Lesson 7 Demo 1

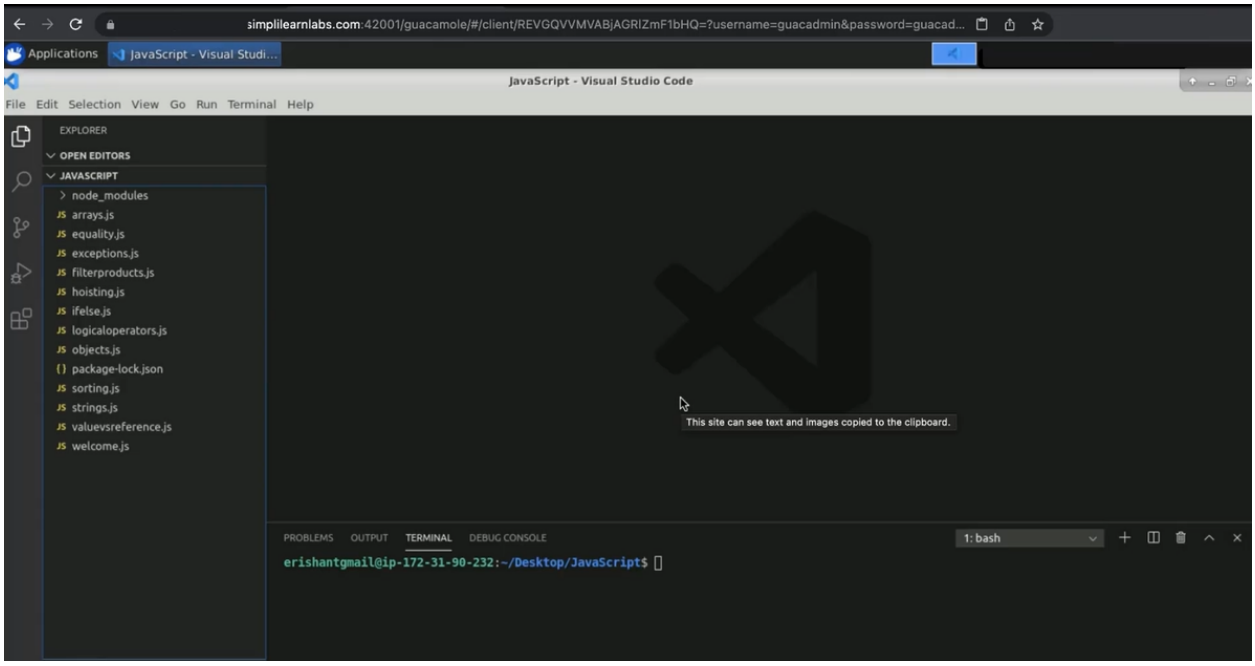
Async Programming in JS

Objective: To work with async programming in JS

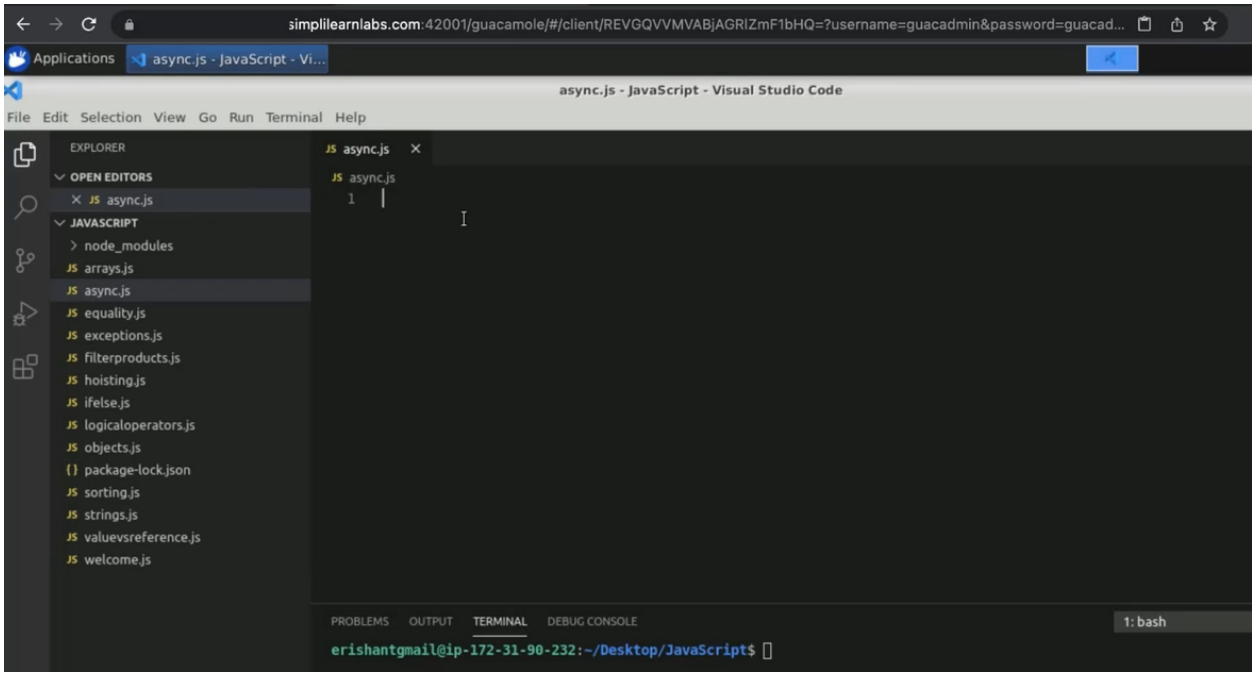
Prerequisites: None

Steps to perform:

