**Deployment Instructions**

**Server Deployment:**

1. **Server Requirements:**
   1. **NodeJS**: Latest LTS Version
   2. **MongoDB**: Latest Version
   3. **PM2** installation: To handle node processes
   4. **NGINX** installation: To serve client side files
   5. **Unzip** tool: Extract zip file in linux
   6. **Python2.7:** To read all uploaded files
2. **Server Production Deployment:**
   1. Login to server using SFTP/FTP client with SSH access (Putty, WinSCP, Filezilla)
   2. Create zip file of all server files mentioned in project structure in server-documentations and **SAVREADER** Directory.
   3. Upload both the zip files to the server
   4. Open SSH terminal of server, follow instructions:
      1. **Sudo mkdir /app** (create a project folder)
      2. **Sudo mv /home/<Homefolder>/server.zip /app/** (Copy uploaded server.zip to project directory)
      3. **Sudo mv /home/<homefolder>/savreader.zip /app** (Copy uploaded savreader zip to project directory)
      4. **Sudo unzip savreader.zip /app** (Extract zip to project directory)
      5. **Cd savreader** (traverse to savreader folder)
      6. Run **pip install requirements.txt** (Install python dependencies)
      7. **Sudo unzip server.zip /app/server** (Extract zip file to project directory/server folder)
      8. **Cd server** (get inside server directory)
      9. Run **NPM INSTALL** (To install required modules)
      10. **Pm2 start main.js** (Run main.js file using PM2)
3. **Server Development Deployment:**
   1. **Extract server.zip** to local directory
   2. Open **cmd or terminal** in server directory
   3. Run **npm install** in cmd or terminal
   4. **Npm start** in cmd or terminal

**Client Deployment:**

1. **Client Production Deployment:**
   1. Open command line in client folder, follow below commands to build a production copy:
      1. Npm install (Install required modules)
      2. Npm build (Build production dist copy)
   2. **A DIST folder** will be created in client structure, archive the **dist folder** in a **zip** file and upload to the server.
   3. After uploading zip file, follow below instructions:
      1. **Mv /home/<userfolder>/dist.zip /app/** (Copy client zip to project directory)
      2. **Unzip /app/dist.zip /app** (Extract client zip file to project directory)
      3. Add **/app/dist/** path to **NGINX**
2. **Development Deployment:**
   1. **Extract client zip** to local path
   2. **Open terminal in client** folder
   3. **Run npm install** command to install all modules
   4. **Run npm start** to start the client in development

**Note**:

* Server requires SWAP size of minimum 1 GB to run python script of reading large files.
* The NGINX requires proxy URL to be added inside its configuration: localhost/server/

Refer below links of installing dependencies if stuck:

* <https://www.digitalocean.com/community/tutorials/how-to-use-pm2-to-setup-a-node-js-production-environment-on-an-ubuntu-vps>
* <https://www.digitalocean.com/community/tutorials/how-to-add-swap-space-on-ubuntu-16-04>