

Installation and Usage Guide:

System Requirements:

The system requirements are Windows/MacOS which can run Docker engine. You are also going to want MongoDB compass to inspect the contents of the MongoDB database. Aside from that, building the docker images should take care of all dependencies meaning no manual installation of **MongoDB** or Next.js or npm should be necessary.

Installation Steps: (Mainly for windows)

Step 1:

Make Sure Docker hub is installed and the docker engine is running.

<https://www.docker.com/>

Step 2:

Download and install MongoDB compass

<https://www.mongodb.com/products/tools/compass>.

Step 3:

Open a Terminal/Powershell and cd into the CIS542Project directory of the cloned/downloaded github.

<https://github.com/Briggs77/CIS542Project>

Step 4:

Build the project by running the command following command:

docker-compose up -d --build --force-recreate

Step 5:

The Project should now be built with two docker containers one for mongodb and one for Next.js .

Usage Instructions:

- Open your web browser of choice and enter <http://localhost:3000/AuthPage> into the URL address.
- Fill Out the Register form with values such as **test**, **123**, test@test.com and hit the Register button
- Enter your created credentials into the Login Form and hit Login.
- Enter a test value into TestForm and hit Add Document to submit the string to the API where the Session will be checked.
- Open up MongoDB Compass and hit **Add New Connection** and enter `mongodb://localhost:27017` as the URL, name and color fields can be left blank.
- Click on the Forensics_db in MongoDB compass.
 - The Sessions collection stores a document record of every successful login.
 - Test3 holds the test documents created after clicking Add Document in Test Form
 - usedHashes stores each used hash from every AddDocument call and associates them with the UserID by storing them in documents with the same id as the UserID
 - Users Stores the documents containing User Information.

Solutions To Potential Problems:

1. If the cis542project-forensics-demo-1 container won't build, you can cd into the CIS542Project/mongo_db folder and run **docker-compose up -d --build --force-recreate** to build just the MongoDB_container. Make sure you delete any previous containers matching the mongodb containers name or it won't build.

You can then download **NPM** on your host machine

<https://nodejs.org/en/download/package-manager> and cd into the

CIS542Project/nextjs folder and run **npm run dev**. As long as the mongodb container, the Next.js dev server should be able to find MongoDB from the host machine.