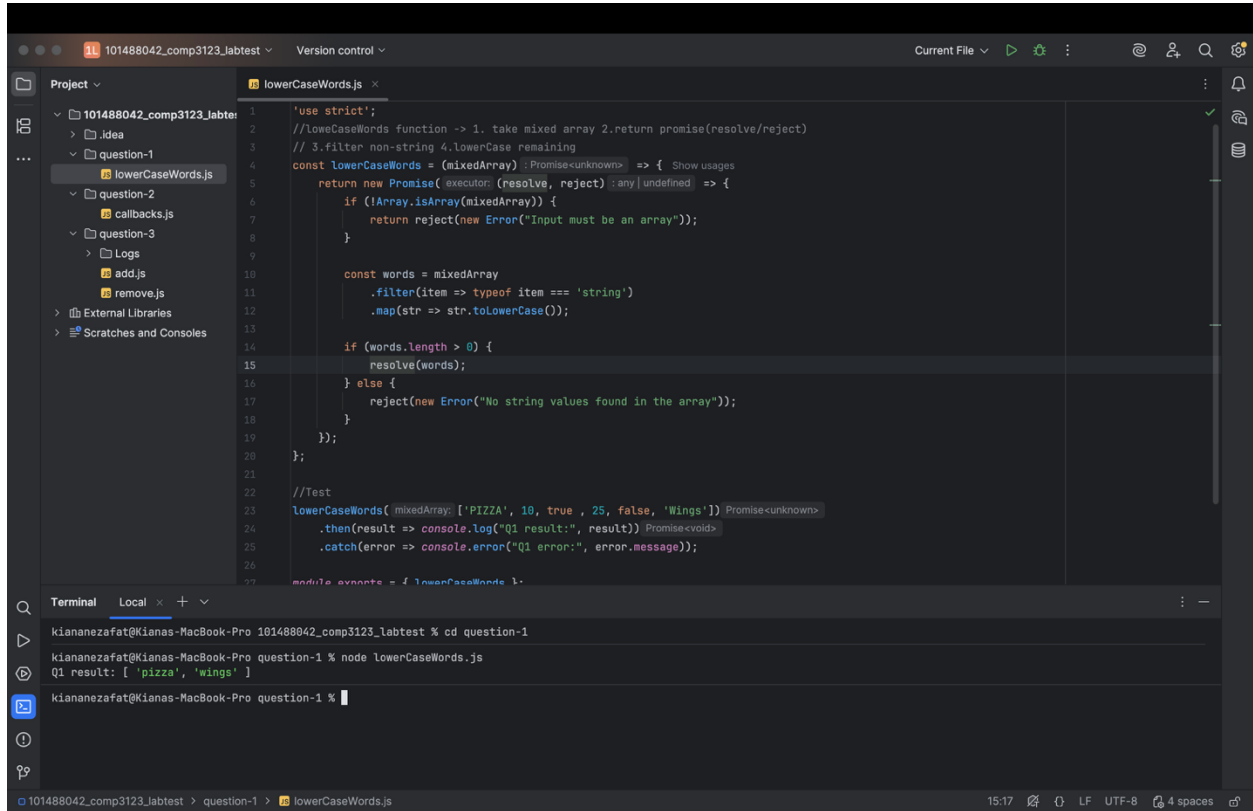


101488042_comp3123_labtest1

Kiana Nezafat Yazdi

Q1:



The screenshot shows an IDE with a project named '101488042_comp3123_labtest1'. The file explorer on the left shows a directory structure with 'question-1' containing 'lowerCaseWords.js'. The main editor displays the code for 'lowerCaseWords.js'.

