

DISTRIBUTED FILE SYSTEM PROGRAM MANUAL

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INSTALLATION REQUIREMENTS

To begin, ensure you have all the necessary dependencies installed. This can be done by finding the `'requirements.txt'` file in the installation folder and running the following command:

```
pip install -r requirements.txt
```

DATABASE SETUP

The database is provided in a file. Follow these steps to import it to MySQL:

- 1) Open XAMPP and start Apache and MySQL.
- 2) Open phpMyAdmin by going to <http://localhost/phpmyadmin/>.
- 3) Go to the Import tab.
- 4) Choose the provided SQL file (**comp5504_database.sql**) in the installation folder and click Go.
- 5) Verify that the database has been created.

Note: The default port is '3306', if you changed the port in MySQL config file you must add the port in the client.py file

For example, here the port has been changed to '8111'.

```
69 def create_connection():
70     """
71     Create and return a MySQL database connection.
72
73     """
74     try:
75         connection = mysql.connector.connect(
76             host='localhost',
77             user='root', # Replace with your MySQL username
78             password='', # Replace with your MySQL password
79             database='comp5504_users', # Replace with your database name
80             port = '8111'
81         )
82
83
84         return connection
85     except Error as e:
86         print(f"Error connecting to MySQL: {e}")
87         return None
```

STARTING THE SERVER

Once the database is set up, start the main server using the following command:

```
python server.py {localhost} {port}
```

STARTING THE STORAGE SERVER

To start a storage server, use the following command:

```
python storage_server.py {localhost} {storage server port} {localhost} {server port}
```

Note: You can start more than one storage server by repeating this step with different port numbers for each storage server.

STARTING THE CLIENT

Finally, to start the client application, use the following command:

```
python client.py
```

The client application allows users to:

1. Register
2. Login
3. Exit

Follow the on-screen prompts to navigate through these options.

Once the client application is running and the user is logged in successfully, you can perform the following operations:

1. Upload a File
2. Download a File
3. List All Files
4. Exit the Application