

Presentation On Node JS and MongoDB Application

Presented By:

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Master Trainer

Edunet Foundation

IBM Advance Diploma

Presentation Flow

- ▶ **Introduction**
- ▶ **Project Category: Web Based Application**
- ▶ **Purpose**
- ▶ **Use Case Diagram**
- ▶ **Sequence Diagram**
- ▶ **Data Flow Diagram (DFD)**
- ▶ **Entity Relationship Diagram(ER)**
- ▶ **Project Architecture**
- ▶ **User Interface Snapshots**
- ▶ **Database Structure**
- ▶ **Application Deployment**
- ▶ **Conclusion**
- ▶ **References**

Introduction

- ▶ This application is developed using NodeJS and the Express framework, when we want to interact with a MongoDB database from your code. Fortunately, this task is easy to accomplish using the Mongoose package for JavaScript. In this project I'll show you how to create an application using NodeJS, Express and MongoDB.

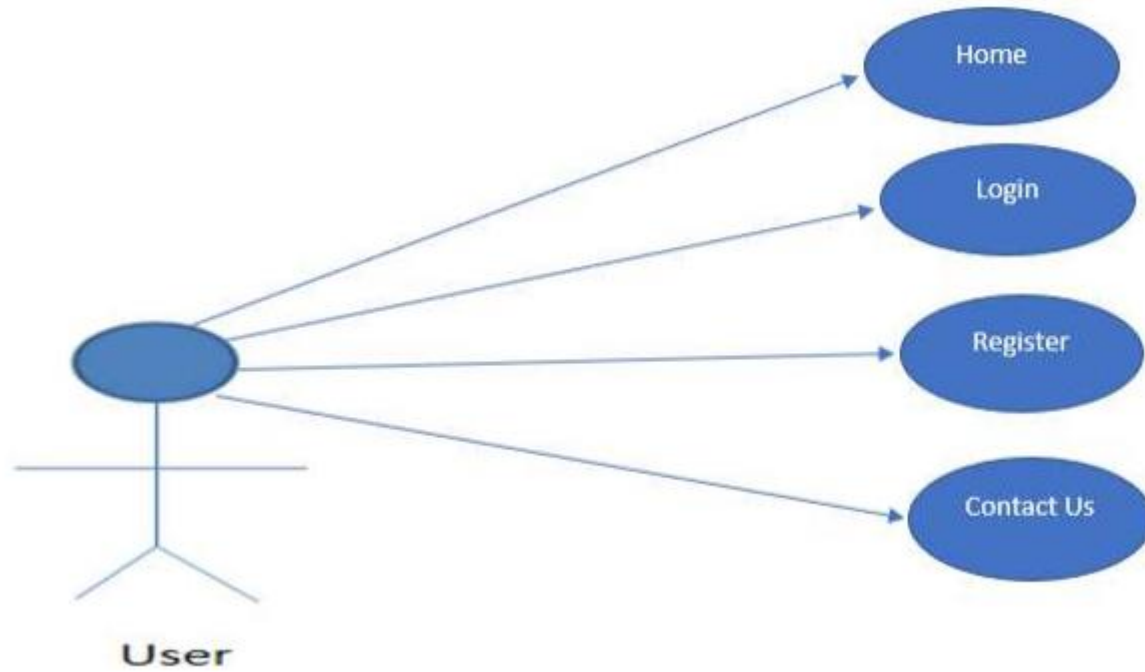
Project Category: Web Based Application

- ▶ **Services Used :-** Cloud Foundry
- ▶ **Tools and Software's used :-** Editor Used: Visual Studio Code ∞ Operating System: Windows 10 ∞ Browser: - Chrome ∞ Documentation: - MS Word
- ▶ **Technologies used :-** Languages: HTML, CSS, JavaScript.
- ▶ **Runtime:** - Node Js
- ▶ **Non-RDBMS:** MongoDB
- ▶ **Library/Framework:** Express, Mongoose, Bootstrap

