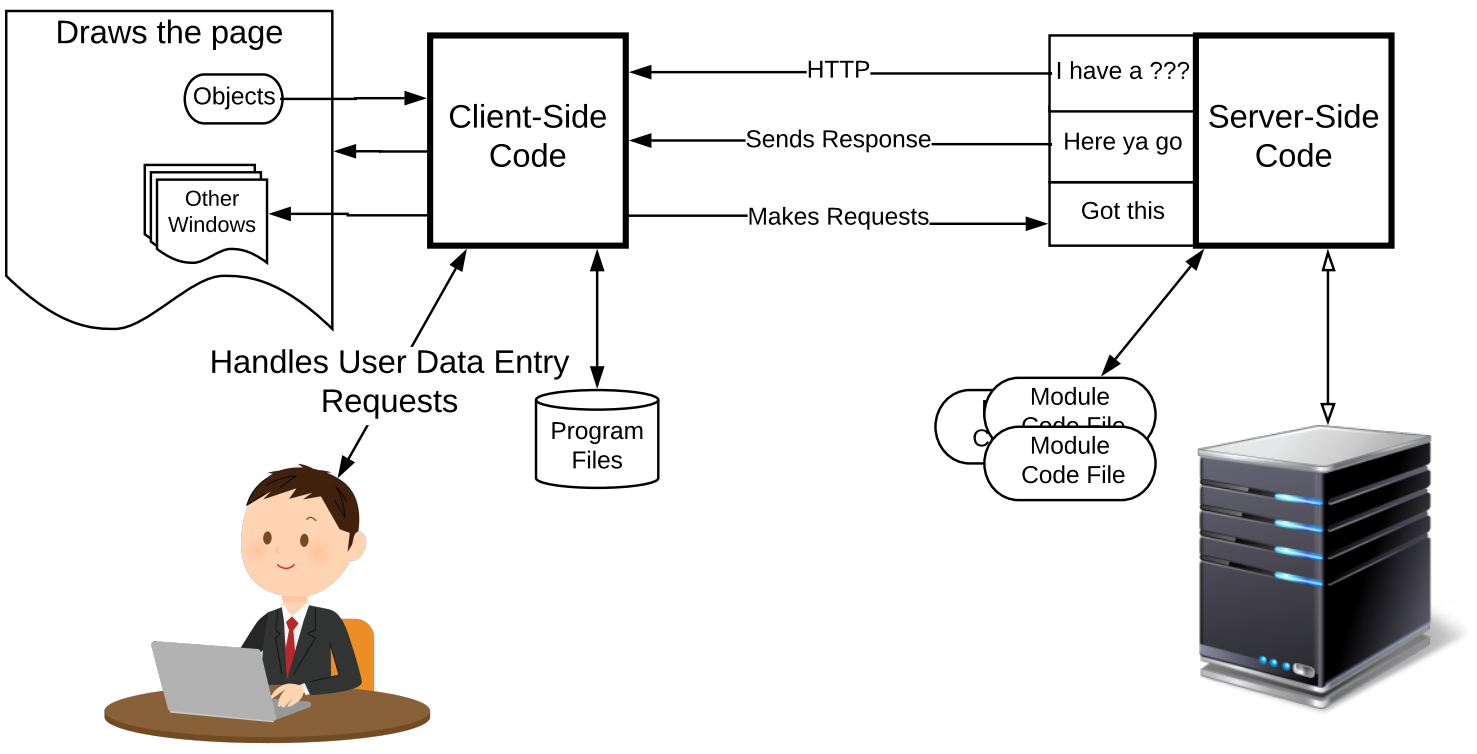
1. In your own words highlight the differences in functionality and purposes **Client-Side** and **Server-Side** code serves in a full-stack web application.

While IT companies think of them as "clients" a better classifications might be users. So the Client side touches and interfaces with the Users, mostly through a web page

The Server-Side is where all the "PC's" went, and the code here is very basic in order to handle user requests. It handles the heavy lifting of getting and processing data, but doesn't worry about formating it for the user.



