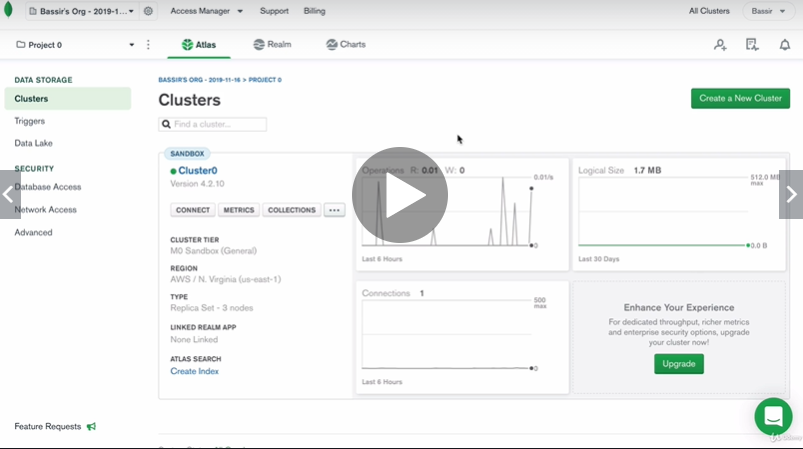
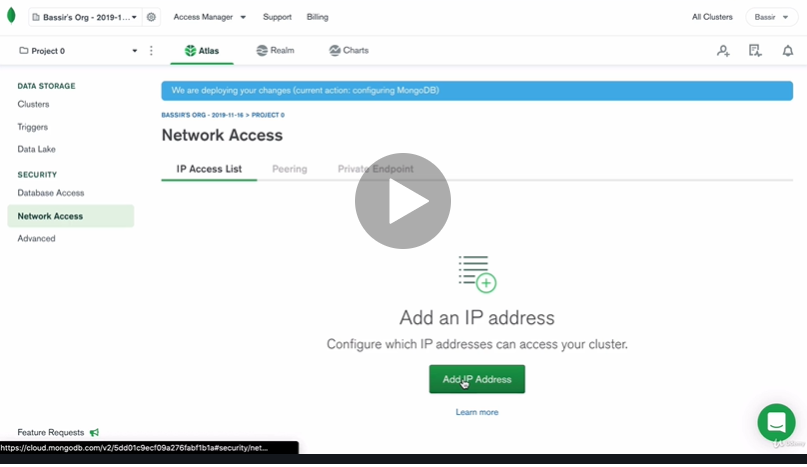
**Deploying Application to Heroku**

Follow these steps to publish Website to Heroku:

1. **Create git repository in amazona folder using git init:**
   * I’m using Git Bash. Go to the Root folder of the Web Application.
   * Open Git Bash Terminal and type in: **git init**
   * If you haven’t done so already, **create a .gitignore file** to keep certain file types from being uploaded to Git Hub or whatever version control program you are using.
2. **Create Heroku Account at:** **https://dashboard.heroku.com/apps**
3. **Install Heroku CLI at:** [**https://devcenter.heroku.com/articles/Heroku-cli**](https://devcenter.heroku.com/articles/Heroku-cli)
   * Heroku CLI will allow you to do Heroku stuff in your terminal
4. **$ heroku login:**
   * For those using windows, go to the Command Prompt… Not Git Bash. Then type: **heroku login**.
   * You will be redirected to a webpage where you can login to Heroku.
5. **$ heroku apps:create amazonaapp:**
   * Open a Git Bash Terminal in the Root Directory of your application.
   * Type: **heroku apps:create <application name>** to create the app in heroku.
   * In my case, I will type: **heroku apps:create midnight-machine-app** to create an application named “midnight-machine-app”.
6. **Edit package.json:**
   * Go to the package.json file in the Root Folder of your application. Not the package.json file in the front end folder.
   * In the scripts section of the package,json file make sure you have the line: **"build": "cd frontend && npm install && npm run build"**
   * The command above tells react to create a build folder in the front end folder that will contain all the files needed to run a react application.
   * Right after the devDependencies object in the package.json file, create a new object called “engines” by typing the following code: **"engines": { "node": "12.4.0", "npm": "6.9.0" }**
   * The command above sets the versions for Node and NPM that Heroku will use for this particular application.
7. **Creating the Procfile:**
   * In the root folder of the web application, create a new file named: **Procfile**
   * There will be no extension to the Procfile file.
   * Within Procfile, type the following code: **web: node --experimental-modules backend/server.js**
   * This code will run after installing all the required application packages and launches the website for us.
8. **Create a cloud-based database in Heroku:**
   * In your web browser type: [**https://www.mongodb.com/cloud**](https://www.mongodb.com/cloud)
   * Sign in or Sign up for the MongoDB cloud
   * Once you are logged in, if you do not have a Cluster, click on the “Create a New Cluster” button as shown below:

