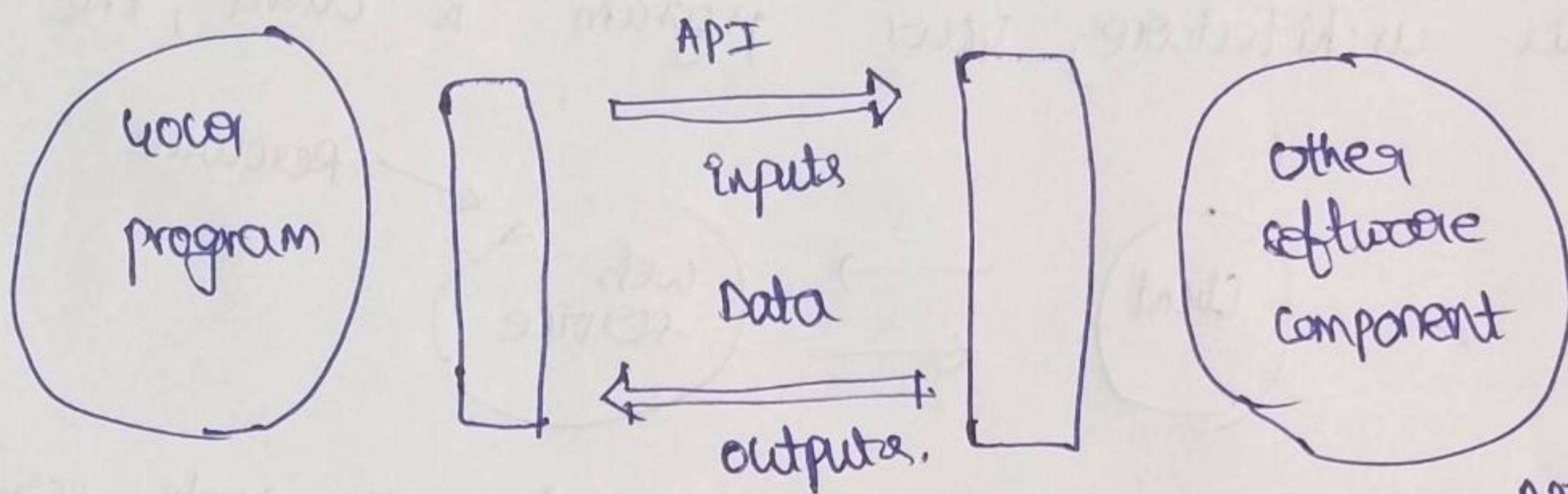
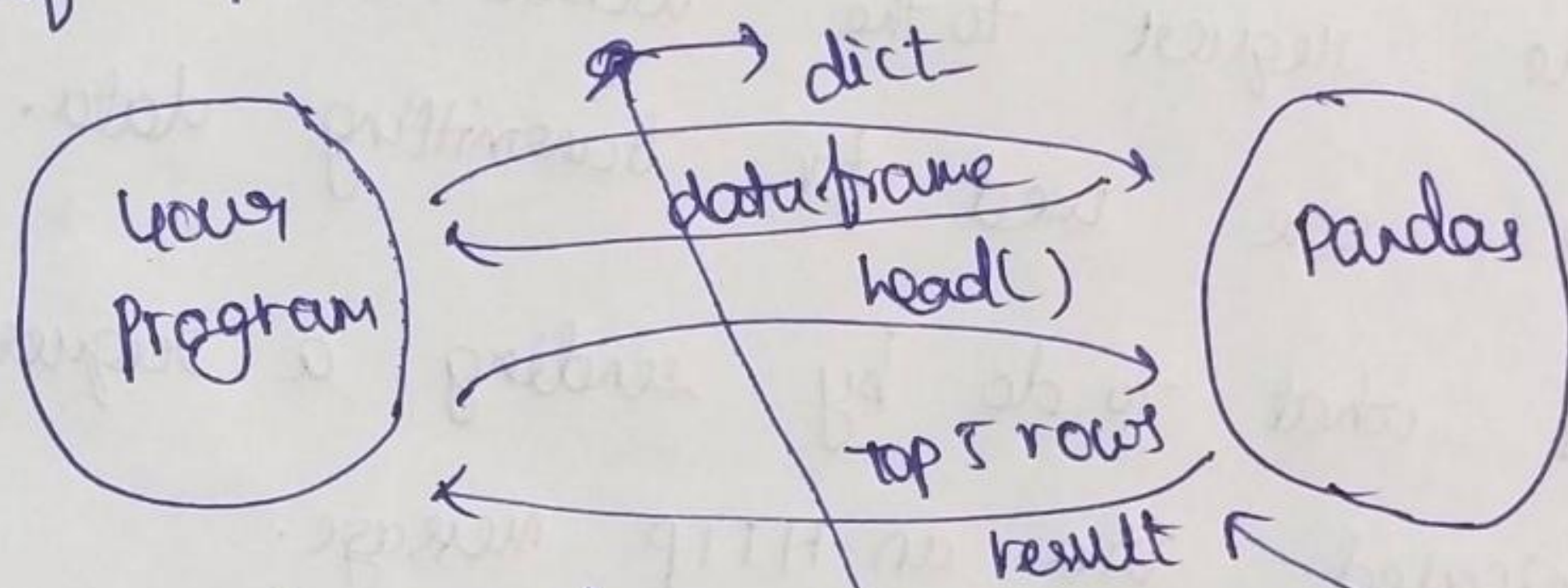


