Name: Sachin Gupta Class: BCA-A Roll No:25

IP Practical: 7

(A) File System Operations

1. Create and Write to a File:

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

fs.writeFile('example.txt', 'Hello, this is a test file.', (err) => {
    if (err) throw err;
    console.log('File created and written successfully.');
});
```

Output:

```
File created and written successfully.
```

---

2. Read a File:

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

fs.readFile('example.txt', 'utf8', (err, data) => {
    if (err) throw err;
    console.log('File content:', data);
});
```

Output:

```
File content: Hello, this is a test file.
```

---

3. Append Data to a File:

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

fs.appendFile('example.txt', '\nAppended content.', (err) => {
    if (err) throw err;
    console.log('Content appended successfully.');
});
```

Output:

```
Content appended successfully.
```

4. Rename a File:

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

fs.rename('example.txt', 'new_example.txt', (err) => {
    if (err) throw err;
    console.log('File renamed successfully.');
});
```

Output:

```
File renamed successfully.
```

---

5. Delete a File:

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

fs.unlink('new_example.txt', (err) => {
    if (err) throw err;
    console.log('File deleted successfully.');
});
```

Output:

```
File deleted successfully.
```

(B) **Implement a Simple Logger That Appends Logs to a File**

Code:

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

function logMessage(message) {
    const logFilePath = path.join(__dirname, 'logs.txt');
    const logEntry = `${new Date().toISOString()} - ${message}\n`;

    fs.appendFile(logFilePath, logEntry, (err) => {
        if (err) throw err;
        console.log('Log added:', message);
    });
}

logMessage('Server started');
logMessage('User logged in');
logMessage('File uploaded');
```

Code Output:

```
Log added: User logged in
Log added: File uploaded
Log added: Server started
```

Log Output:

```
2025-04-03T11:34:51.085Z - User logged in
2025-04-03T11:34:51.085Z - File uploaded
2025-04-03T11:34:51.084Z - Server started
```