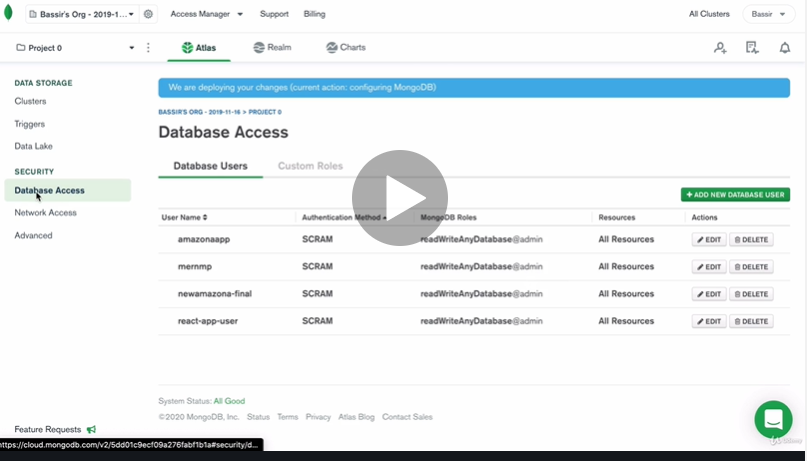


* + Next go to the “Network Access” tab shown below:



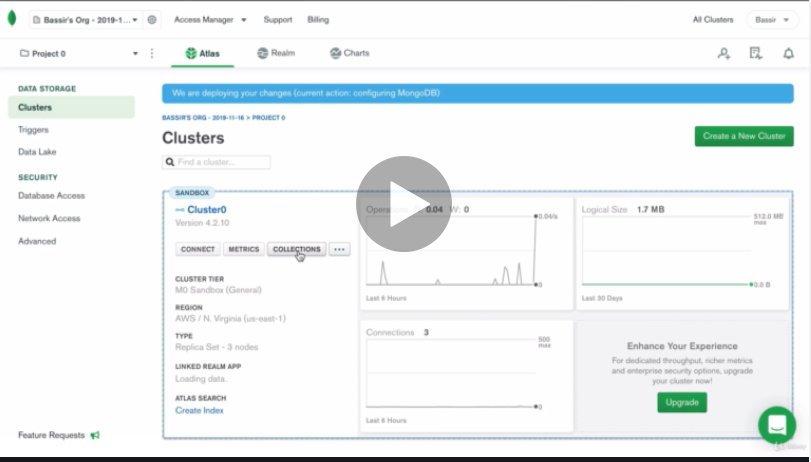
* + Click the “Add IP Address” button.
  + Click the “Allow Access from Anywhere” button.
  + Click the “Confirm” Button.
  + This will allow you to access your database from any internet connection.