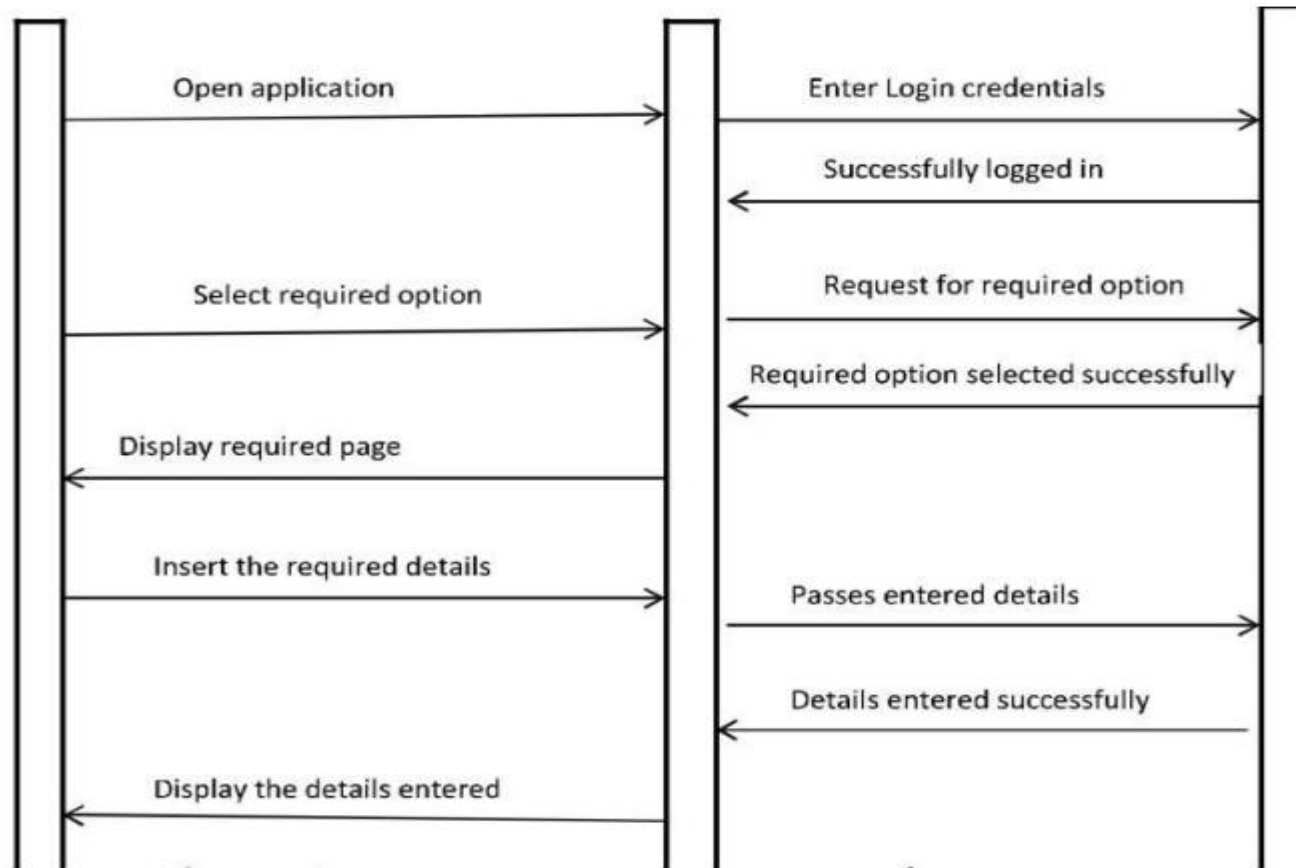
Purpose

The purpose of this document is to describe the functionality and specifications of the design of a web application and to learn how to build a simple web-based application using Node Js and Mongo DB.

