Operative system

The Os Module Provides A Way To Interact With The Operating System. Here Are Some Of The Common Functions Available In The Os Module:

1. File and Directory Operations:

   - os.listdir(path='.'): Returns a list of filenames in the given directory.
   - os.getcwd(): Returns the current working directory.
   - os.chdir(path): Changes the current working directory.
   - os.mkdir(path): Creates a directory.
   - os.makedirs(path): Creates directories recursively.
   - os.remove(path): Removes a file.
   - os.rmdir(path): Removes a directory.
   - os.removedirs(path): Removes directories recursively.

2. File Information:

   - os.stat(path): Returns information about a file.
   - os.path.exists(path): Checks if a file or directory exists.
   - os.path.isfile(path): Checks if a path is a regular file.
   - os.path.isdir(path): Checks if a path is a directory.
   - os.path.getsize(path): Returns the size of a file in bytes.

3. Environment Variables:

   - os.environ: A dictionary containing the environment variables.
   - os.getenv(name, default=None): Returns the value of the environment variable name, or default if it doesn't exist.

4. Process Management:

   - os.system(command): Executes the command in a subshell.
   - os.spawn*(mode, path, ...): Spawns a new process.
   - os.waitpid(pid, options): Waits for a child process to terminate.

5. Path Manipulation:

   - os.path.join(path, *paths): Join one or more path components intelligently.

- `os.path.abspath(path)`: Returns the absolute path of a file or directory.
- `os.path.basename(path)`: Returns the base name of a path.
- `os.path.dirname(path)`: Returns the directory name of a path.
- `os.path.split(path)`: Splits a path into a directory and a file name.

6. `Permissions`:

- `os.chmod(path, mode)`: Changes the permissions of a file.
- `os.chown(path, uid, gid)`: Changes the owner and group id of a file.

7. `Miscellaneous`:

- `os.getlogin()`: Returns the name of the user logged in on the controlling terminal of the process.
- `os.cpu_count()`: Returns the number of CPUs in the system.

These are some of the commonly used functions in the `os` module. There are many more functions available for various operating system-related tasks.