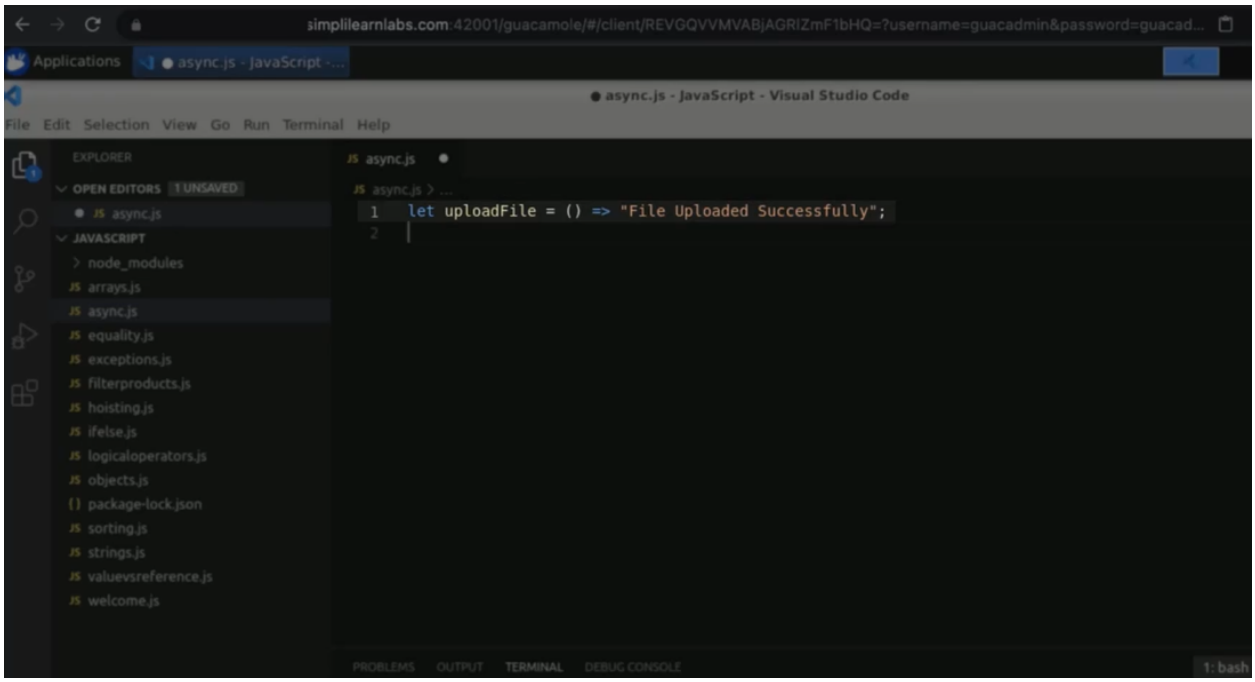
1. Open the visual studio code



2. Create a file name async.js

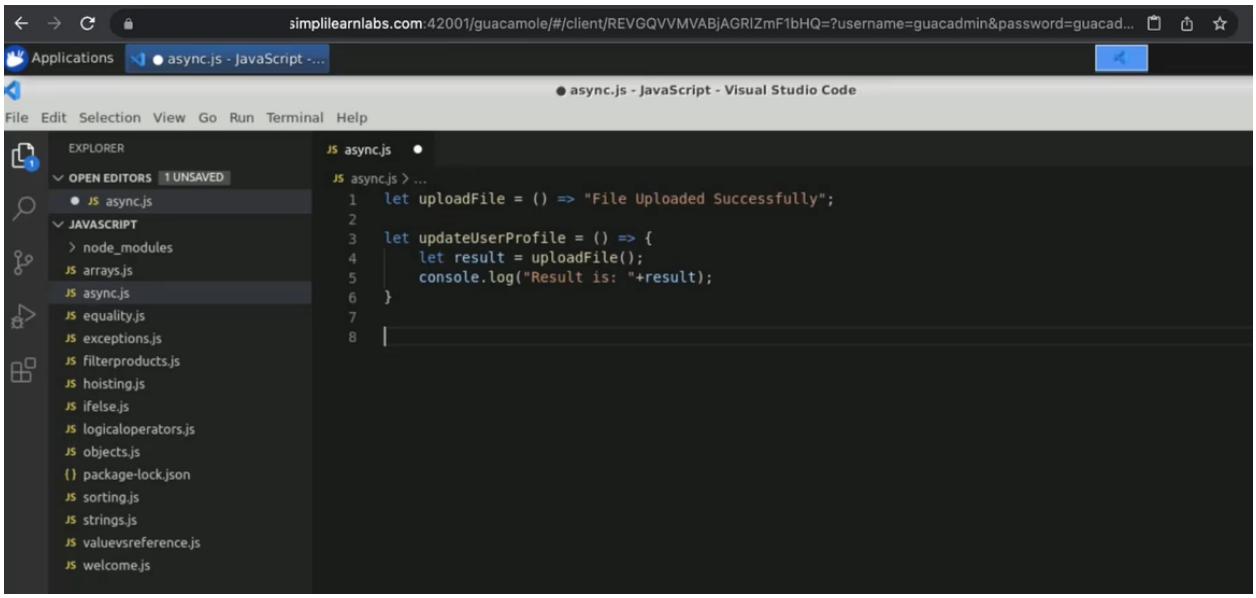


