



# API Hacking - RESTful API

## API Endpoints :

- example.com/api/3/users
- example.com/api/v3/customers
- example.com/api/users
- example.com/users

## Collection: a group of resources such as

```
/api/profiles/users
```

## Subcollection:

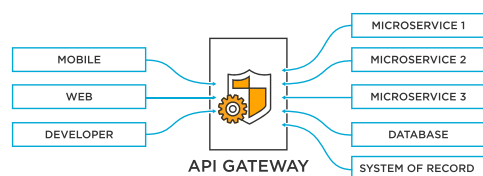
refers to collection within a particular resource

```
/api/users/{user_id}/settings
```

## Gateway:

- filters bad request
- monitor incoming traffic
- route each req. to proper service or microservice

API consumer can request resources from API endpoints, which is a URL for interacting with part of API



## Acronym CRUD

Stands for Create, Read, Update and Delete

- Create a process of making new req. accomplished through POST method
- Read data retrieval, through GET req.
- Update: record modification through POST OR PUT overwritten
- Delete: Erasing record through Delete or POST

## 6 Constraint

Restful API depends on 6 Constants, Rest is essentially a set of guidelines for an HTTP resource-based architecture.

- it also handles security controls such as authentication, encryption in transit using ssl, rate limit, load balancing

## Microservices:

Modular piece of web app that handles a specific function



API Doc. might use colon or square bracket or curly bracket

/api/v2/:customer\_id or  
/api/v2/[customer\_id] or  
/api/v2/{customer\_id}

## Standard web API Types

Restful API:

- Rest stands for representation state transfer
- it is set of Architectural constraint that defines how web should work
- designed to improve upon inefficiencies of other older APIs, such as SOAP API
- Rest API Primarily use the HTTP method GET, POST, PUT & DELETE to accomplish **CRUD**
- Uniform Interface: RestAPI Should have a uniform interface, the req. devices should not matter. All be able to access server in same way
- Client/ Server: RestAPI Should have client/ Server architecture, client are consumer of req. info. while server are provider of that info.
- Stateless: RestAPI should not require stateful communication
- Cacheable: Response from Rest API Provider should indicate whether the response is cacheable
- Layered System: Client should be able to req. data from endpoint without knowing about the underlying server architecture
- Code on Demand (Optional): Allows for code to be sent to the client for execution