Assessment-1.4

JsonWebToken Approaches and its benifits

JSON web Token (JWT) is a openstandard self-contained way for securing transmitting information between parties as a JSON object. This information can be verified and trusted becau it is digitally signed.

JWT can be signed using HMAC (or) RSA.

we would use JWT for different purposes like.

* Authorization.
* Information Exchange.

Authorization:-

This is the most common scenario for using JWT. once the user is logged in, each subsequent request will include the JWT and allowing the user to access routes, services and resources that are permitted wi that token.

Information Exchange:-

JSON web Tokens are a good way of securely transmi information between parties. Because JWTs can be signed. like using public/private key pairs.

The structure of JWT

The JWT's mostly used by the Backend development which is engaged with the databases(i.e., mongodb etc.)

The JWT structure consists of

* Payload
* Header
* Signature.

The payload takes the existed id as the Id of that particular object.

for example:-

```
let payload = {
        anil: {
                id: exist.id
                }
        }
```

For the signature, The structure consists of four parts which are

* payload
* loginkey
* expires time
* error / token.

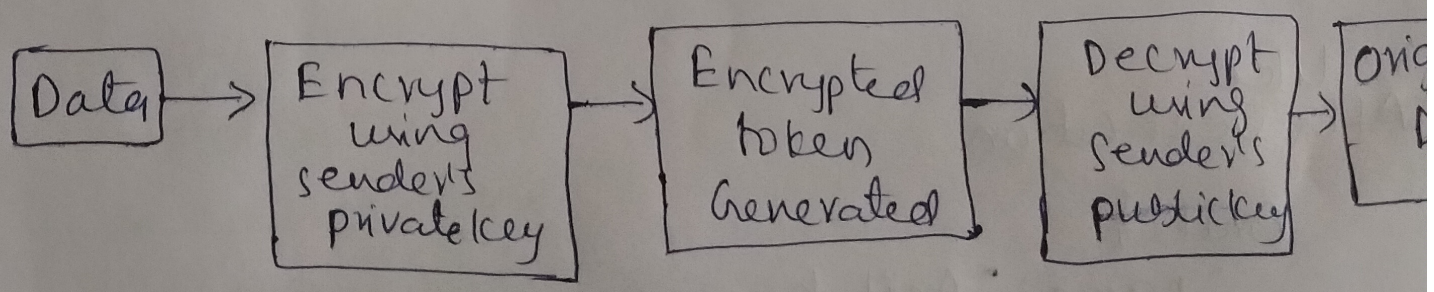
for example:-

```
jwt.sign(payload, "loginkey", {expiresin: 3600},
        (err, token) => {
            if (err) throw err
            return res.json({token})
        });
```

The above code gets the Data if the token is verified and correct token.

The token would be verified by using the Different crypto algorithms like RSA / HMAC etc

The verifing process would be Diagramatically represents below.



The process would be followed like above.

For example:-

If The one object Data would be encrypted like.

The object is

```
Anil:{
    "name": "Anilkumar";
    "no" : "90000xxxxx";
    "Address": "visakhapatnam";
    "profession": "student"
    }
```

After Apply JWT. signature we get a Token like

" JWTKNOQXLMNAXLX1021XLMNOPX1X0A124LMN
WXANOSRANILX012XL3A107X."

By using the Above token we get verified an
we get the our data

like.

After verification.

```
Anil:{
    "name": "Anil kumar
    "no" : "90000xxxxx";
    "Address": "visakhapatnam";
    "profession": "student"
    }
```