3. Create a function to upload a file. Enter 'let uploadFile = () => "File Uploaded Successfully";'.

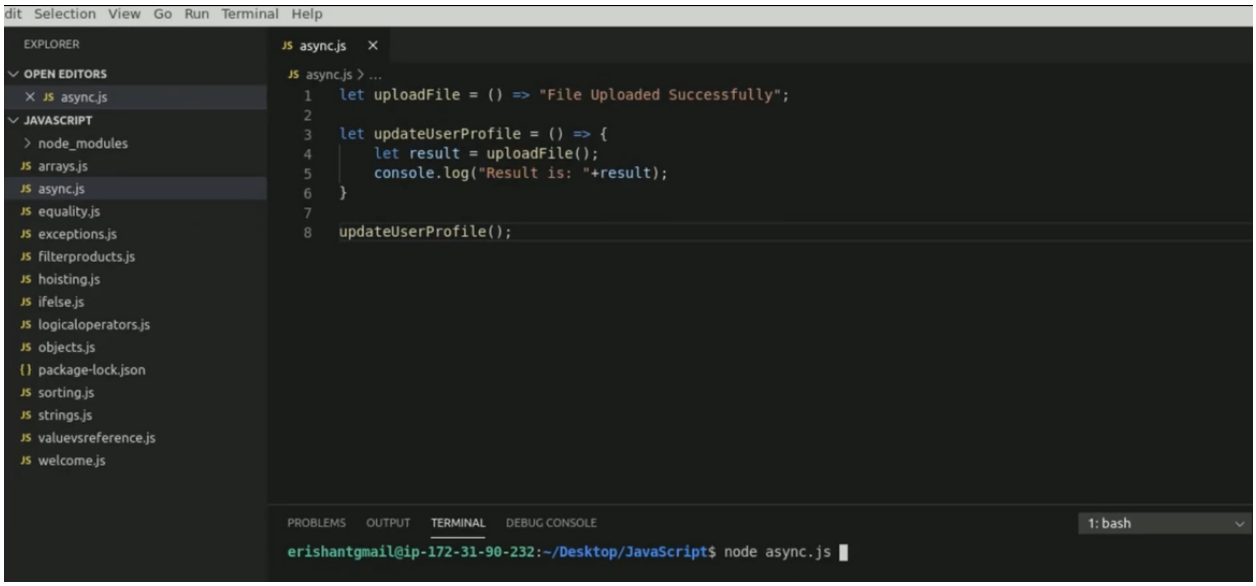


4. Create one more function.

