**Test Summary:**

**Project:** File Explorer Application  
**Version:** 1.0  
**Testing Environment:** Ubuntu 20.04, C++ Compiler (g++)

**Test Cases**

| **Test Case ID** | **Feature** | **Test Description** | **Expected Outcome** | **Actual Outcome** | **Status** |
| --- | --- | --- | --- | --- | --- |
| TC001 | List Directory Contents | List the contents of the current directory. | Display all files and directories within the current path. | Displayed all files and directories correctly. | Pass |
| TC002 | Change Directory | Change to a specific directory. | Navigate to the specified directory and update the current path. | Successfully navigated to the specified directory. | Pass |
| TC003 | Create File | Create a new file in the current directory. | A new empty file is created in the current directory. | File created successfully. | Pass |
| TC004 | Create Directory | Create a new directory in the current directory. | A new directory is created in the current directory. | Directory created successfully. | Pass |
| TC005 | Delete File | Delete a specified file. | The specified file is deleted from the directory. | File deleted successfully. | Pass |
| TC006 | Delete Directory | Delete a specified directory. | The specified directory is deleted. | Directory deleted successfully. | Pass |
| TC007 | Copy File | Copy a file from one location to another. | The file is copied to the specified location. | File copied successfully. | Pass |
| TC008 | Move File | Move a file from one location to another. | The file is moved to the specified location. | File moved successfully. | Pass |
| TC009 | Search File | Search for a file by name in the current directory. | Display the file if found, or show a message if not found. | File found and displayed. | Pass |
| TC010 | Change File Permissions | Modify the permissions of a specified file. | File permissions are updated according to the input. | File permissions changed successfully. | Pass |
| TC011 | Logging | Ensure all actions are logged to the console and log file. | Console output and log file contain accurate records of all actions. | All actions logged correctly in both the console and log file. | Pass |
| TC012 | Exit Application | Exit the file explorer application gracefully. | Application exits without errors. | Application exited successfully. | Pass |

**Test Results**

* **Total Test Cases:** 12
* **Passed:** 12
* **Failed:** 0
* **Blocked:** 0

**Key Observations**

* The application handles all basic file operations smoothly.
* Logs are correctly maintained, capturing all actions.
* Error messages are displayed for invalid inputs, ensuring the application doesn’t crash.

**Conclusion**

* The application has been tested thoroughly and works as expected for all features. It’s ready for use.