

# Client-server model Test report:

To test the client-server program, doctest module has been used. Doctests had been added for all the required functions

## [+] Instructions to test the model

1. Navigate to project folder
2. Run **`./clean.sh`** script to remove previous database.json file and store folder
3. You can also do the above step manually
4. Navigate to server folder and start the server
5. Now, In other terminal navigate to client folder
6. Comment the **`main()`** and uncomment the line **`run_docktest()`** in **`driver.py`**
7. *If no failed test cases are shown, then the test has been successful*

## [+] User registration

- + This test case is useful for registering users in the server
- + The following command is used to create a folder

```
$ register <username> <password>
```

```
>>> register(['register', 'test', 'test'])
Registration successfull
>>> register(['register', 'test', 'test'])
User already exists
```

- + Registers a user successfully
- + Gives error if user already exists

## [+] User login

- + This test case is useful for logging in users in the server
- + The following command is used to create a folder

```
$ login <username> <password>
```

```
>>> login(['login', 'test', 'test'])
Login successfull
>>> login(['login', 'test', 'test'])
Already Logged in
```

- + Logs in the user with correct credentials
- + Gives error if user not found or incorrect credentials

## [+] Reading a file

- + This test case is useful for reading a file in current working directory
- + The following command is used to create a folder

```
$ read_file <name>
```

```
>>> read_file(['read_file', 'test.txt'])  
Hello world  
>>> read_file(['read_file', 'random.txt'])  
File doesn't exists
```

- + Reads a file in cwd
- + Gives an error if the file doesn't exist

## [+] Writing a file

- + This test case is useful for reading a file in current working directory
- + The following command is used to create a folder

```
$ write_file <name>
```

```
>>> write_file(['write_file', 'test.txt', 'Content of file'])  
Written to file
```

- + Writes to a file in cwd

## [+] Changing a directory

- + This test case is useful for changing a directory in current working directory
- + The following command is used to create a folder

```
$ change_folder <name>
```

```
>>> change_folder(['change_folder', 'unexisting'])  
Directory not exists  
>>> change_folder(['change_folder', 'new_dir'])  
Changed Directory
```

- + Changes directory to subfolders in current working directory
- + Gives error if directory doesn't exist

## [+] Creating a directory

- + This test case is useful for creating a directory in current working directory
- + The following command is used to create a folder

```
$ create_folder <name>
```

```
>>> create_folder(['create_folder', 'test_folder'])
```

```
Created Directory
```

```
>>> create_folder(['create_folder', 'test_folder'])
```

```
Directory already exists
```

- + Creates directories in cwd
- + Gives error if dir already exists

## [+] List files

- + This test case is useful for listing files in current working directory
- + The following command is used to create a folder

```
$list
```

```
>>> list()
```

```
test.txt      15      1641969860.2388268
```

- + List all files in cwd with details like name, size and created time