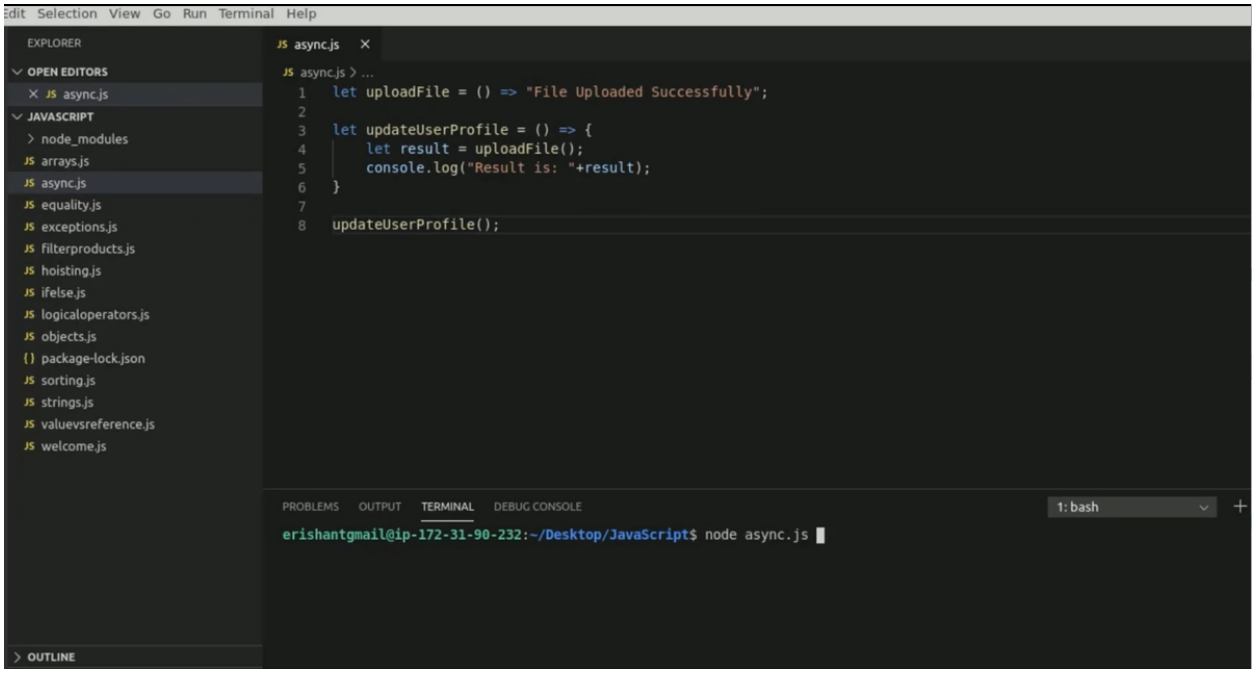
   Enter ‘let updateUserProfile = () => {
   let result = uploadFile();
   console.log(“Result is: “+result);
   }



