



Two-Tier Applications

In this lesson, you will learn about the two-tier applications.

We'll cover the following



- Two-tier application
- The need for two-tier applications

Two-tier application#

A **two-tier** application involves a *client* and a *server*. The *client* contains the *user interface* and the *business logic* in one machine. Meanwhile, the backend *server* includes the *database* running on a different machine. The database server is hosted by the business and has control over it.

Why do we need two-tier applications? Why not host the business logic on a different machine and have control over it?

Also, isn't the application code vulnerable to being accessed by a third person?

The need for two-tier

applications#



Well, yes!! However, there are use cases where *two-tier* applications come in handy, for instance, a to-do list app or a similar planner or a productivity app.

In these scenarios, it won't cause the business significant harm, even if the code is accessed by a third person. On the contrary, since the code and the user interface reside in the same machine, there are fewer network calls to the backend server which keeps the latency of the application low. This is an upside!

The application makes a call to the *database* server, only when the user has finished creating their to-do list and wants to persist the changes.

Another good example of this is the online browser and app-based games. The game files are pretty heavy, and they only get downloaded on the client once when the user uses the application for the first time. Moreover, they make the network calls only to keep the game state persistent.

Also, fewer server calls mean less money needs to be spent on the servers which is economical.

Though, if we want to pick this type of tier when writing our service largely depends on our business requirements and the use case.

We can either keep the *user interface* and the *business logic* on the *client* or move the *business logic* to a dedicated *backend server*, which would make it a *three-tier* application. We will discuss it next.

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Three-Tier Applications



Completed