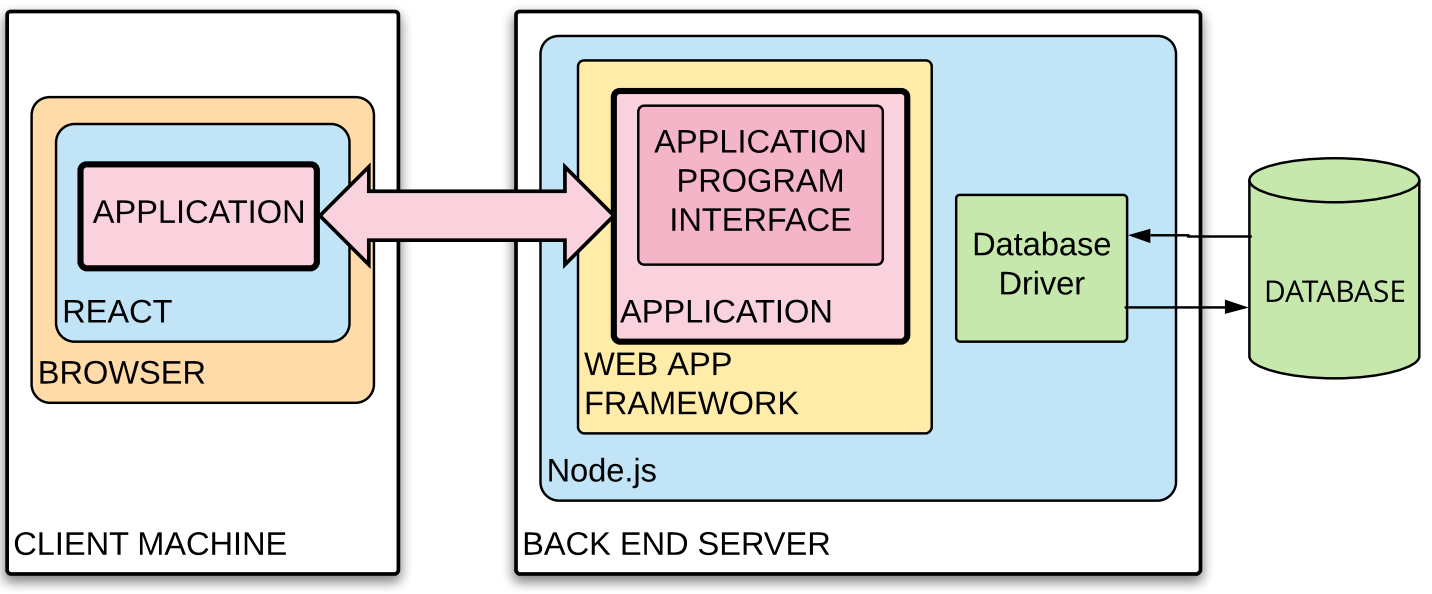
2. What explains Nodes' rise in popularity and use? What does **"Isomorphic JavaScript programming"** mean? Provide some real-world examples not listed in this checkpoint of companies using Node.js.

- **Language re-use** Node.js uses JavaScript both on the server and client side, meaning that developers only have to talk in a single language across all layers.
- **Quick & Easy developer transition** JavaScript is a common ground between web developers, and transitioning a web developer from any other web technology to Node.js takes little time and is fairly easy.
- **Support for object databases** It is really common for Node.js applications to use object databases such as MongoDB.
- **Widespead support from IDEs and code editors** JavaScript, because of its age, has many tools that support extra features particular to the code.
- **Can be hosted almost anywhere** Several web servers and cloud-based hosting providers support hosting of Node.js web applications out-of-the-box, including Google, Microsoft Azure, and Amazon (AWS),

What does **"Isomorphic JavaScript programming"** mean?

Isomorphic JavaScript programming means "similar" JavaScript programming on either "side" of the Client-side and Server-side code. Essentially, it means we can apply JavaScript to both sides.

Provide some real-world examples not listed in this checkpoint of companies using Node.js.

Companies using Node.js: Trello, Walmart, Groupon, Ebay

Draw a **diagram** of a full-stack web application and its key components.