

NODEJS ASSIGNMENT

ASSIGNMENT 1

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Course: BTECH CSE (FULL STACK DEVELOPMENT)

Ques 1. Write a Node.js program to write 5 countries' names and their details shown below in the structure into the file "Countries.txt". The file should have the country name, country population, GDP, year of independence, and growth rate.

```
const fs = require("fs");

const countries = [
  {
    name: "USA",
    population: "331 million",
    GDP: "$21.43 trillion",
    independenceYear: 1776,
    growthRate: "2.3%",
  },
  {
    name: "India",
    population: "1.38 billion",
    GDP: "$2.87 trillion",
    independenceYear: 1947,
    growthRate: "6.9%",
  },
  {
    name: "China",
    population: "1.41 billion",
    GDP: "$14.34 trillion",
    independenceYear: 1949,
    growthRate: "6.1%",
  },
  {
    name: "Brazil",
    population: "213 million",
    GDP: "$2.05 trillion",
```

```
    independenceYear: 1822,  
    growthRate: "1.1%",  
  },  
  {  
    name: "Australia",  
    population: "26 million",  
    GDP: "$1.39 trillion",  
    independenceYear: 1901,  
    growthRate: "2.8%",  
  },  
];  
  
const writeStream = fs.createWriteStream("Countries.txt");  
  
countries.forEach((country) => {  
  writeStream.write(  
    `${country.name}, ${country.population}, ${country.GDP},  
    ${country.independenceYear}, ${country.growthRate}\n`  
  );  
});  
  
writeStream.end();  
  
writeStream.on("error", (err) => {  
  console.error("Error writing to file:", err);  
});  
  
writeStream.on("finish", () => {  
  console.log("Data successfully written to Countries.txt");  
});
```

OUTPUT:

Data successfully written to Countries.txt

Ques2. Read the data from the file "Countries.txt" and display them on the console line by line only.

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

const readStream = fs.createReadStream('Countries.txt', 'utf8');

readStream.on('data', (chunk) => {
  const lines = chunk.split('\n');
  lines.forEach(line => {
    console.log(line);
  });
});

readStream.on('error', (err) => {
  console.error('Error reading from file:', err);
});

readStream.on('end', () => {
  console.log('Finished reading from Countries.txt');
});
```

OUTPUT:

USA, 331 million, \$21.43 trillion, 1776, 2.3%
India, 1.38 billion, \$2.87 trillion, 1947, 6.9%
China, 1.41 billion, \$14.34 trillion, 1949, 6.1%
Brazil, 213 million, \$2.05 trillion, 1822, 1.1%
Australia, 26 million, \$1.39 trillion, 1901, 2.8%

Ques 3 .Create a file "input.txt" and add some random content of 500 words into the file. Create one empty file "output.txt".

- (a) Copy all the data from "input.txt" to "output.txt" using the streams.
- (b) Also display the content of the "output.txt" on the console line by line. Note: If any error comes, you should handle the error with the (err) object.

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

const readStream = fs.createReadStream('./input.txt', 'utf8');

const writeStream = fs.createWriteStream('./output.txt');

readStream.pipe(writeStream);

readStream.on('error', (err) => {
  console.error('Error reading input file:', err);
});

writeStream.on('error', (err) => {
  console.error('Error writing to output file:', err);
});

writeStream.on('finish', () => {
  console.log('Content copied to output.txt');
});

const outputReadStream = fs.createReadStream('output.txt', 'utf8');
outputReadStream.on('data', (chunk) => {
  const lines = chunk.split('\n');
  lines.forEach(line => {
    console.log(line);
  });
});

outputReadStream.on('end', () => {
  console.log('Finished displaying content from output.txt');
});
```

OUTPUT:

Finished displaying content from output.txt

Content copied to output.txt
