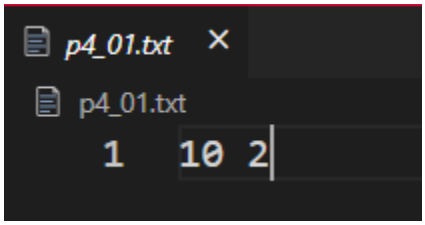
Practical: 4

Que:1 Read two values from a file and make addition, subtraction, division and multiplication.

```
var fs = require('fs');
fs.readFile("p4_01.txt",function(err,data){
    if(err)
    {
        console.log(err);
    }
    else
    {
        var str = data.toString().split(' ');
        var num1 = parseInt(str[0]);
        var num2 = parseInt(str[1]);
        console.log("Addition is: "+(num1+num2))
        console.log("Subtraction is: "+(num1-num2))
        console.log("Multiplication is: "+(num1*num2))
        console.log("Division is: "+(num1/num2))
    }
});
```

Output:




```
PS E:\B_Tech\SEM_5\SP\Practical\Code\Practical 4> node "e:\
B_Tech\SEM_5\SP\Practical\Code\Practical 4\p4_01.js"
Addition is: 12
Subtraction is: 8
Multiplication is: 20
Division is: 5
PS E:\B_Tech\SEM_5\SP\Practical\Code\Practical 4>
```

Que:2 Differentiate between synchronous and asynchronous file reading by example.

```
var fs = require('fs');
//Sync Read
console.log("*****Sync File Read*****");
console.log(fs.readFileSync('p4_01.txt').toString());
console.log("Read Complete\n");

//Async Read
console.log("*****Async File Read*****");
fs.readFile('p4_01.txt',function(err,data){
    if(err)
    {
        console.log(err);
    }
    else{
        console.log(data.toString());
    }
});
console.log("Read Complete");
```

Output:

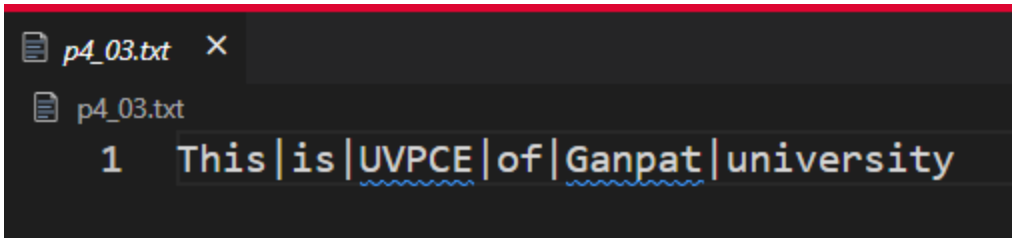
```
PS E:\B_Tech\SEM_5\SP\Practical\Code\Practical 4> node "e:\
B_Tech\SEM_5\SP\Practical\Code\Practical 4\p4_02.js"
*****Sync File Read*****
10 2
Read Complete

*****Async File Read*****
Read Complete
10 2
PS E:\B_Tech\SEM_5\SP\Practical\Code\Practical 4>
```

Que:3 For the given string in the text file,split it into substrings which is separated by '|' (pipe) and display the result.

String: This|is|UVPCE|of|Ganpat|university

```
var fs = require('fs');
fs.readFile('p4_03.txt',function(err,data){
    if(err)
    {
        console.log(err);
    }
    else{
        var str = data.toString().split('|');
        str.forEach(str_val=>{
            console.log(str_val);
        });
    }
});
```

Output:




```
PS E:\B_Tech\SEM_5\SP\Practical\Code\Practical 4> node "e:\
B_Tech\SEM_5\SP\Practical\Code\Practical 4\p4_03.js"
This
is
UVPCE
of
Ganpat
university
PS E:\B_Tech\SEM_5\SP\Practical\Code\Practical 4>
```

Que:4 Write the following content in the html file using writeFile().

