

Front-end Advanced

Training Assignment

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RECORD OF CHANGES

No	Effective Date	Change Description	Reason	Reviewer	Approver
1	30/May/2019	Create a new assignment	Create new	DieuNT1	VinhNV
2	07/Jun/2019	Update Fsoft Template	Update	DieuNT1	VinhNV
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CODE: Async-JS.M.A103 (Async 03)

TYPE: Medium

LOC: 300

DURATION: 180

Day 2. Unit 2-5: Async Programming

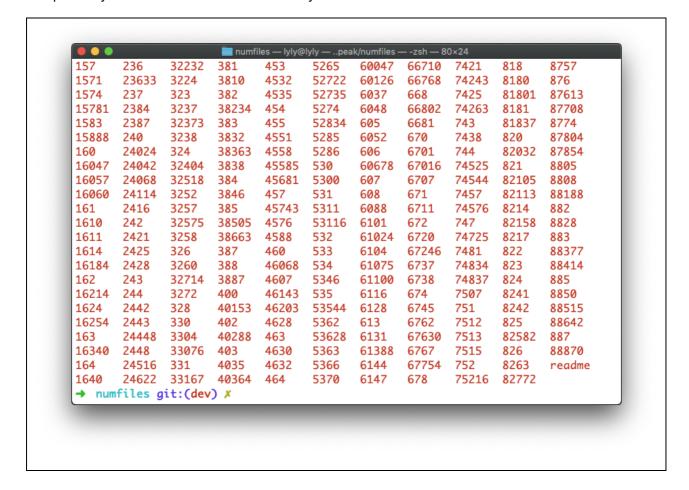
Objectives:

- Understand how to abstract asynchronous task in JavaScript (Async Programming)
- Understand the core concept of Async in JavaScript: the Event Loop
- Understand the concept of Parallel Programming and how JavaScript implement that concept
- Able to working with Async API with ease (Callback, Promise, Generators, async/await)

Assumptions:

You are given a file called numfiles.zip

Unzip it and you will have a folder contains many small files like below:



You need to do the following:

- Start from file 1024.
- Collect the binary digit enclosed in [].
- Proceed to get the next file and the next binary digit.

Continue till the last file.

To read a file use the following API from NodeJS, which will read the file 1024 asynchronously

```
1. const fs = require('fs');
2.
3. fs.readFile('1024', 'utf-8', function(err, data) {
4.    if (err) {
5.        throw err;
6.    }
7.
8.    console.log(data);
9. });
```

Problem 01:

You have to do the requirements using Callback first then Promise and lastly use async/await

You need to setup your project folder in order to do so.

Expected output:

Problem 02:

You must do the same tasks like Exercise 1, but you have to use Promise API instead of Callback Style.

Problem 03:

You must do the same tasks like Exercise 1, but you have to use Generators API.

Problem 04:

You must do the same tasks like Exercise 1, but you have to use async/await API.