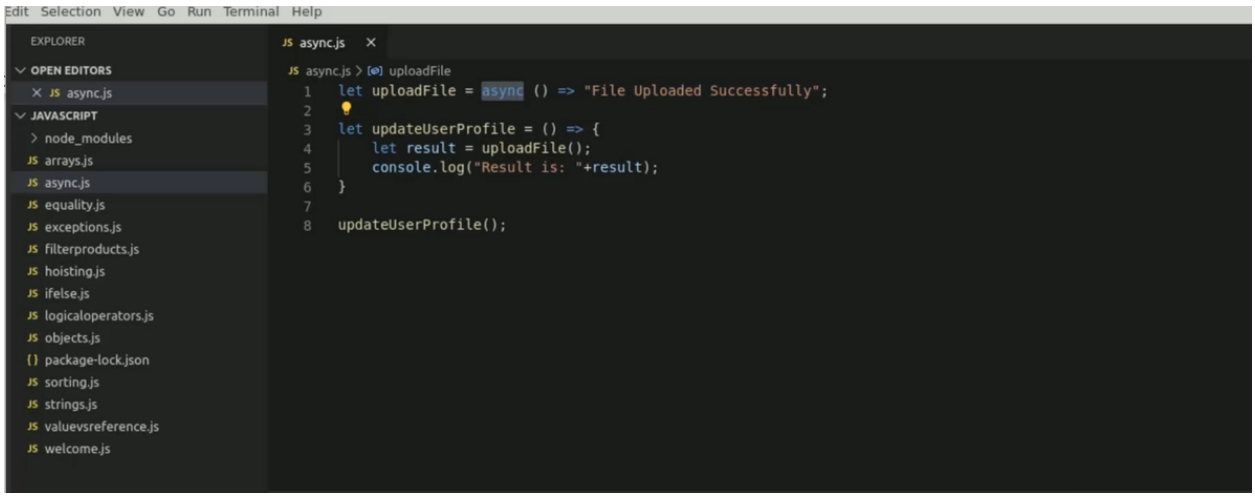
5. Execute updateUserProfile() method.



6. Enter ‘node async.js’ in terminal.



7. Enter ‘async’ keyword with uploadFile() function.



8. Run the code in terminal.

```
PROBLEMS  OUTPUT  TERMINAL  DEBUG CONSOLE                    1: bash
erishantgmail@ip-172-31-90-232:~/Desktop/JavaScript$ node async.js
Result is: File Uploaded Successfully
erishantgmail@ip-172-31-90-232:~/Desktop/JavaScript$ node async.js
Result is: [object Promise]
erishantgmail@ip-172-31-90-232:~/Desktop/JavaScript$
```