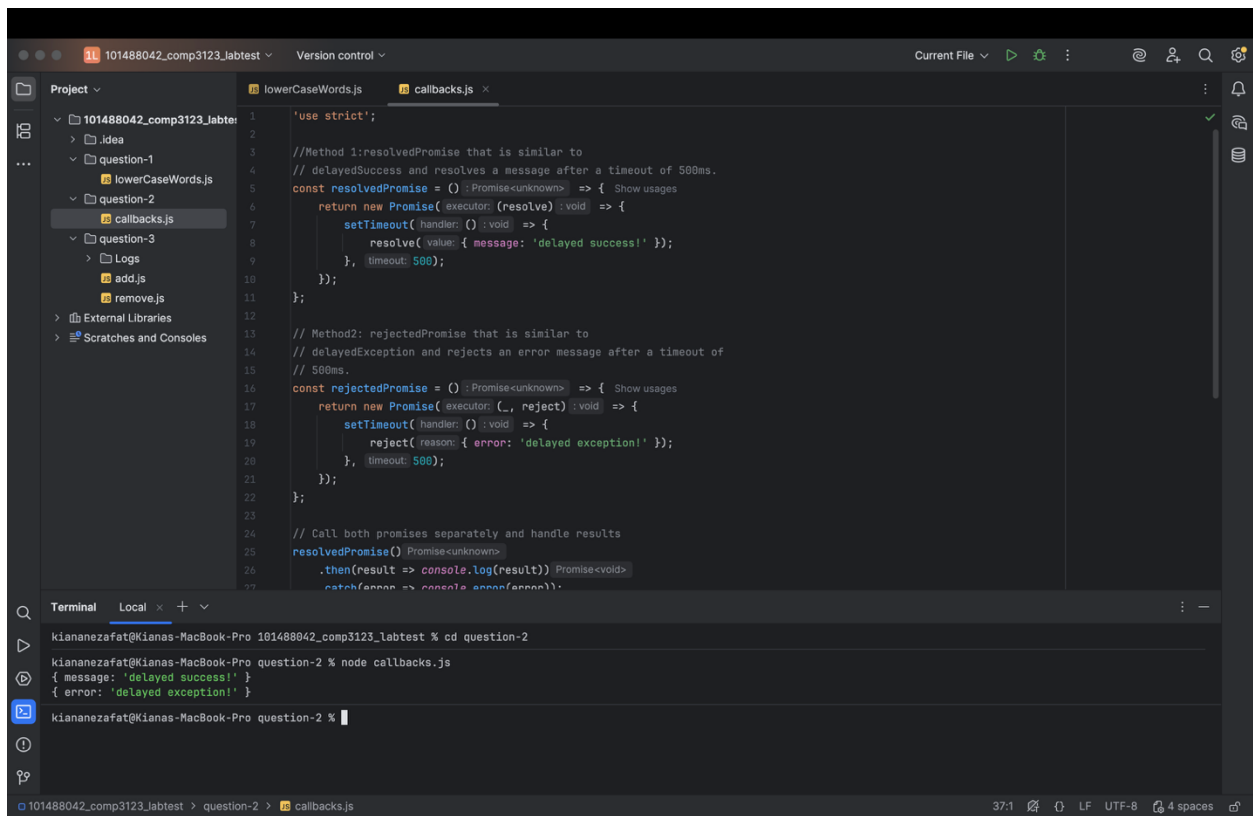
```
1 'use strict';
2 //lowerCaseWords function -> 1. take mixed array 2.return promise(resolve/reject)
3 // 3.filter non-string 4.lowerCase remaining
4 const lowerCaseWords = (mixedArray) : Promise<unknown> => { Show usages
5   return new Promise( {executor: (resolve, reject) : any|undefined => {
6     if (!Array.isArray(mixedArray)) {
7       return reject(new Error("Input must be an array"));
8     }
9
10    const words = mixedArray
11      .filter(item => typeof item === 'string')
12      .map(str => str.toLowerCase());
13
14    if (words.length > 0) {
15      resolve(words);
16    } else {
17      reject(new Error("No string values found in the array"));
18    }
19  });
20 };
21
22 //Test
23 lowerCaseWords( mixedArray: ['PIZZA', 10, true, 25, false, 'Wings']) Promise<unknown>
24   .then(result => console.log("Q1 result:", result)) Promise<void>
25   .catch(error => console.error("Q1 error:", error.message));
26
27 module exports = { lowerCaseWords };
```