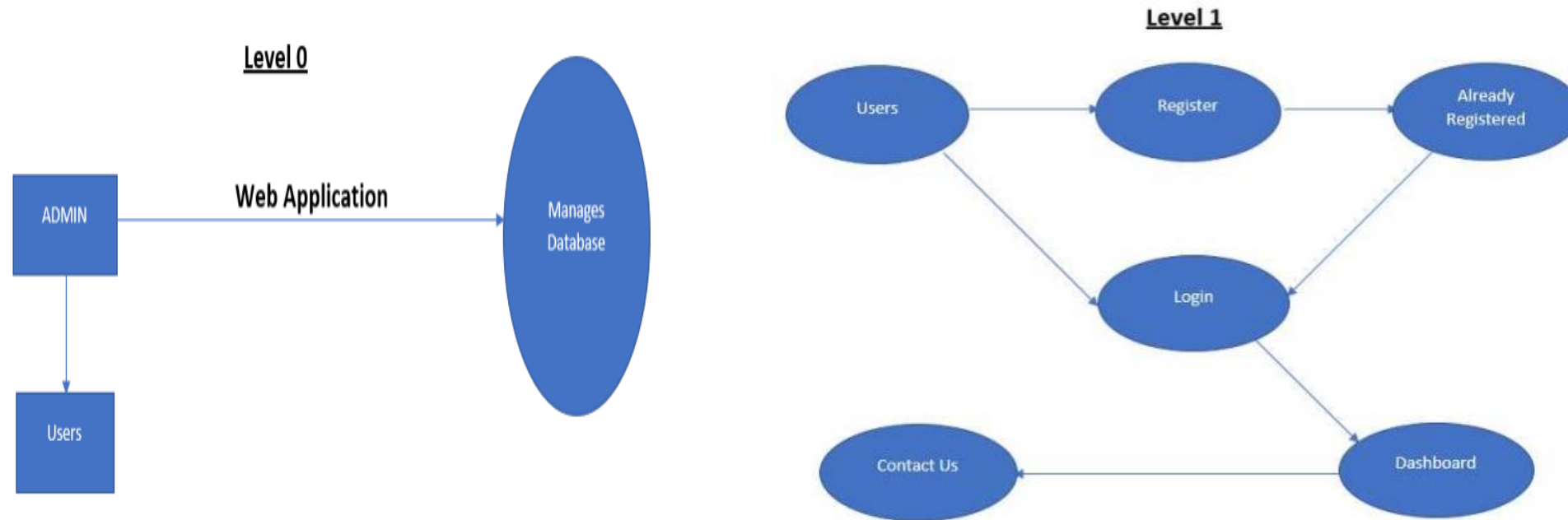
Use Case Diagram



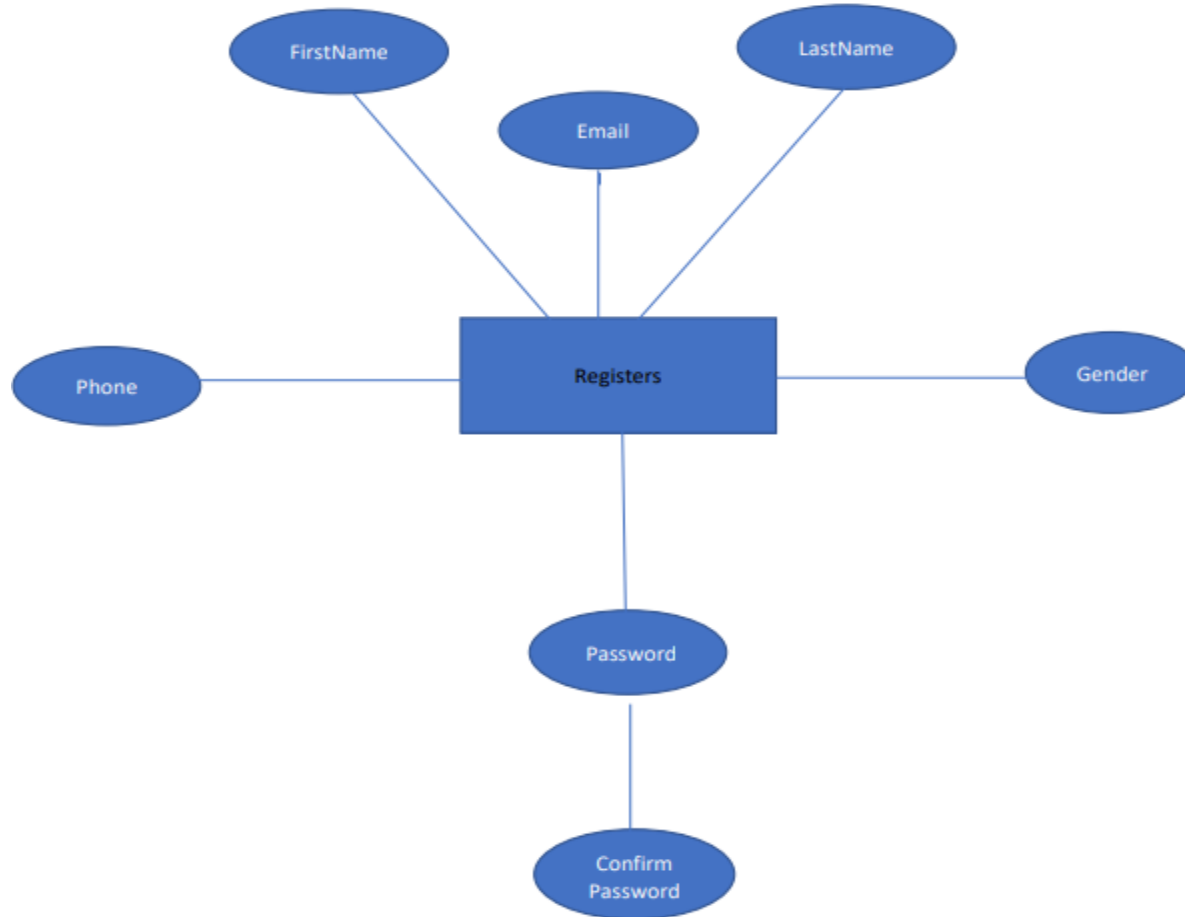
Sequence Diagram



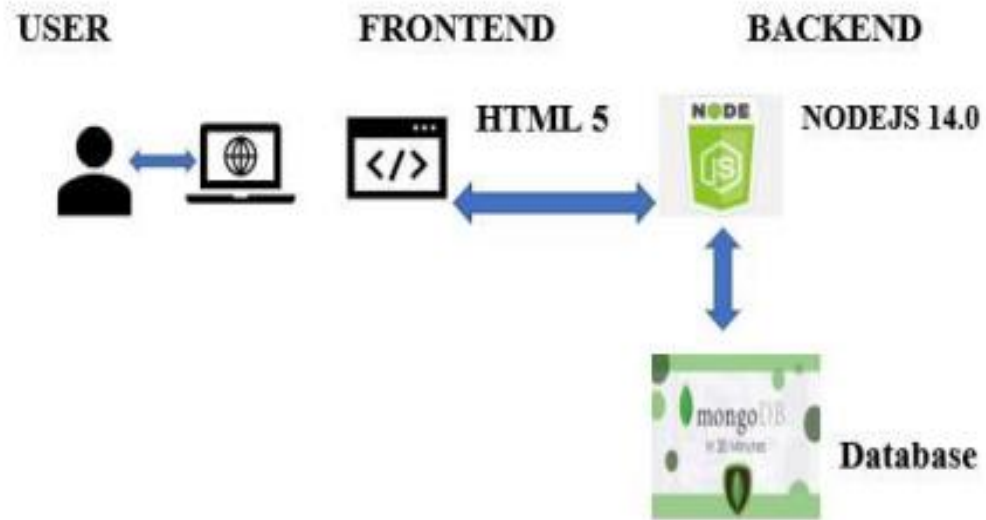
Data Flow Diagram (DFD)



Entity Relationship Diagram(ER)

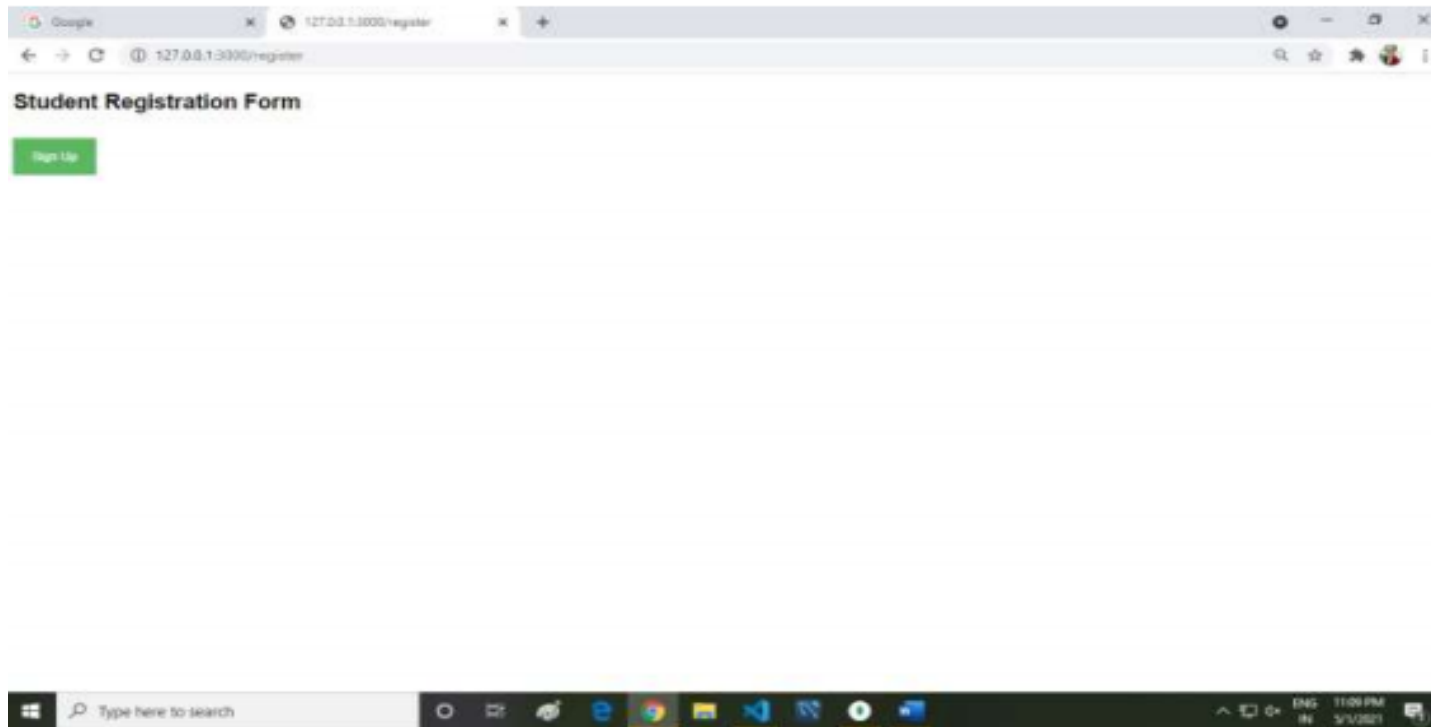


Project Architecture



User Interface Snapshots

Signup page:



Google 127.0.0.1:5555/register

Sign Up

Please fill in this form to create an account.