9. Add another method. Enter result.then(
   (value) => console.log("Value is: "+value);
   );

async.js

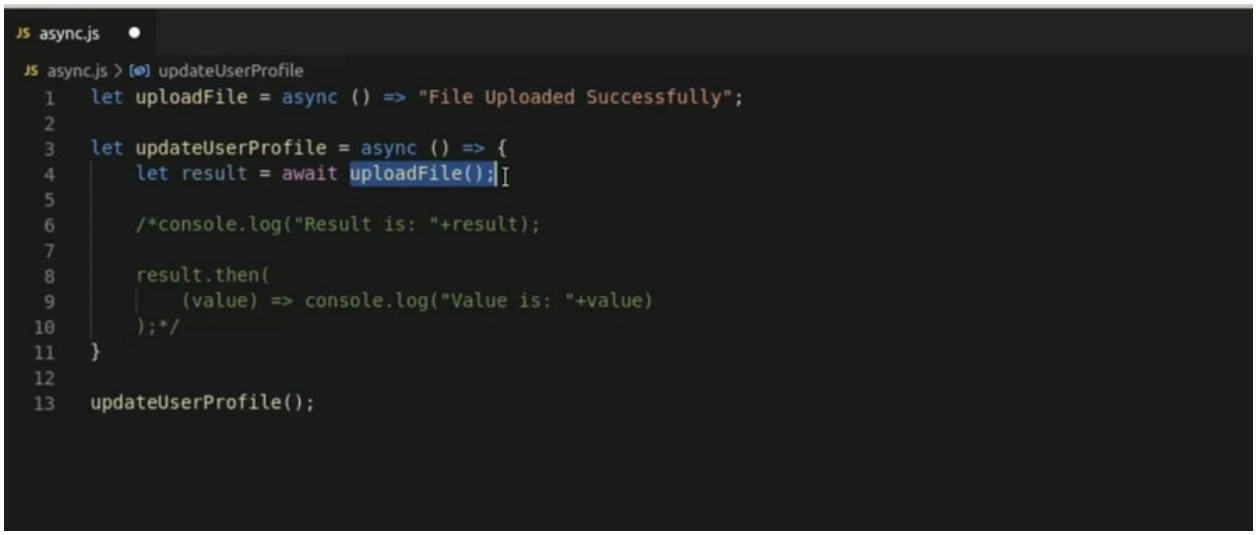
```
1   let uploadFile = async () => "File Uploaded Successfully";
2
3   let updateUserProfile = () => {
4       let result = uploadFile();
5       console.log("Result is: "+result);
6
7       result.then(
8           (value) => console.log("Value is: "+value);
9       );
10  }
11
12  updateUserProfile();
```

10. Run the code in terminal.

```
PROBLEMS  OUTPUT  TERMINAL  DEBUG CONSOLE                    1: bash
erishantgmail@ip-172-31-90-232:~/Desktop/JavaScript$ node async.js
Result is: File Uploaded Successfully
erishantgmail@ip-172-31-90-232:~/Desktop/JavaScript$ node async.js
Result is: [object Promise]
erishantgmail@ip-172-31-90-232:~/Desktop/JavaScript$ node async.js
Result is: [object Promise]
Value is: File Uploaded Successfully
erishantgmail@ip-172-31-90-232:~/Desktop/JavaScript$
```