Content:

<html>
<head>
<title>
A Simple HTML Document
</title>
</head>
<body>
This is a very simple HTML document
It only has two paragraphs
</body>
</html>

```
var fs = require('fs');
var str="<html>"+
"<head>"+
"<title>"+
"A Simple HTML Document"+
"</title>"+
"</head>"+
"<body>"+
"<p>This is a very simple HTML document</p>"+
"<p>It only has two paragraphs</p>"+
"</body>"+
"</html>";
fs.writeFile('p4_04.html',str,function(err){
    if(err)
    {
        console.log(err)
    }
    else{
        console.log("File Write Sucessful");
        console.log(fs.readFileSync('p4_04.html').toString());
    }
});
```

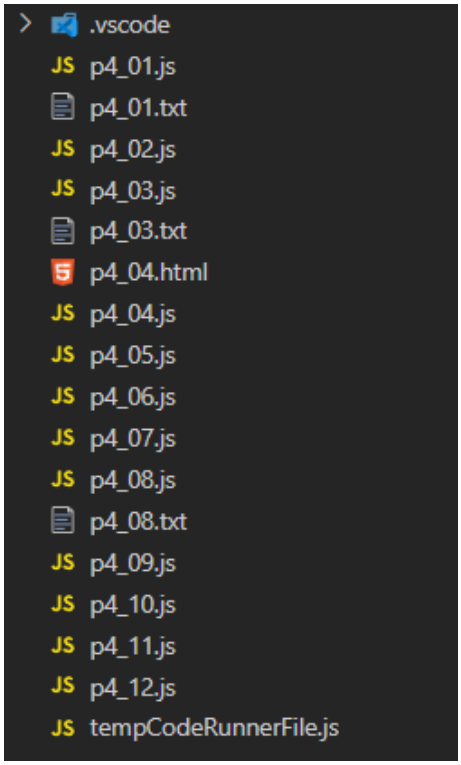
Output:

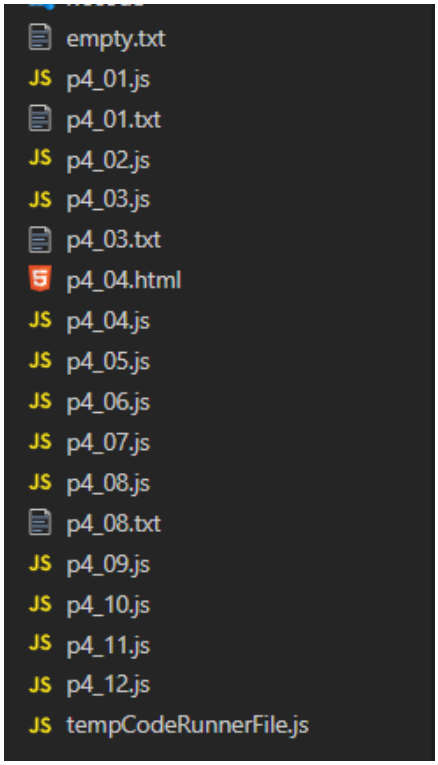
```
PS E:\B_Tech\SEM_5\SP\Practical\Code\Practical 4> node "e:\
B_Tech\SEM_5\SP\Practical\Code\Practical 4\p4_04.js"
File Write Sucessful
<html><head><title>A Simple HTML Document</title></head><bo
dy><p>This is a very simple HTML document</p><p>It only has
 two paragraphs</p></body></html>
PS E:\B_Tech\SEM_5\SP\Practical\Code\Practical 4>
```

Que:5 Create an empty text file (file without content).

