

Directory & File Operations Using try-catch for exception handling

Kailas Patil • 15:27

10 points

that uses try-catch to demonstrate . :

-
-
- Creating directories & Files
-
- Checking existence of Directory & Files
-
- Listing all files and subdirectories
-
- Creating, writing, reading files- Write Text, Append Text
-
- Copying, moving, deleting, rename files and directories
-
- Using try-catch for exception handling

Code:

```
using System;
using System.IO;

class FileDirectoryDemo
{
    static void Main()
    {
        try
        {
            string dirPath = @"C:\TestDir";
            string filePath = Path.Combine(dirPath, "file.txt");
            string copyPath = Path.Combine(dirPath, "file_copy.txt");

            // 1. Creating Directory
            if (!Directory.Exists(dirPath))
            {
                Directory.CreateDirectory(dirPath);
                Console.WriteLine("Directory created: " + dirPath);
            }
        }
    }
}
```

```
}
else
{
    Console.WriteLine("Directory already exists.");
}

// 2. Creating File
if (!File.Exists(filePath))
{
    File.WriteAllText(filePath, "Hello, this is first line.\n");
    Console.WriteLine("File created: " + filePath);
}
else
{
    Console.WriteLine("File already exists.");
}

// 3. Checking existence
Console.WriteLine("Directory exists? " +
Directory.Exists(dirPath));
Console.WriteLine("File exists? " + File.Exists(filePath));

// 4. Listing all files and subdirectories
Console.WriteLine("\nFiles in directory:");
foreach (string file in Directory.GetFiles(dirPath))
{
    Console.WriteLine(" - " + file);
}

// 5. Writing, Reading, Appending
File.AppendAllText(filePath, "This is new content.\n");
Console.WriteLine("Text appended.");

File.AppendAllText(filePath, "Appended line.\n");
Console.WriteLine("Text appended.");

string content = File.ReadAllText(filePath);
Console.WriteLine("\nFile Content:\n" + content);

// 6. Copying file
File.Copy(filePath, copyPath, true);
Console.WriteLine("File copied to: " + copyPath);

// 7. Renaming file (Move)
string renamedPath = Path.Combine(dirPath, "renamed_file.txt");
File.Move(copyPath, renamedPath, true);
Console.WriteLine("File renamed to: " + renamedPath);
```

```
        // 8. Deleting file
        File.Delete(renamedPath);
        Console.WriteLine("Renamed file deleted.");
    }
    catch (UnauthorizedAccessException ex)
    {
        Console.WriteLine("Access Error: " + ex.Message);
    }
    catch (IOException ex)
    {
        Console.WriteLine("IO Error: " + ex.Message);
    }
    catch (Exception ex)
    {
        Console.WriteLine("General Error: " + ex.Message);
    }
}
}
```