First Name
john

Last Name
doe

Email
john.doe@gmail.com

Password
123456

Confirm Password
123456

11:09 PM 12/1/2021

Google 127.0.0.1:5555/register

john

Last Name
doe

Email
john.doe@gmail.com

Password
123456

Confirm Password
123456

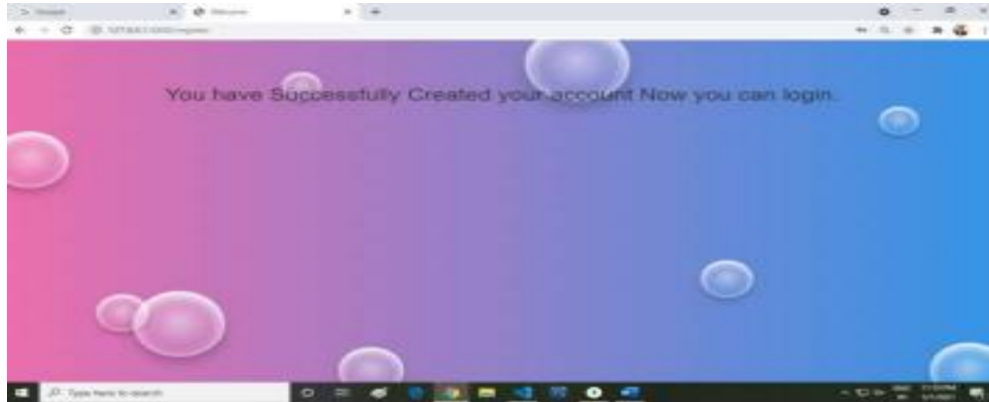
Phone
789456123

Gender
☒ Male ☐ Female

By creating an account you agree to our [Terms & Privacy](#)