1. **Set Database Access:**
   * While still in the MongoDB cloud dashboard go to the Database Access panel as shown below:



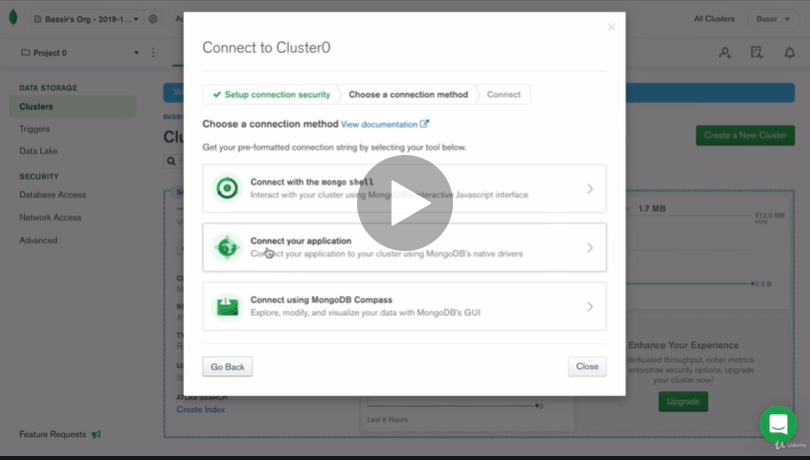
* + Click on the “Add New Database User” Button.
  + Then Click on the “Password” button.
  + You will then create a username and password to be able to access the database cluster.
  + Click the “Add User” button to finish adding the user.

1. **Create the MongoDB Database:**
   * Go to the “Clusters” tab and then click the “Collections” button as shown below:



* + Click the “Create Database” button.
  + Enter the Database Name and the Collection Name. In my case the Database Name is “midnight” and the collection name is “test”. Click the “Create” Button to create the application database.

1. **Set MongoDB connection string in Heroku:**
   * Go back to the “Clusters” tab in the MongoDB dashboard.
   * Click the “Connect Button”
   * Then click the “Connect your application” button as shown below:



* + Click on the “Copy” button to get the connection string that will allow your web application to connect to the MongoDB database.
  + Paste the connection string in a text file and replace the username, password, and dbname with the actual values that you are using. In my case the string: **mongodb+srv://midnight:<password>@cluster0.v5e1r.mongodb.net/<dbname>?retryWrites=true&w=majority**
  + Will become: **mongodb+srv://midnight:midnightmachine@cluster0.v5e1r.mongodb.net/midnight?retryWrites=true&w=majority**

1. **Setting Environmental Variables in Heroku:**
   * Copy the entire line above. Go to the Git Bash Terminal and type: **heroku config:set MONGODB\_URL=” mongodb+srv://midnight:midnightmachine@cluster0.v5e1r.mongodb.net/midnight?retryWrites=true&w=majority”**
   * Press enter and this code will set an Environmental Variable in your Heroku app that allows your app to connect to the MongoDB database.
   * We will now set a second environmental variable in Heroku. In Git Bash, type the following command: **heroku config:set SKIP\_PREFLIGHT\_CHECK=true.**
   * **I don’t know what this environmental variable does exactly….**
2. **Open Heroku apps Heroku to check whether Environmental Variables were successfully input from the last step:**
   * We are going to check whether the environmental variables were added to the Heroku Application. Go to your browser and go the Heroku Dashboard. Go to your application. Click the “Settings” tab, then go to the “Config Vars” section. Click the “Reveal Config Vars” button and the two environmental variables you added should show up. If they didn’t… Fuck. I’ll link the Udemy course that I purchased… Try to troubleshoot this crap.
3. **Commit your Web Application to Github:**
   * In this step we commit our application one last time to Github or whatever version control before pushing to Heroku.
4. **Commit your Web Application to Heroku:**
   * Now we commit out web application to Heroku. Open a Git Bash Terminal or whatever in the root folder of your application. Type the following command: **git push heroku**
   * This will publish your website to Heroku.

**Source: Build Ecommerce Website Like Amazon [React & Node & MongoDB] from Udemy.com and also YouTube from the Web Developer Bassir Jafarzadeh**