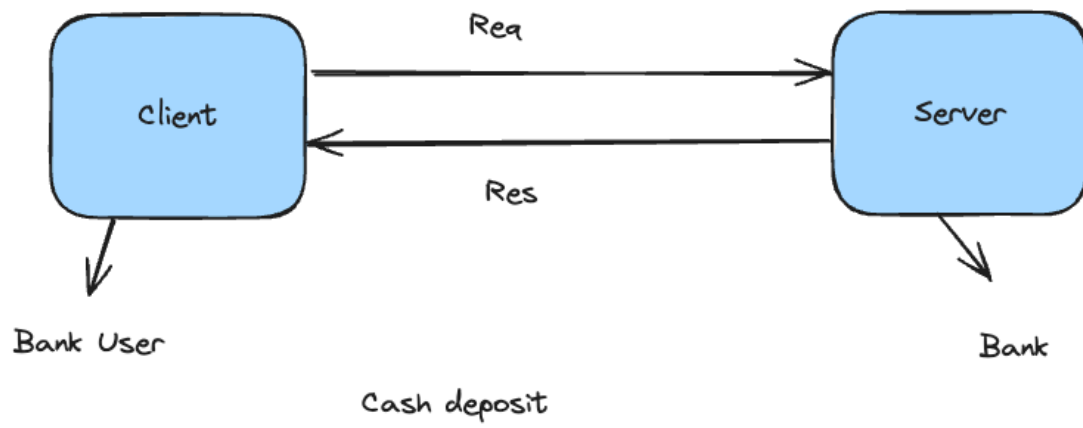
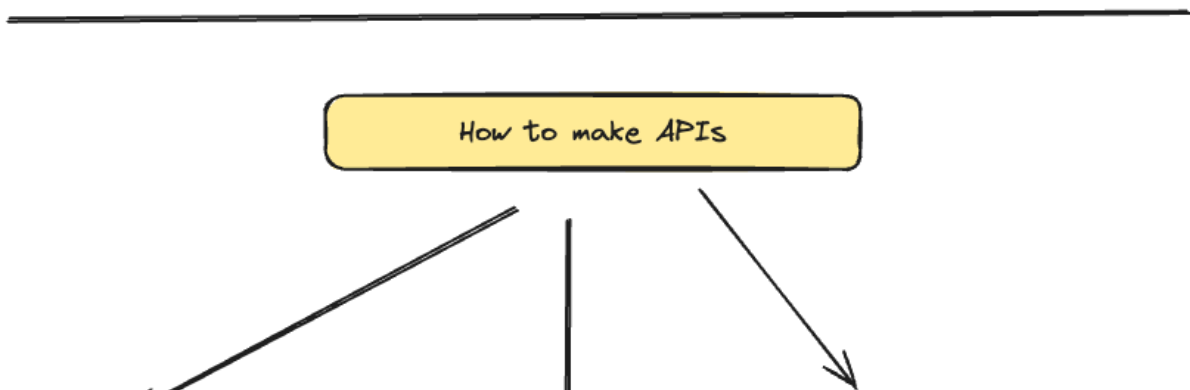
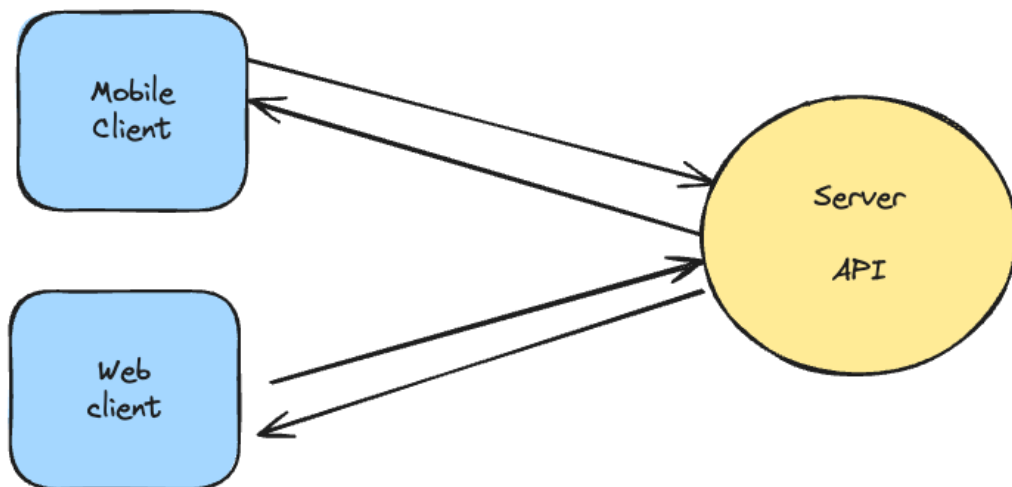