The terminal window at the bottom shows the following commands and output:

```
kiananezafat@Kianas-MacBook-Pro 101488042_comp3123_labtest % cd question-1
kiananezafat@Kianas-MacBook-Pro question-1 % node lowerCaseWords.js
Q1 result: [ 'pizza', 'wings' ]
kiananezafat@Kianas-MacBook-Pro question-1 %
```

The status bar at the bottom indicates the file is 'lowerCaseWords.js' in the 'question-1' directory, with a timestamp of 15:17, encoding of UTF-8, and 4 spaces.

Q2:



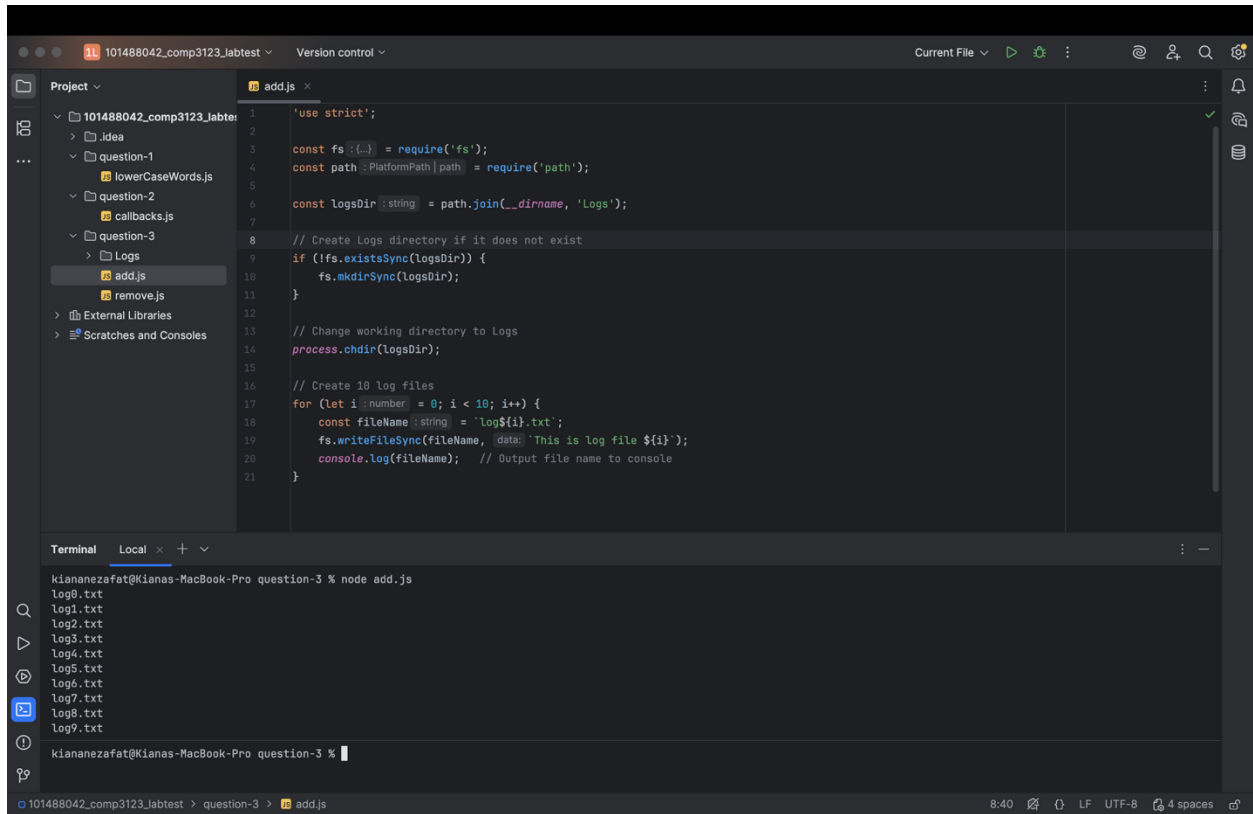
The screenshot shows a code editor with a file named `callbacks.js` open. The code defines two Promise methods: `resolvedPromise` and `rejectedPromise`, both using `setTimeout` to delay execution. The `resolvedPromise` method resolves with a message 'delayed success!', and the `rejectedPromise` method rejects with an error 'delayed exception!'. Both methods are then called and their results are logged to the console.

```
1 'use strict';
2
3 //Method 1:resolvedPromise that is similar to
4 // delayedSuccess and resolves a message after a timeout of 500ms.
5 const resolvedPromise = () : Promise<unknown> => { Show usages
6   return new Promise<(executor: (resolve) :void => {
7     setTimeout( handlers: () :void => {
8       resolve( value: { message: 'delayed success!' });
9     }, timeout: 500);
10  });
11 };
12
13 // Method2: rejectedPromise that is similar to
14 // delayedException and rejects an error message after a timeout of
15 // 500ms.
16 const rejectedPromise = () : Promise<unknown> => { Show usages
17   return new Promise<(executor: (_, reject) :void => {
18     setTimeout( handlers: () :void => {
19       reject( reason: { error: 'delayed exception!' });
20     }, timeout: 500);
21  });
22 };
23
24 // Call both promises separately and handle results
25 resolvedPromise() .Promise<unknown>
26   .then(result => console.log(result)) Promise<void>
27   .catch(error => console.error(error));
```