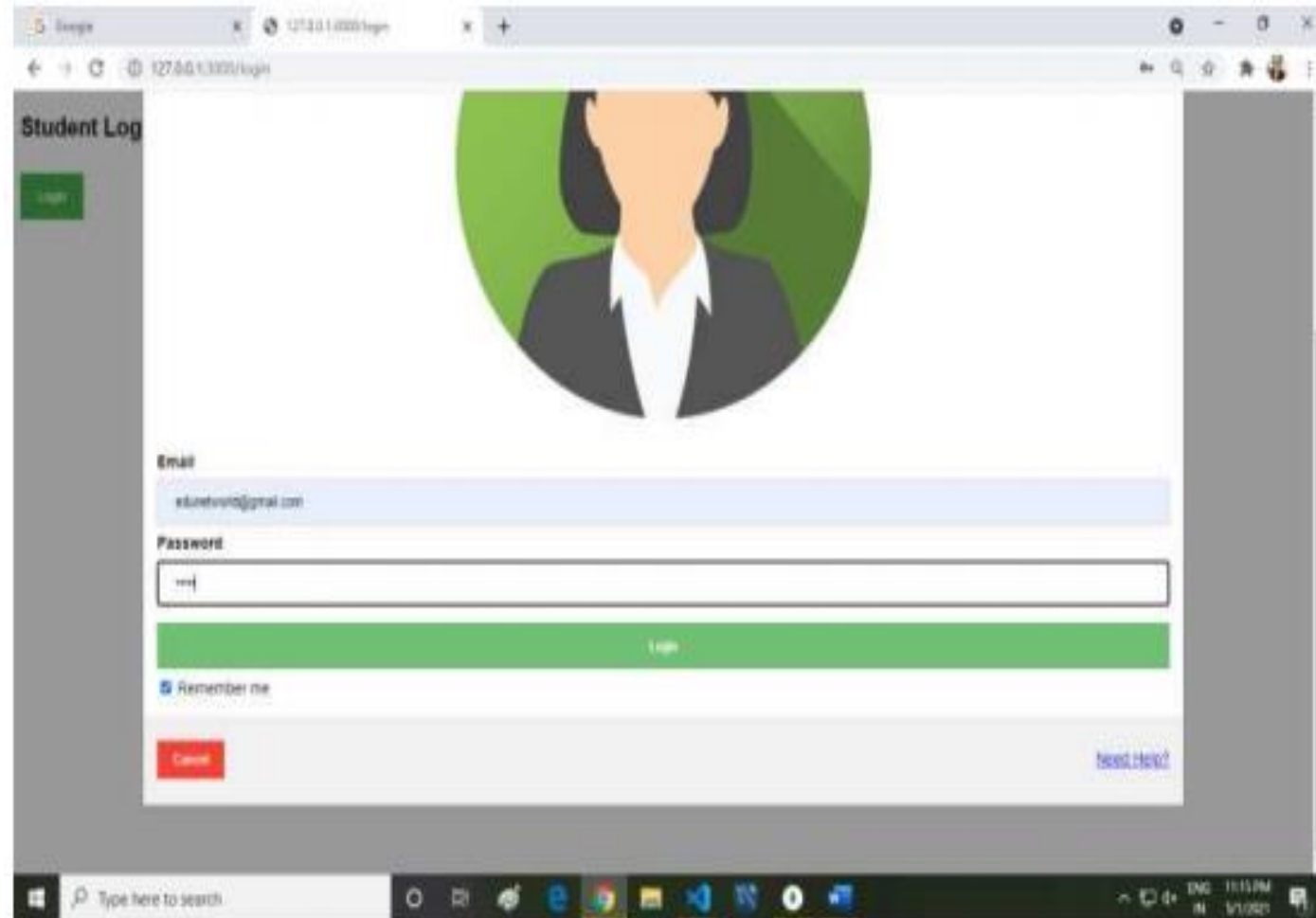
Cancel Sign Up

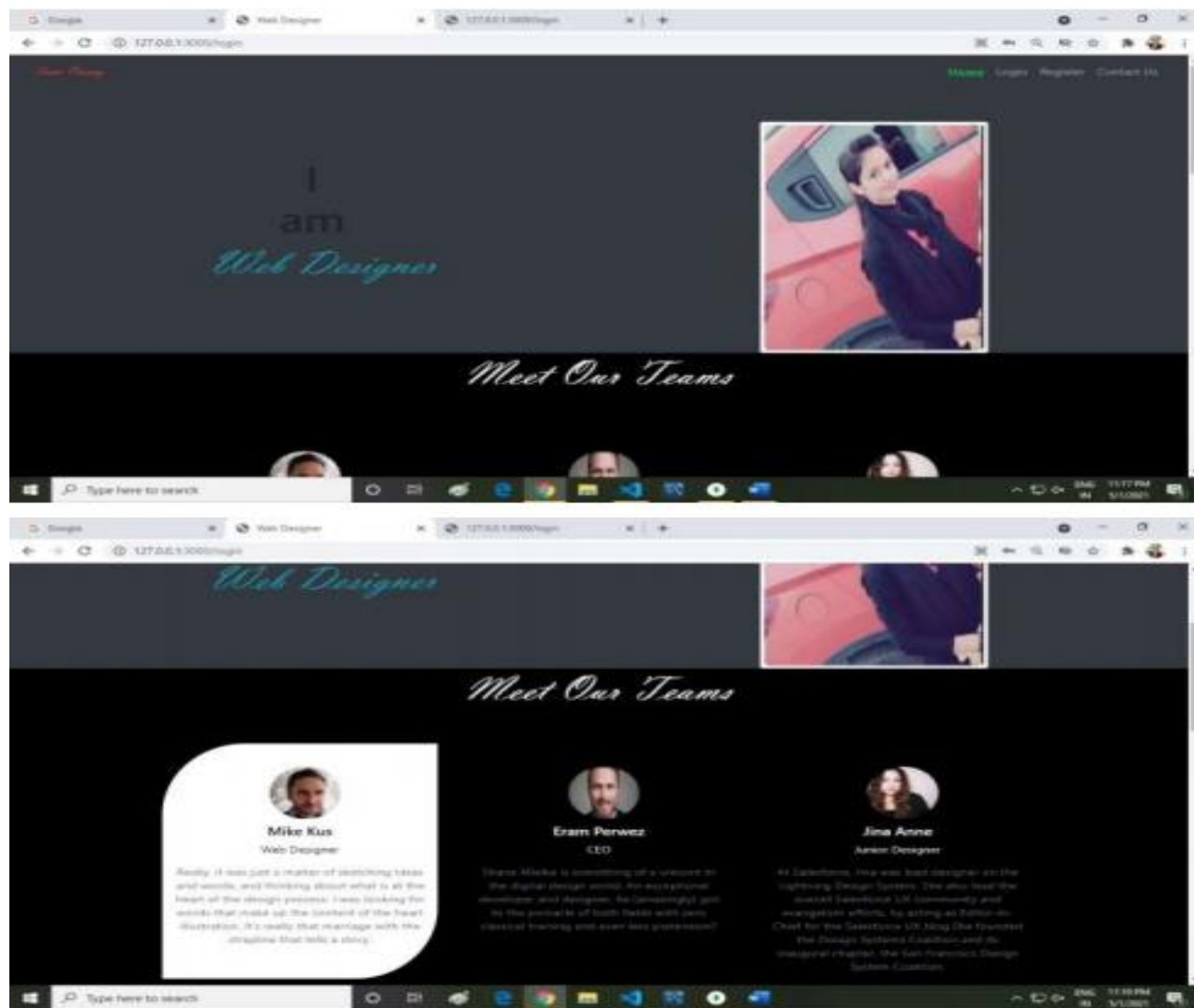
11:10 PM 12/1/2021

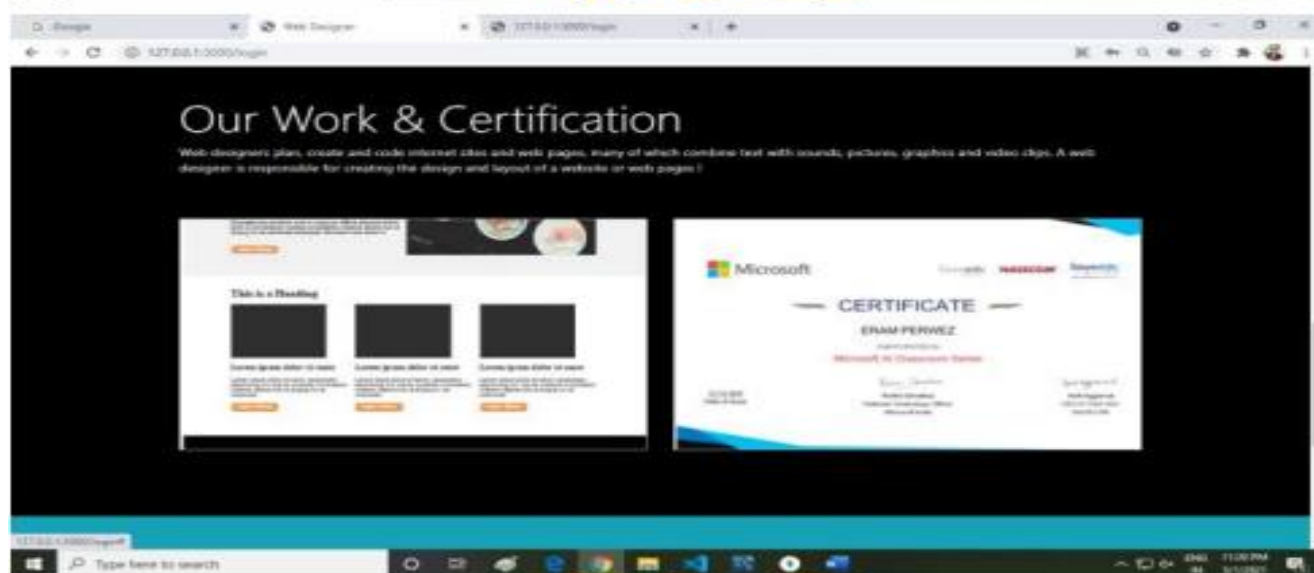
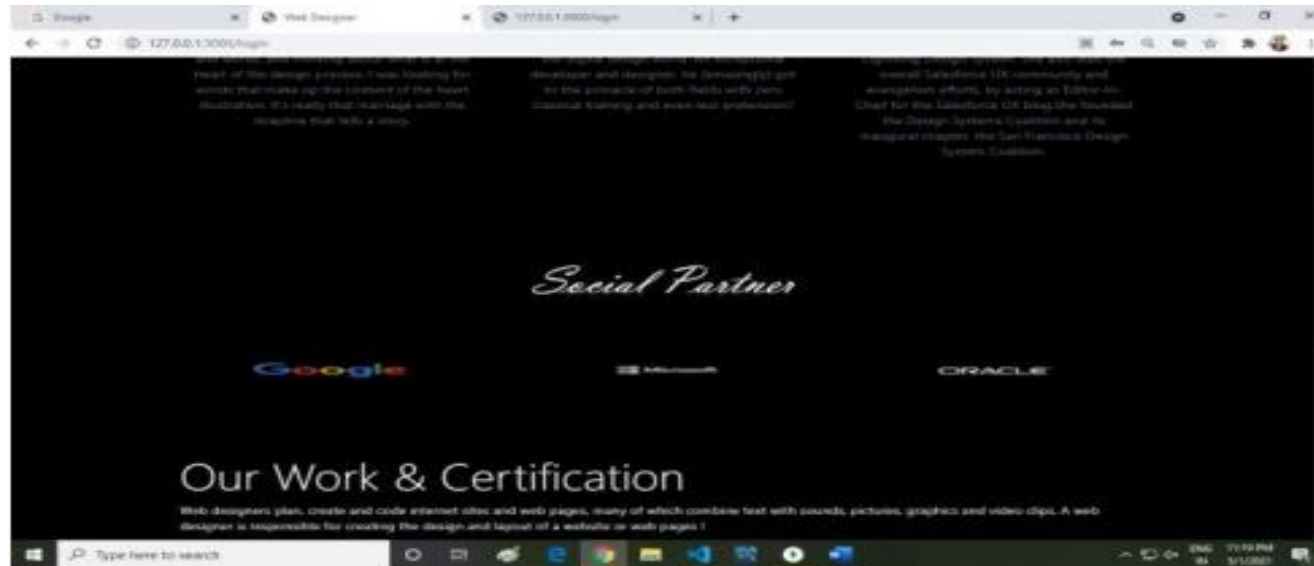