11. Enter 'async' keyword with updateUserProfile() function.

12. Enter ‘await’ in result upload file function().



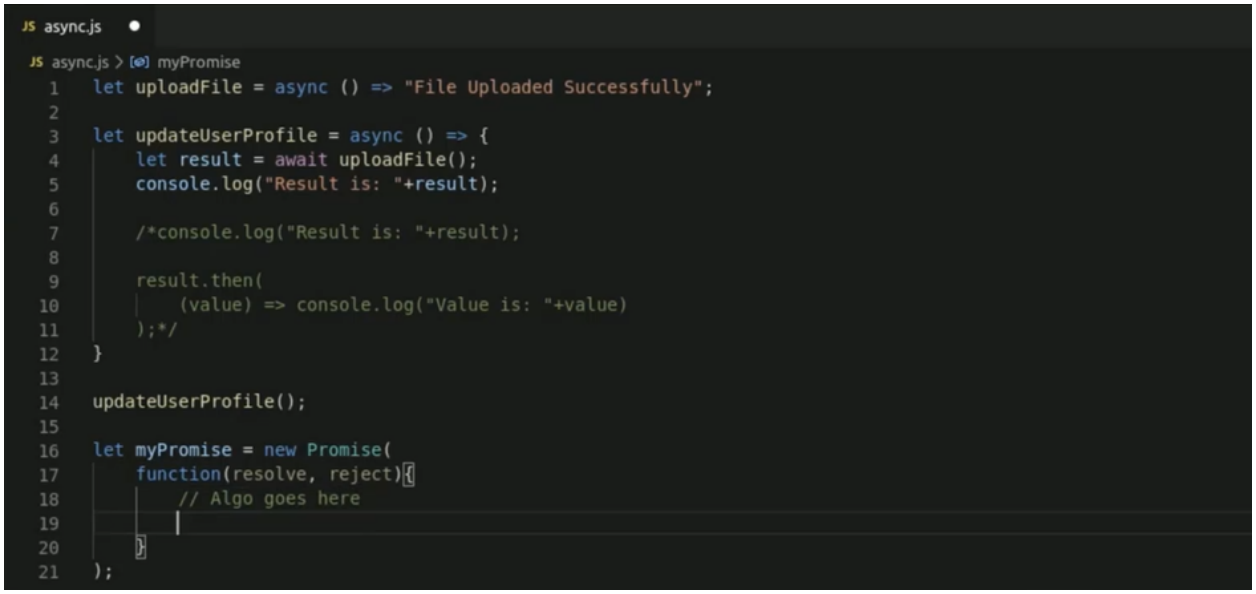
13. Enter ‘console.log(“Result is: “+result);.

```
async.js
async.js > updateUserProfile
1  let uploadFile = async () => "File Uploaded Successfully";
2
3  let updateUserProfile = async () => {
4      let result = await uploadFile();
5      console.log("Result is: "+result);
6
7      /*console.log("Result is: "+result);
8
9      result.then(
10         (value) => console.log("Value is: "+value)
11     );*/
12 }
13
14 updateUserProfile();
```

14. Run the code in terminal.

```
PROBLEMS  OUTPUT  TERMINAL  DEBUG CONSOLE                    1: bash
erishantgmail@ip-172-31-90-232:~/Desktop/JavaScript$ node async.js
Result is: File Uploaded Successfully
erishantgmail@ip-172-31-90-232:~/Desktop/JavaScript$ node async.js
Result is: [object Promise]
erishantgmail@ip-172-31-90-232:~/Desktop/JavaScript$ node async.js
Result is: [object Promise]
Value is: File Uploaded Successfully
erishantgmail@ip-172-31-90-232:~/Desktop/JavaScript$ node async.js
Result is: File Uploaded Successfully
```

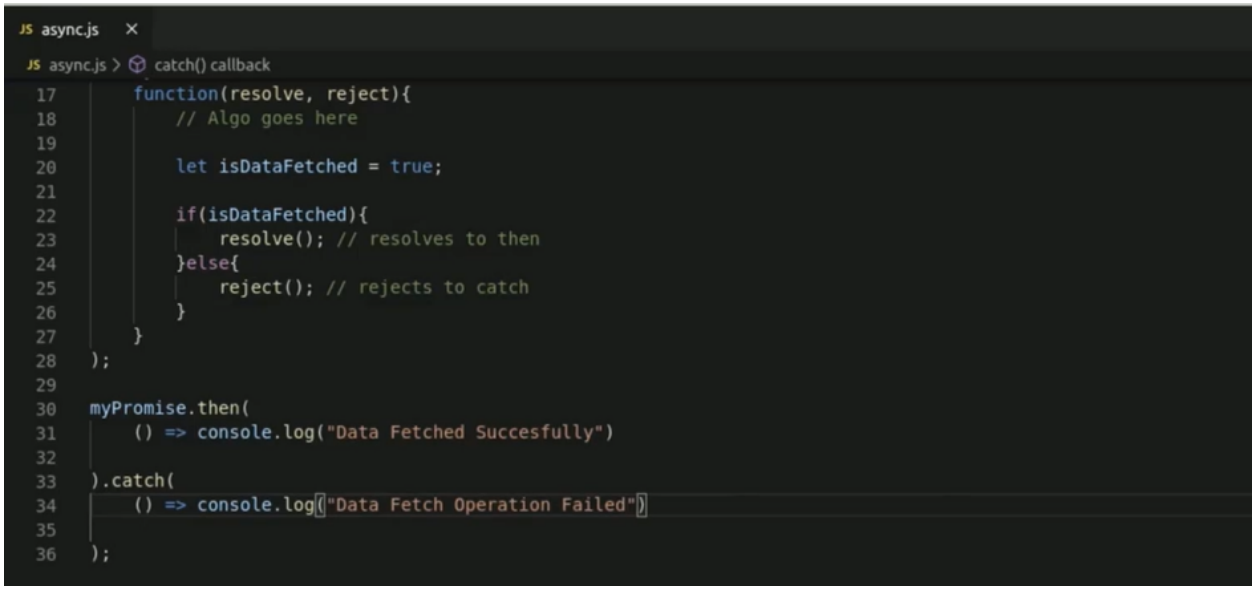
15. Create new promise object. Enter ‘ let myPromise = new Promise(function(resolve, reject){ }.