The terminal window shows the output of the command `node callbacks.js` executed in the `question-2` directory:

```
kiananezafat@Kianas-MacBook-Pro 101488042_comp3123_labtest % cd question-2
kiananezafat@Kianas-MacBook-Pro question-2 % node callbacks.js
{ message: 'delayed success!' }
{ error: 'delayed exception!' }
```

Q3(Add):



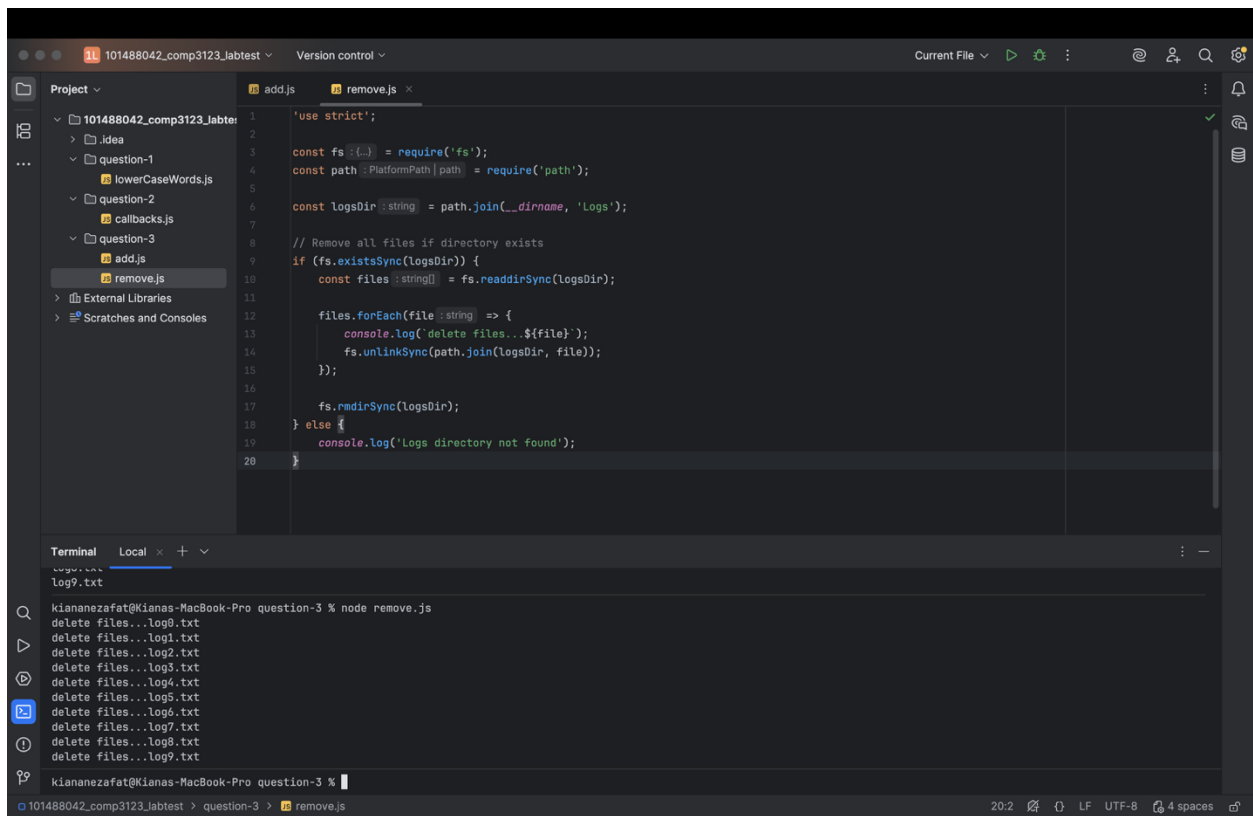
The screenshot shows an IDE window with a project named '101488042_comp3123_labtest'. The file explorer on the left shows a directory structure with 'question-3' containing 'add.js' and 'remove.js'. The main editor displays the content of 'add.js', which is a JavaScript script that creates a 'Logs' directory and generates 10 log files named 'log0.txt' through 'log9.txt'. The terminal at the bottom shows the command 'node add.js' being executed, resulting in the creation of all 10 log files.

```
1 'use strict';
2
3 const fs = require('fs');
4 const path = require('path');
5
6 const logsDir = path.join(__dirname, 'Logs');
7
8 // Create Logs directory if it does not exist
9 if (!fs.existsSync(logsDir)) {
10   fs.mkdirSync(logsDir);
11 }
12
13 // Change working directory to Logs
14 process.chdir(logsDir);
15
16 // Create 10 log files
17 for (let i = 0; i < 10; i++) {
18   const fileName = `log${i}.txt`;
19   fs.writeFileSync(fileName, `This is log file ${i}`);
20   console.log(fileName); // Output file name to console
21 }
```

Terminal output:

```
kiananezafat@Kianas-MacBook-Pro question-3 % node add.js
log0.txt
