Promises in JavaScript

1️⃣ What Are Promises?

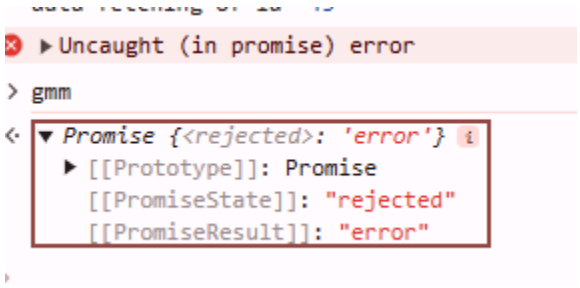
A **Promise** is a JavaScript object. It represents eventual completion of a task in the future, or never. It helps handle **asynchronous operations** in a cleaner way than callbacks.

A Promise has **three states**:
✔️ **Pending** → Initial state, operation not yet completed. Final result has not come yet
✔️ **Fulfilled** → The operation was successful. It also means **RESOLVED**
✔️ **Rejected** → The operation failed. It also means **REJECTED.**

Example 1: Creating a Simple Promise

```
function getData(id)
{
  return new Promise ((resolve, reject) =>
  {
    setTimeout(()=>{
    console.log('data fetching of id ', id);

    //resolve('success');
    reject("error")

  }, 2000);
  })

}

gmm = getData(43)
```

- Remember, the reject or resolve is sent and this determines our status. The message is printed under result of promise and resolve, reject or pending comes under the status



-

- If we need to do some work after resolve we use promise.then and if we need to do some work after rejection then we use promise.catch

```
function getData(id)
{
  return new Promise ((resolve, reject) =>
  {
    setTimeout(()=>{
    console.log('data fetching of id ', id);

    resolve('success'); // value is passed as parameter res in promise.then
    //reject("error")

  }, 2000);
  })

}

gmm = getData(43)

gmm.then((res) =>{
  console.log("resolved!! ", res)
})
```

```
STDIN
Input for the program ( Optiona

Output:

data fetching of id  43
resolved!!  success
```

-

PROMISE CHAINING

```
getData(1)
  .then((res) => {
    return getData(2);
  })
  .then((res) => {
    return getData(3);
  })
  .then((res) => {
    console.log(success);
  });
```

✔️ if ID 1 data receives **Then** → fetch ID 2 data using return

✔️ if ID 2 data receives **Then** → fetch ID 3 data using return

✔️ if ID 3 data receives **Then** → stop chaining using any synchronous command example console.log