



# Communication Between the Client and the Server

In this lesson, we will discuss how communication between the client and the server takes place.

## We'll cover the following



- Request-response model
- HTTP protocol
- REST API and API Endpoints
- Real world example of using a REST API

## Request-response model#

The client and the server have a *request-response* model. The client sends the request and the server responds with the data.

If there is no request, there is no response. Pretty simple right?

## HTTP protocol#

The entire communication happens over the *HTTP* protocol. It is the protocol for data exchange over the World Wide Web. *HTTP* protocol is a *request-response* protocol that defines how information is transmitted across the web.

It's a *stateless* protocol, and every process over HTTP is executed independently and has no knowledge of previous processes.



If you want to read more about the protocol, this is a good resource on it (<https://developer.mozilla.org/en-US/docs/Web/HTTP/Overview>)

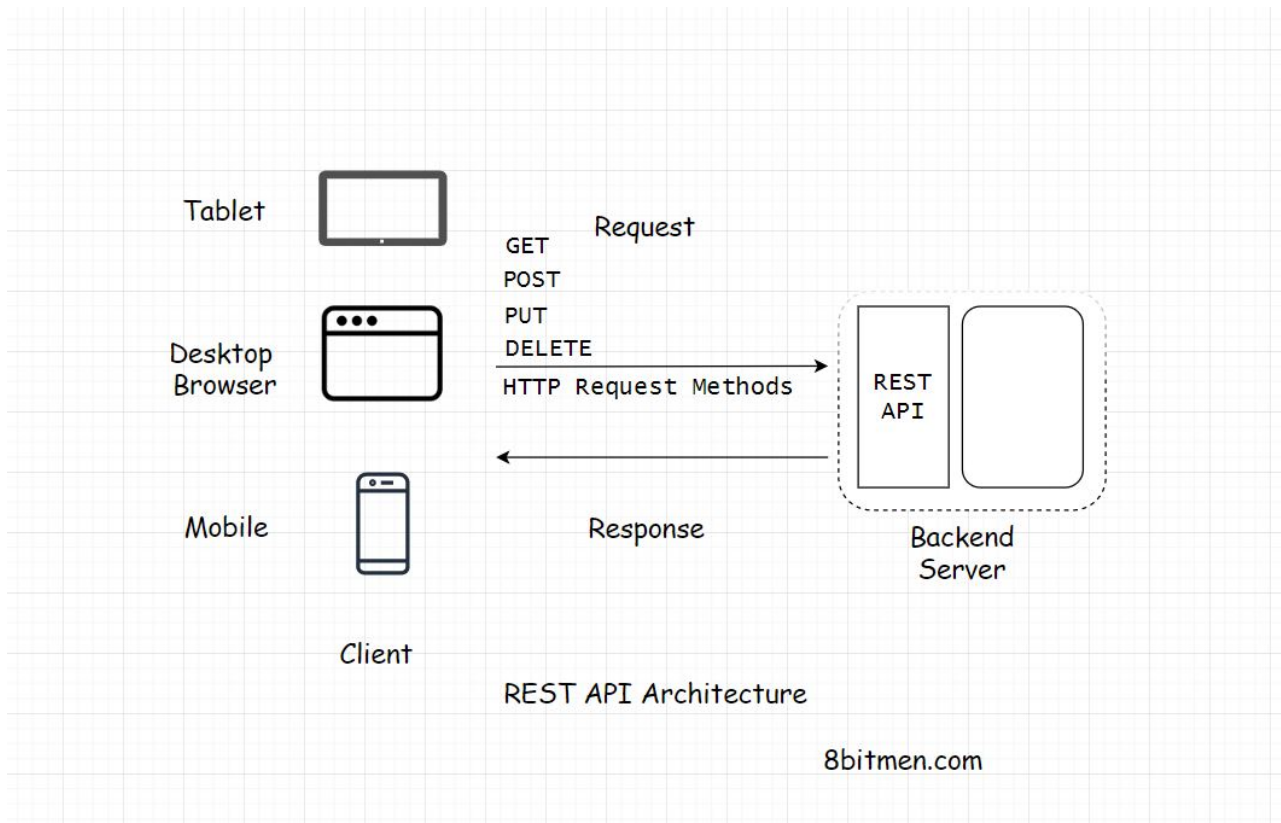
Alright, moving on...

# REST API and API Endpoints#

Speaking from the context of modern N-tier web applications, every client has to hit a *REST endpoint* to fetch the data from the backend.

**Note:** If you aren't aware of the REST API and the API Endpoints, we will discuss it in the next lesson in detail. I've brought up the terms in this lesson just to give you a heads up on how modern distributed web applications communicate.

The backend application code has a *REST-API* implemented. This acts as an interface to the outside world requests. Every request, be it from the client written by the business or the third-party developers that consume our data has to hit the REST-endpoints to fetch the data.



# Real world example of using a REST API#

For instance, let's say we want to write an application to keep track of the birthdays of all our Facebook friends and send us a reminder a couple of days before the event date.

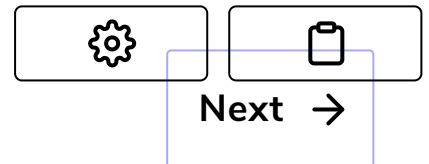
To implement this, the first step would be to get the data of the birthdays of all our Facebook friends.

We would write a client to hit the Facebook Social Graph API which is a REST-API to get the data and then run our business logic on the data.

Implementing a REST-based API has several advantages. Let's delve into it in detail to have a deeper understanding.



Server



Web Architecture Quiz - Part 1

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