

Raj Kumar Goel Institute Of Technology, Ghaziabad

EXPERIMENT 07

Aim : Build a command-line utility using Node.js that performs a specific task, such as converting text to uppercase, calculating the factorial of a number, or generating random passwords.

Step1. Create file TextToUppercase.js

```
const readline = require('readline');

const rl = readline.createInterface({
  input: process.stdin,
  output: process.stdout
});

rl.question("Enter text to convert to uppercase: ", (input) => {
  console.log("Uppercase: ", input.toUpperCase());
  rl.close();
});
```

Step 2. Create file FactorialCalculating.js

```
const readline = require('readline');

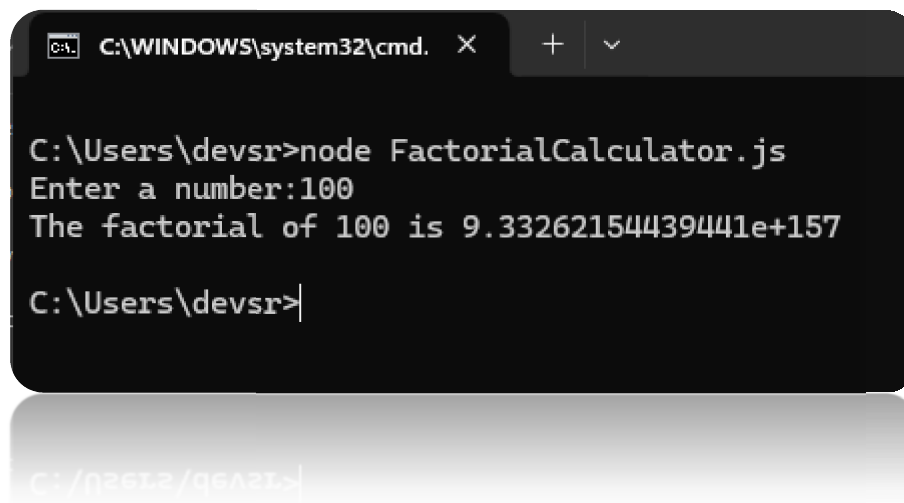
const rl = readline.createInterface({
  input: process.stdin,
  output: process.stdout
});

function factorial(n) {
  if (n === 0
  || n === 1) {
    return 1;
  } else {
    return n * factorial(n - 1);
  }
}
```

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```
}  
  
rl.question('Enter a number:', (number) => {  
  console.log(`The factorial of ${number} is ${factorial(number)}`);  
  rl.close();  
});
```

Output:



A screenshot of a Windows command prompt window. The title bar shows the path 'C:\WINDOWS\system32\cmd.' and standard window controls. The command prompt shows the following text:
C:\Users\devsr>node FactorialCalculator.js
Enter a number:100
The factorial of 100 is 9.33262154439441e+157
C:\Users\devsr>|

Step 3. Create a file PasswordGenerator.js

```
const crypto = require('crypto');  
  
function generatePassword(length) {  
  const charset =  
    'abcdefghijklmnopqrstuvwxyzABCDEFGHIJKLMNOPQRSTUVWXYZ0123456789!@#$%^&*()_-=';  
  let password = '';  
  for (let i = 0; i < length; i++) {  
    password += charset[crypto.randomInt(0,  
    charset.length)];  
  }  
  return password;  
}
```

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```
const readline = require('readline');

const rl = readline.createInterface({
  input: process.stdin,
  output: process.stdout
});

rl.question('Enter the desired password length:',
(length) => {
  console.log(generatePassword(length));
  rl.close();
});
```

Output:

```
C:\Users\devsr>node PasswordGenerator.js
Enter the desired password length:14
&3U2P=Yltt(a8v
```

```
C:\Users\devsr>node PasswordGenerator.js
Enter the desired password length:6
ZL0xjR
```

```
ZL0xjR
```

```
C:\Users\devsr>node PasswordGenerator.js
```