# APIs



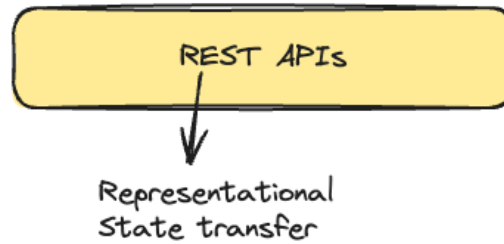
API is nothing but a contract setup by the server which a client needs to follow in order to get a task done.



←  
REST  
APIs

↓  
RPC APIs

GraphQL APIs



1. To send or receive data we use JSON (javascript object notation).
2. REST APIs are implemented around resources. Resources are the main identity of a REST API. The urls of the rest api depends on the resources

ipaddr:port/orders

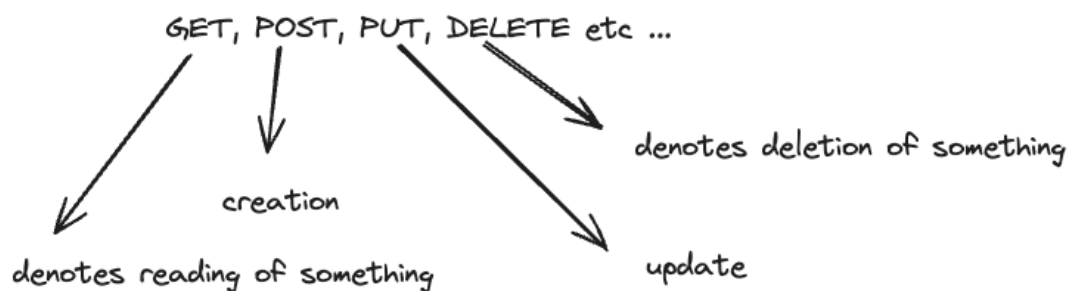
ipaddr:port/users/2/bookings

constant

variable: url params

ipaddr:port/users/:userid/bookings/:bookingid

3. REST recommends you to use HTTP protocol for network interaction. And for defining an API we should use an HTTP verb .



Resource	POST	GET	PUT	DELETE
/customers	Create a new customer	Retrieve all customers	Bulk update of customers	Remove all customers
/customers/1	Error	Retrieve the details for customer 1	Update the details of customer 1 if it exists	Remove customer 1
/customers/1/orders	Create a new order for customer 1	Retrieve all orders for customer 1	Bulk update of orders for customer 1	Remove all orders for customer 1

/customers/13/orders/2

GET --> we want to fetch order with id 2 which belongs to customer with id 13

POST --> Error

DELETE -> we want to delete order with id 2 that belongs to customer 13

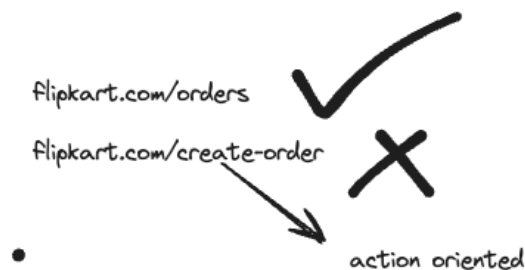
PUT --> we want to update order with id 2 whose customer is 13

- Generally the resources are mentioned in plural form in the urls.

- In the response sent by the server, we should attach a response code (int) which denotes what happened with a request.

- if you want to send big information or sensitive information, send it in req body

- if you want to send some filtering related data then use query params.  
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