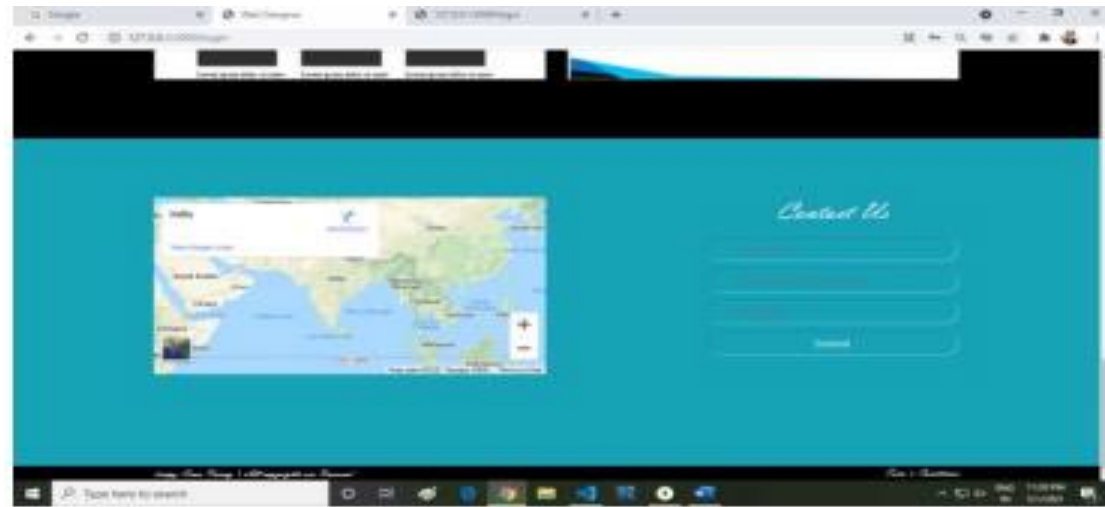
Login page:











Contact Us page:

A screenshot of a web browser displaying a 'Contact Form'. The form is titled 'Contact Form' and contains five input fields: 'First Name', 'Last Name', 'Email', 'Country', and 'Message'. Each field has a placeholder text. The 'Country' field is a dropdown menu. At the bottom of the form, there is a green 'Submit' button. The browser's address bar shows the URL 'http://localhost:3000/contact'. The Windows taskbar is visible at the bottom.

Database Structure

Database (MongoDB) :