# API (Application programming interface)

\* An API allows two programs to talk to each other.



For example the pandas library in python is an API. Most components of pandas are written in another languages.



```
import pandas as pd
dict_ = {'a': [1, 2, 3], 'b': [1, 2, 3, 2]}
```

```
df = pd.DataFrame(dict_)
```

df.head() → when you call method head() it communicates with pandas API and gives result of top 5 rows.

df.mean() → same as head()

## REST API

REST API are popular APIs that allow you to communicate through internet. They help in storage, access more data and use artificial intelligent algorithms and much more.

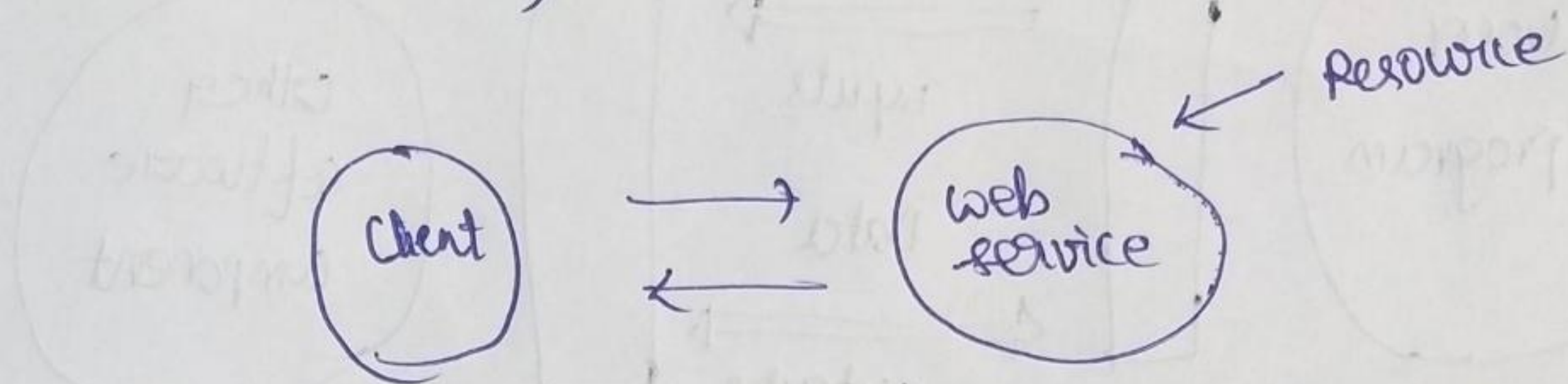


RE - representational

S - state

T - transfer.

In this architecture, your program is client, ~~the~~



REST APIs are used to interact with web services, i.e., applications that you call through the internet.

① The client sends request to the webservice.

② HTTP requests are used for transmitting data.

③ We tell API what to do by sending a request. <sup>request is</sup> ~~it~~ is usually communicated via an HTTP message.

④ The HTTP message usually contains a JSON file. It contains data regarding what operation we would like the service to perform.

⑤ The service performs the operation.

⑥ Now, the web service returns the message via HTTP protocol and the result is JSON file.

Example:-

nba-api: It is a sports API written by: Swar Patel.

This API is always updated from endpoints at nba.com.