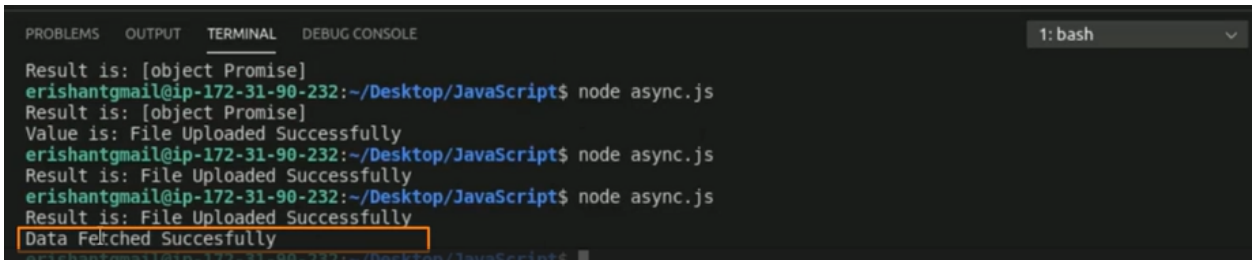
16. Inside {}, Enter '//Algo goes here

```
let isDataFetched =true;
if (isDataFetched){
   resolve();
 }else{
    reject();
 }.
```

17. Enter ‘myPromise.then(
() => console.log(“Data Fetched Successfully”)
).catch(
() => console.log(“Data Fetched Operation Failed”)
);.



18. Run the code in terminal.



19. Enter ‘isDataFetched = False;’.

```
async.js
async.js > myPromise > <function> > isDataFetched
17      function(resolve, reject){
18          // Algo goes here
19
20          let isDataFetched = false;
21                                          false                    false
22          if(isDataFetched){
23              resolve(); // resolves to then
24          }else{
25              reject(); // rejects to catch
26          }
27      }
28  );
29
30  myPromise.then(
31      () => console.log("Data Fetched Succesfully")
32
33  ).catch(
34      () => console.log("Data Fetch Operation Failed")
35
36  );
```

20. Run the code in terminal.

```
PROBLEMS  OUTPUT  TERMINAL  DEBUG CONSOLE                    1: bash
Value is: File Uploaded Successfully
erishantgmail@ip-172-31-90-232:~/Desktop/JavaScript$ node async.js
Result is: File Uploaded Successfully
erishantgmail@ip-172-31-90-232:~/Desktop/JavaScript$ node async.js
Result is: File Uploaded Successfully
Data Fetched Succesfully
erishantgmail@ip-172-31-90-232:~/Desktop/JavaScript$ node async.js
Result is: File Uploaded Successfully
Data Fetch Operation Failed
erishantgmail@ip-172-31-90-232:~/Desktop/JavaScript$
```