log1.txt
log2.txt
log3.txt
log4.txt
log5.txt
log6.txt
log7.txt
log8.txt
log9.txt
kiananezafat@Kianas-MacBook-Pro question-3 %
```

Q3(Remove):



The screenshot shows an IDE window with a project named '101488042_comp3123_labtest'. The file explorer on the left shows a directory structure with 'question-3' containing 'add.js' and 'remove.js'. The 'remove.js' file is open in the editor, showing the following code:

```
1 'use strict';
2
3 const fs = require('fs');
4 const path = require('path');
5
6 const logsDir = path.join(__dirname, 'Logs');
7
8 // Remove all files if directory exists
9 if (fs.existsSync(logsDir)) {
10   const files = fs.readdirSync(logsDir);
11
12   files.forEach(file => {
13     console.log(`delete files...${file}`);
14     fs.unlinkSync(path.join(logsDir, file));
15   });
16
17   fs.rmdirSync(logsDir);
18 } else {
19   console.log('Logs directory not found');
20 }
```

The terminal at the bottom shows the command 'node remove.js' being executed, resulting in the following output:

```
kiananezafat@Kianas-MacBook-Pro question-3 % node remove.js
delete files...log0.txt
delete files...log1.txt
delete files...log2.txt
delete files...log3.txt
delete files...log4.txt
delete files...log5.txt
delete files...log6.txt
delete files...log7.txt
delete files...log8.txt
delete files...log9.txt
kiananezafat@Kianas-MacBook-Pro question-3 %
```

The status bar at the bottom indicates the file is 'remove.js' in the 'question-3' directory, with a file encoding of 'UTF-8' and 4 spaces.