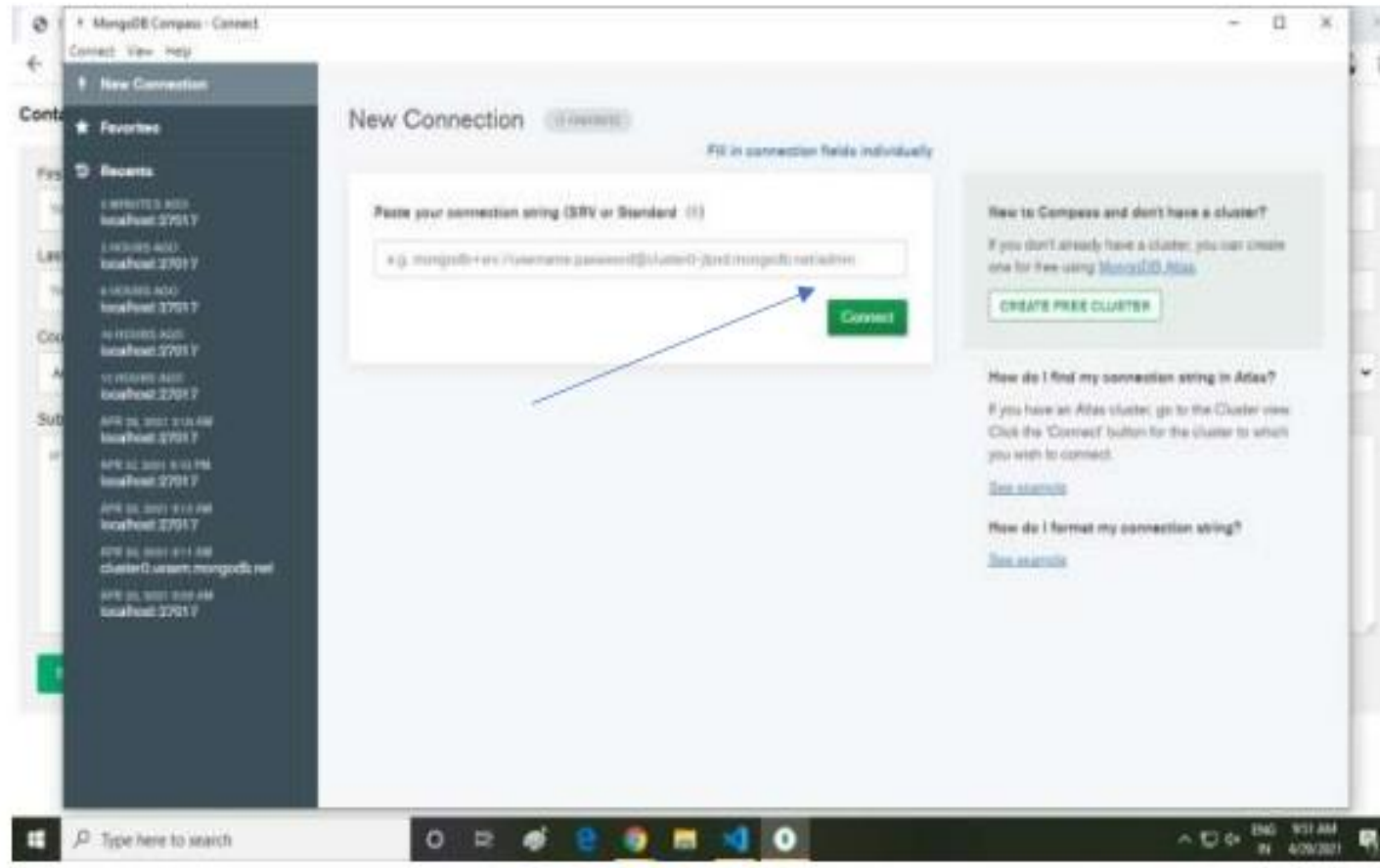
Database Name: - Registrationdb

Collection Name: - Registers

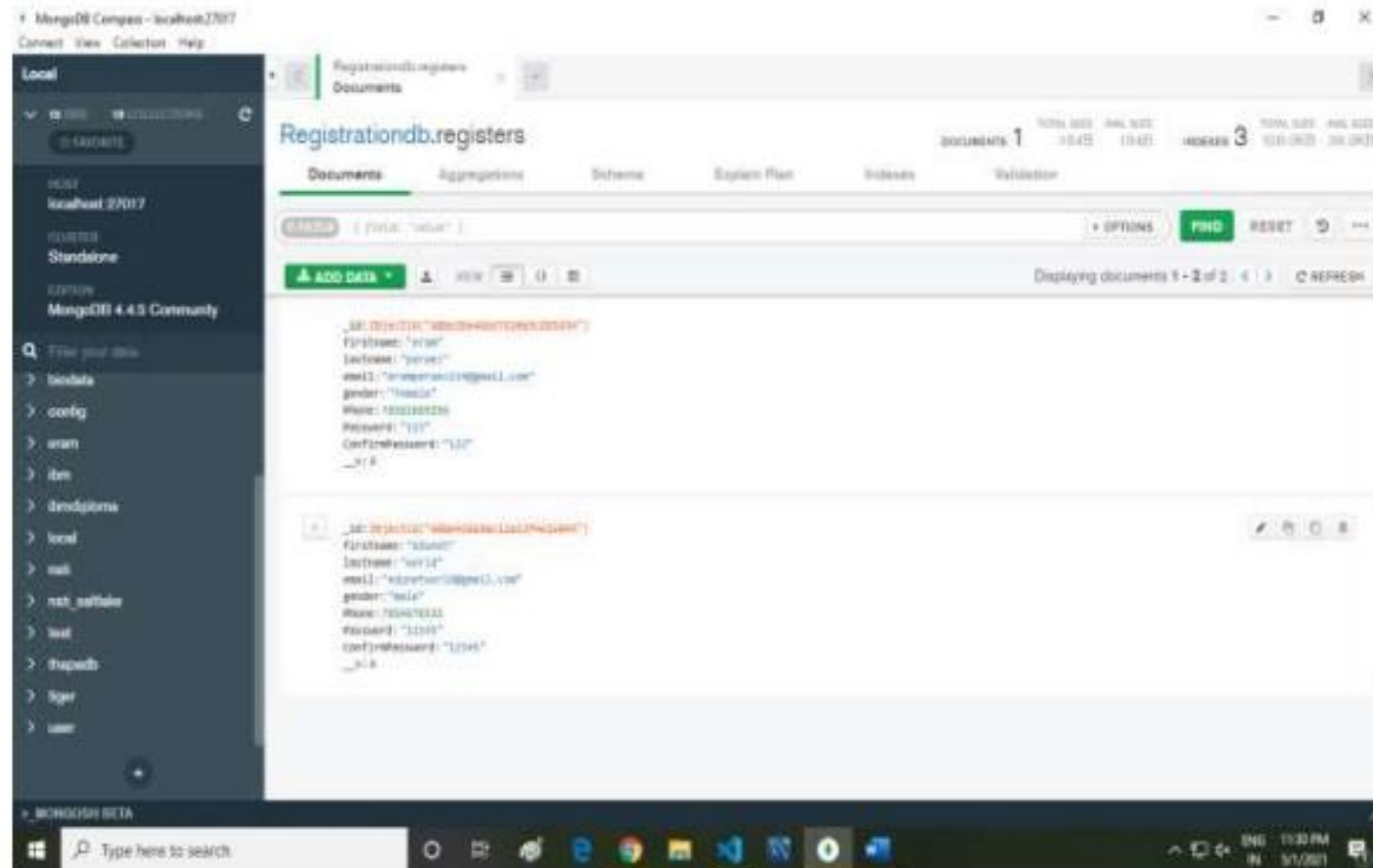
Structure:

_id	By default, In MongoDB
Firstname	Enter the name of the user.
Lastname	Enter the password of the user.
email	Enter the email_id of the user.
gender	Enter the type of gender
Phone	Enter Phone Number
Password	Enter Password
Confirm Password	Enter and confirm Password

MongoDB Compass(Database)



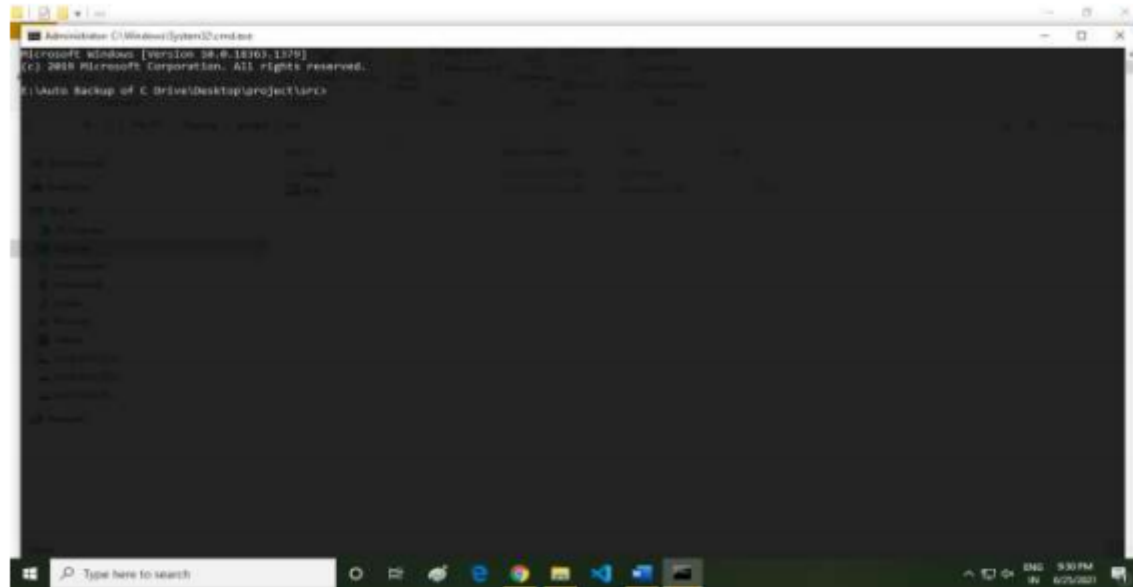
Inserted Data(Database)



Application Deployment

In this project I am going to deploy our project on ibmcloud via ibmcloud cli.

