**What is mean JWT (JSON Web Token)?**

a JSON object that is defined in RFC 7519 as a safe way to represent a set of information between two parties. The token is composed of a header, a payload, and a signature.

**Explain to me the work of each part of the JWT?**

Header:

A dedicated part that identifies itself to the server, shows its type, the hashtag it uses, etc. (This information is available for anyone to read).

Payload:

It is the part that contains the information (claims) taken from the client to the server and it contains the content that the server verifies for authentication (this information is available for anyone to read).

Signature:

A part whose task is to take (Header + Payload) and apply the HMAC algorithm to the two parts. If the attacker changes the Payload, it will conflict with the Signature and will be completely rejected. Here we understand that its function is to confirm authentication (this information is not available for anyone to read).

**Explain to me the work of each part of the header?**

Typ:

Dedicated to the authentication type and since we are using JWT the type will be jwt.

Cty:

To specify the type of the nature of the value you enter, you can make it empty or the default value (jwt).

Alg:

To specify the hmac-hash type, it tells the server the type of Signature that we mentioned earlier. For example, if its value is HS256, the client tells the server that the type of HMAC algorithm used in the type of Signature that we mentioned earlier is HMAC-SHA256, the server can successfully recognize the Signature.

**Explain to me the work of each part of the payload?**

Iss:

The source is to define the source for the server.

Sub:

The subject is the purpose of authentication for the server.

Aud:

Recipient identification is like Authorization, but the only difference is that Authorization specifies what you can do, while aud specifies who you are so that it can identify you.

Exp:

The token expiration time is the most important thing and is considered almost mandatory for security purposes. It specifies when the JWT expires.

Nbf:

Token validity start to specify when the JWT expires.

Iat:

Timestamp to specify the time stamp