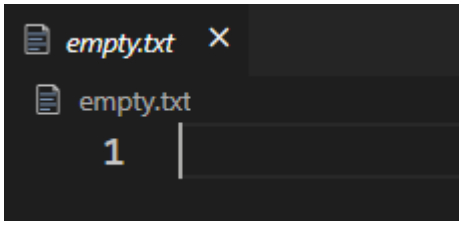
```
var fs = require('fs');
fs.writeFile('empty.txt','',function(err){
    if(err){
        console.log(err);
    }
    else{
        console.log("File Created");
    }
});
```

Output:






```
PS E:\B_Tech\SEM_5\SP\Practical\Code\Practical 4> node "e:\
B_Tech\SEM_5\SP\Practical\Code\Practical 4\p4_05.js"
File Created
PS E:\B_Tech\SEM_5\SP\Practical\Code\Practical 4>
```

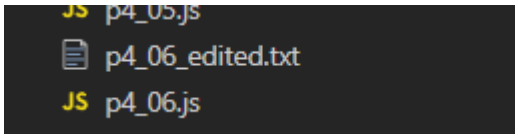


Que:6 Rename the existing file with the new name and display system's error's message if it doesn't exist.

```
var fs = require('fs');
fs.writeFile('p4_06.txt','Hi',function(err)
{
    if(err)
    {
        console.log(err)
    }
    else{
        console.log('File Created');
        fs.rename('p4_06.txt','p4_06_edited.txt',function(err)
        {
            if(err)
            {
                console.log(err);
            }
            else{
                console.log('File Renamed');
                console.log("Old Filename: p4_06.txt");
                console.log("Old Filename: p4_06_edited.txt");
            }
        });
    }
});
```

Output:

```
PS E:\B_Tech\SEM_5\SP\Practical\Code\Practical 4> node "e:\
B_Tech\SEM_5\SP\Practical\Code\Practical 4\tempCodeRunnerFi
le.js"
File Created
File Renamed
Old Filename: p4_06.txt
Old Filename: p4_06_edited.txt
PS E:\B_Tech\SEM_5\SP\Practical\Code\Practical 4>
```



Que:7 Delete the existing file and display system's error's message if it doesn't exist.

```
var fs = require('fs');
fs.writeFile('p4_07.txt',"Hello",function(err){
    if(err){
        console.log(err);
    }
    else{
        console.log('File created');
        fs.unlink('p4_07.txt',function(err){
            if(err)
            {
                console.log(err);
            }
            else{
                console.log('File Deleted')
            }
        });
    }
});
```

Output:

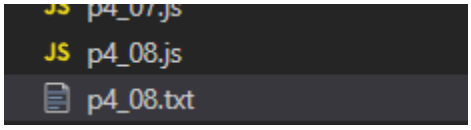
```
PS E:\B_Tech\SEM_5\SP\Practical\Code\Practical 4> node "e:\
B_Tech\SEM_5\SP\Practical\Code\Practical 4\p4_07.js"
File created
File Deleted
PS E:\B_Tech\SEM_5\SP\Practical\Code\Practical 4>
```

Que:8 Take the existing file and add new 3 lines in it.

```
var fs = require('fs');
fs.writeFile('p4_08.txt','Hello',function(err){
    if(err)
    {
        console.log(err)
    }
    else{
        console.log('*****File created*****');
        console.log(fs.readFileSync('p4_08.txt').toString()+"\n");
        fs.appendFile('p4_08.txt',"\r\nHi\r\nHow Are You\r\nKem
        Chho\r\n",function(err){
            if(err)
            {
                console.log(err)
            }
            else
            {
                console.log("*****File Appended*****");
                console.log(fs.readFileSync('p4_08.txt').toString());
            }
        });
    }
});
```

Output:

```
PS E:\B_Tech\SEM_5\SP\Practical\Code\Practical 4> node "e:\
B_Tech\SEM_5\SP\Practical\Code\Practical 4\p4_08.js"
*****File created*****
Hello

*****File Appended*****
Hello
Hi
How Are You
Kem Chho
```



