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.

```javascript
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.

```javascript
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%

Finished reading from Countries.txt

ASSIGNMENT 2

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.

```javascript
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.tx