



What is  
**JSON Web Token?**



# {Json Web Token}

JWT is an open standard that defines a compact and self-contained way for securely transmitting information between parties as a JSON object. This information can be verified and trusted because it is digitally signed.



# When should you use JSON Web Tokens?

**Authorization:** This is the most common scenario for using JWT.

**Information Exchange:** JWT are a good way of securely transmitting information between parties.



# What is the JSON Web Token structure?

In its compact form, JWT consist of three parts separated by dots ( . ), which are:

**Header**

**Payload**

**Signature**

Therefore, a JWT typically looks like the following.

**xxxxx.yyyyyy.zzzzz**



## Header

```
{  
  "alg" : "HS256"  
  "type" : "JWT"  
}
```

Base64 encoded **x**.y.z





# Payload

The second part of the token is the **payload**, which contains the claims. Claims are statements about an entity (typically, the user) and additional data.

There are three types of claims:

- **Registered** claims
- **Public** claims
- **Private** claims



## Header

```
{  
  "alg" : "HS256"  
  "type" : "JWT"  
}
```



Base64 encode



## Data

```
{  
  "key" : "foo"  
}
```



Base64 encode



**x.y.z**



# Signature

To create the signature part you have to take the encoded header, the encoded payload, a secret, the algorithm specified in the header, and sign that.

For example if you want to use the HMAC SHA256 algorithm, the signature will be created in the following way:

```
HMACSHA256(  
    base64UrlEncode(header) + "." +  
    base64UrlEncode(payload),  
    secret)
```





1 login

username, password

2 validate  
credentials

3 create & sign  
JWT with  
secret

Authorization: Bearer JWT

4 store JWT  
locally

5 /resource/user

Authorization: Bearer JWT

validates  
signature

OK

6 data



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