Que:9 Print your bio-data using util.format in the console.
(your bio data should contain Name, age, mobile no, email_id, resident address, education qualification, occupation and current timestamp.)

```
const util = require('util');
var name ="Dhavanik";
var age=21;
var mobile_no=7621976813;
var email_id="dhavanik@gmail.com";
var resident_address="Mehsana";
var edu_qualification="B.Tech IT Running 3 Year 5th SEM";
var occupation="Study"
util.log(util.format("Name is: %s",name))
util.log(util.format("Age is: %d",age))
util.log(util.format("Mobile Number is: %d",mobile_no))
util.log(util.format("Email is: %s",email_id))
util.log(util.format("Resident Address is: %s",resident_address))
util.log(util.format("Education Qualification is: %s",edu_qualification))
util.log(util.format("Occupation is: %s",occupation))
```

Output:

```
PS E:\B_Tech\SEM_5\SP\Practical\Code\Practical 4> node "e:\
B_Tech\SEM_5\SP\Practical\Code\Practical 4\tempCodeRunnerFi
le.js"
15 Sep 18:38:13 - Name is: Dhavanik
15 Sep 18:38:13 - Age is: 21
15 Sep 18:38:13 - Mobile Number is: 7621976813
15 Sep 18:38:13 - Email is: dhavanik@gmail.com
15 Sep 18:38:13 - Resident Address is: Mehsana
15 Sep 18:38:13 - Education Qualification is: B.Tech IT Run
ning 3 Year 5th SEM
15 Sep 18:38:13 - Occupation is: Study
PS E:\B_Tech\SEM_5\SP\Practical\Code\Practical 4>
```

Que:10 Print the host and hostname from the given URL.
URL: https://www.uvpce.ac.in:11/content/syllabus-it

```
const value_url=new URL('https://www.uvpce.ac.in:11/content/syllabus-it');
console.log("Host : "+value_url.host);
console.log('Hostname : '+value_url.hostname);
```

Output:

```
PS E:\B_Tech\SEM_5\SP\Practical\Code\Practical 4> node "e:\
B_Tech\SEM_5\SP\Practical\Code\Practical 4\p4_10.js"
Host : www.uvpce.ac.in:11
Hostname : www.uvpce.ac.in
PS E:\B_Tech\SEM_5\SP\Practical\Code\Practical 4>
```

Que:11 Using the search property of URL, print search parameters (after the '?') for the following url.

https://www.google.com/search?sxsrf=ALeKk00zkMmOlhl2IKbhPhHy_gY57KJN_g%3A1598340885542&source=hp

```
const url_value=new URL("https://www.google.com/search?
sxsrf=ALeKk00zkMmOlhl2IKbhPhHy_gY57KJN_g%3A1598340885542&source=hp");
console.log(url_value.searchParams);
```

Output:

```
PS E:\B_Tech\SEM_5\SP\Practical\Code\Practical 4> node "e:\
B_Tech\SEM_5\SP\Practical\Code\Practical 4\p4_11.js"
URLSearchParams { 'sxsrf' => 'ALeKk00zkMmOlhl2IKbhPhHy_gY57
KJN_g:1598340885542', 'source' => 'hp' }
PS E:\B_Tech\SEM_5\SP\Practical\Code\Practical 4>
```

Que:12 Parses a path to an object with the segments that compose it:
root: the root
dir: the folder path starting from the root
base: the file name + extension
name: the file name
ext: the file extension
PATH: H:\\BACKUP\\node\\myexamples\\CIRCLE.js

```
const path=require('path');
var path_link="H:\\BACKUP\\node\\myexamples\\CIRCLE.js";
console.log('Root: '+path.parse(path_link).root);
console.log('Dir: '+path.parse(path_link).dir);
console.log('BaseName: '+path.parse(path_link).base);
console.log('FileName: '+path.parse(path_link).name);
console.log('File Extension: '+path.parse(path_link).ext);
```

Output:

```
PS E:\B_Tech\SEM_5\SP\Practical\Code\Practical 4> node "e:\
B_Tech\SEM_5\SP\Practical\Code\Practical 4\p4_12.js"
Root: H:\
Dir: H:\BACKUP\node\myexamples
BaseName: CIRCLE.js
FileName: CIRCLE
File Extension: .js
PS E:\B_Tech\SEM_5\SP\Practical\Code\Practical 4>
```