API – Application Program Interface

* Set of pre-defined functionalities used to communicate between the two various or similar components/applications.
* Various Interface tools uses various programming language, For all these function calls

For example: Mulesoft uses Java Object Programming concepts.

**How APIs Work? --> 2 concepts**

* Specification describes that how information is exchanged between program.
* The software interface written to that specification

**3 Basic types of API**

1. **Local API**
2. **Web API**
3. **Program API**

**Local APIs-**

* They offers OS or Middleware services to application programs (.Net, TAPI)\

**Web APIs-**

* It’s designed to represent HTML pages & accessed using simple HTTP protocol.
* Web APIs are often called [REST (representational state transfer)](https://searchmicroservices.techtarget.com/definition/REST-representational-state-transfer) or [RESTful](https://searchmicroservices.techtarget.com/definition/RESTful-API) because the publisher of REST interfaces doesn't save any data internally between requests.
* As such, requests from many users can be intermingled as they would be on the internet.

**Program APIs-**

* Program APIs are based on [remote procedure call (RPC)](https://searchmicroservices.techtarget.com/definition/Remote-Procedure-Call-RPC) technology that makes a remote program component appear to be local to the rest of the software.
* [Service oriented architecture (SOA)](https://searchmicroservices.techtarget.com/definition/service-oriented-architecture-SOA) APIs, such as Microsoft's WS-series of APIs, are program APIs.