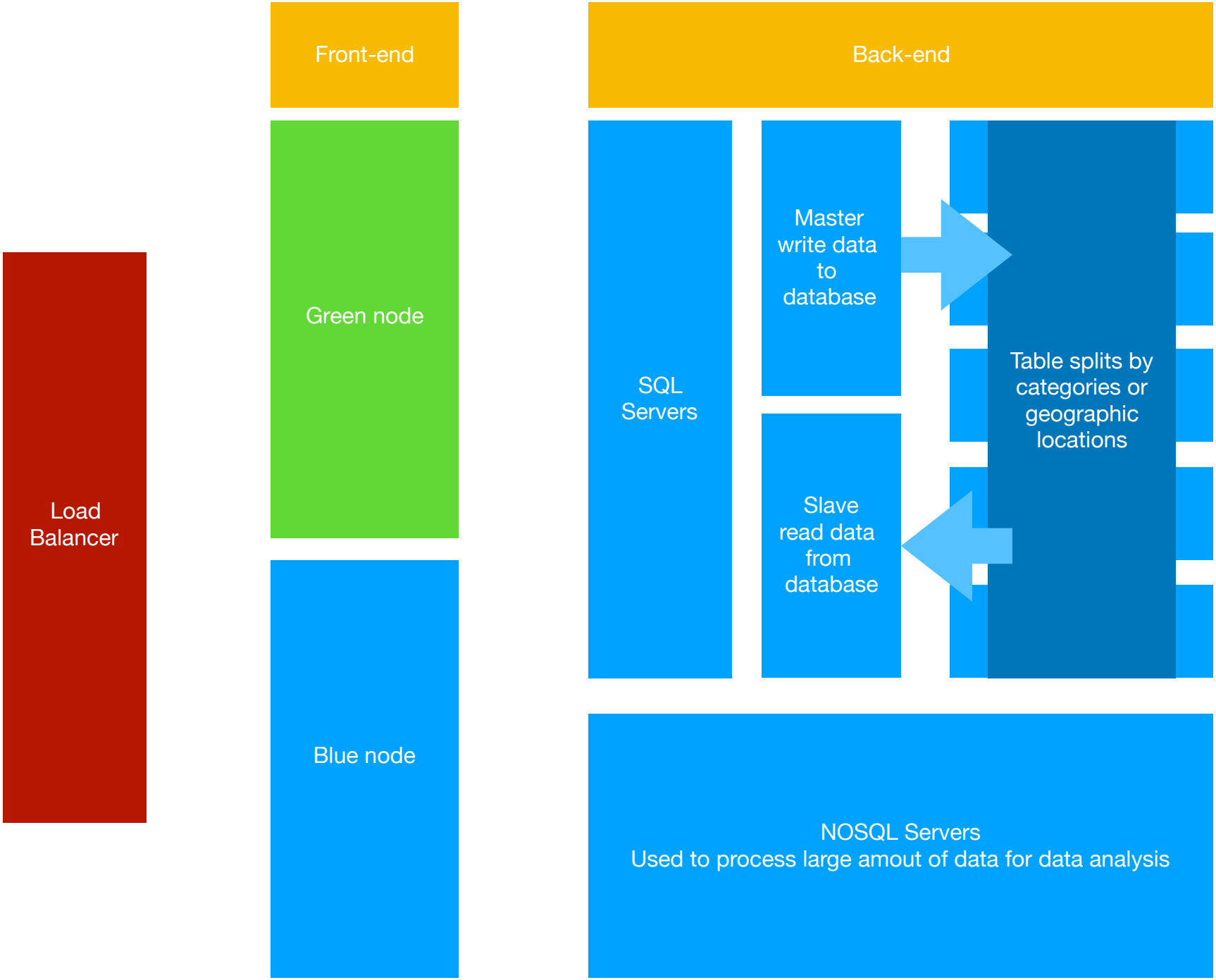
Front-end
Back-end
Load Balancer
Green node
Blue node
SQL Servers
Master write data to database
Slave read data from database
Table splits by categories or geographic locations
NOSQL Servers
Used to process large amout of data for data analysis

We want have a load balancer to handle the extremely heavy traffic to the website. We can have multiple IP addresses, which means multiple servers, for our site, when user send requst to DNS looking for the ip adress of our webpage, we can give user base on current server loadout or based on user location to distribute requests. deploy front end servers using green blue node method. Green node and blue node are same servers. We can use it in two ways. First, we can use one node as back up, when the live node goes offline due to any reason, we can put the other node online to make sure clients can still available to access the web page. Second, when we want to update out web page, we can deploy newer version on the offline node, after finished deployment, switch node to online, therefore we don't have to have down time for our website. For back-end servers, we want to have SQL servers for general processes and NOSQL servers to handle big data analysis. Within SQL servers, use "master-slave" method to handle read and write. slaves can read from database, master can write to databace. slaves can have a cash of data, so read dont need to be blocked when writing data. For SQL database, split tables by categories or by geographic locations. table content have low relations to each other, by split down to multiple tables, we are allowed to perform more reads and writes in the same time.