Open cmd



Give credentials and select Dallas Region(us-south).

```
Administrator C:\Windows\System32\cmd.exe - RunAsy0 login -a https://cloud.ibm.com -u passcode -p CD4IzGE5nc
Microsoft Windows [version 10.0.18130.1279]
(c) 2019 Microsoft Corporation. All rights reserved.

C:\>cd C:\Users\user\Desktop\project\src\ibmcloud login -a https://cloud.ibm.com -u passcode -p CD4IzGE5nc
API endpoint: https://cloud.ibm.com
Authenticating...

Targeted account: Iram Perwez's Account [810b5f06x2d1f99w01f9dab030120c0]

Select a region (or press enter to skip):
1. au-syd
2. in-che
3. jp-osa
4. jp-tok
5. kr-seo
6. us-de
7. us-gb
8. ca-tor
9. us-south
10. us-east
11. br-sao
Enter a number: 1
```

Target Cloud Foundry

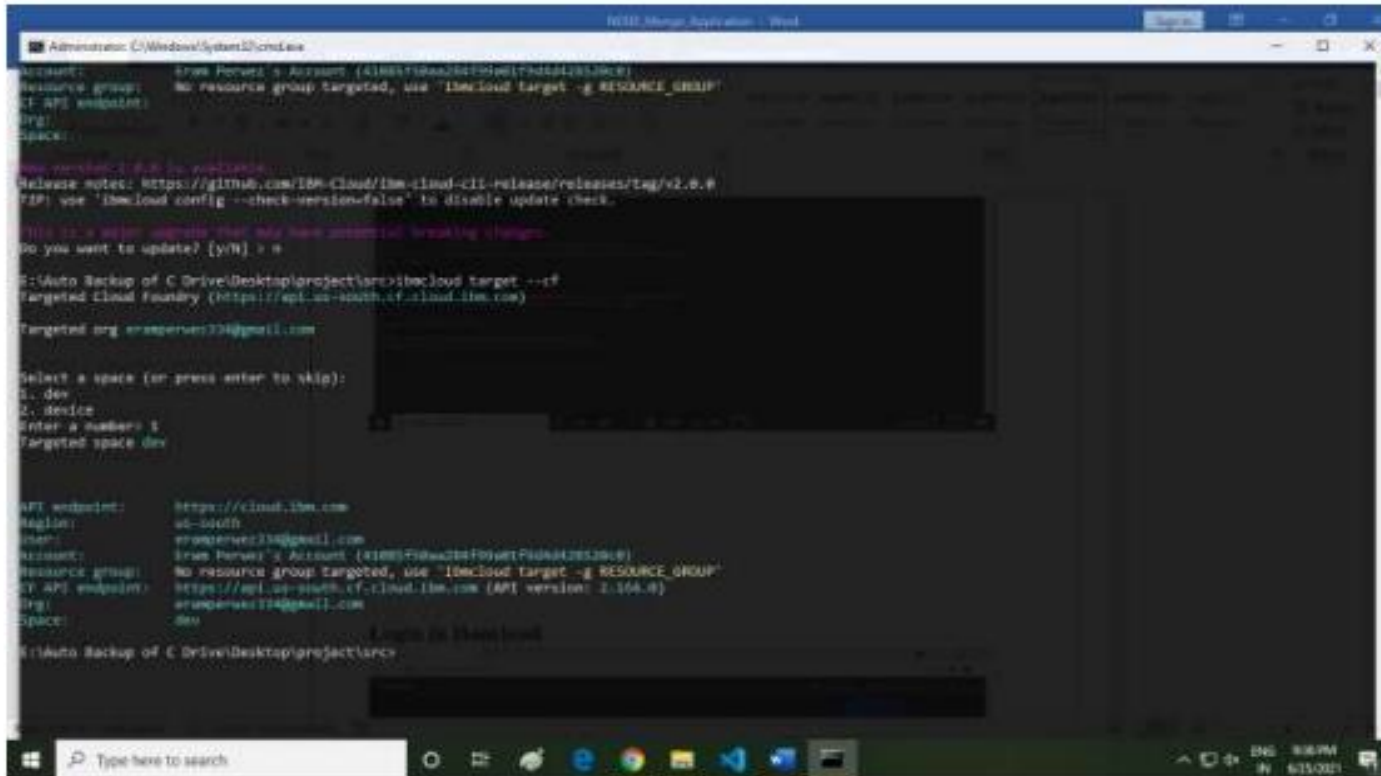
```
Administrator@C:\Windows\system32\cmd.exe - ibmcloud target --cf
1. ap-south
2. eu-central-1
3. eu-west-1
4. us-east-1
5. us-east-2
6. us-west-1
7. us-west-2
8. us-west-3
9. us-west-4
10. us-west-5
11. us-west-6
Enter a number: 9
Targeted region us-west-4

API endpoint: https://cloud.ibm.com
Region: us-west-4
Username: wangmrcn114@gmail.com
Account: Free Service Account (0180170a410c70a61f8d04018181818181)
Resource group: No resource group targeted, use 'ibmcloud target -g RESOURCE_GROUP'
Org:
Space:

New version 2.6.2 is available
Release notes: https://github.com/IBM-Cloud/ibm-cloud-cli/releases/tag/v2.6.2
(TIP) use 'ibmcloud config --check-version=false' to disable update check.
There is a newer version that you have potential breaking changes.
Do you want to update? (y/n) > n

C:\Auto Backup of C Drive\Desktop\project\src>ibmcloud target --cf
Targeted Cloud Foundry (https://api.us-south.cf.cloud.ibm.com)
```

Add Spaces (dev)



```
Administrator: C:\Windows\System32\cmd.exe
Account:      Erwan Perwez's Account (41885f18aa2b47f96e1794d418539c8)
Resource group: No resource group targeted, use "ibmcloud target -g RESOURCE_GROUP"
CF API endpoint:
Org:
Space:

New version 2.0.0 is available.
Release notes: https://github.com/IBM-Cloud/ibm-cloud-cli/releases/tag/v2.0.0
TIP: use 'ibmcloud config --check-version=false' to disable update check.

This is a major update that may have potential breaking changes.
Do you want to update? [y/N] > n

C:\Auto Backup of C Drive\Desktop\project\src>ibmcloud target --cf
Targeted Cloud Foundry (https://api.us-south.cf.cloud.ibm.com)


Targeted org erwanperwez334@gmail.com

Select a space (or press enter to skip):
1. dev
2. device
Enter a number: 1
Targeted space dev

API endpoint:      https://cloud.ibm.com
Region:            us-south
User:              erwanperwez334@gmail.com
Account:           Erwan Perwez's Account (41885f18aa2b47f96e1794d418539c8)
Resource group:    No resource group targeted, use "ibmcloud target -g RESOURCE_GROUP"
CF API endpoint:   https://api.us-south.cf.cloud.ibm.com (API version: 2.104.0)
Org:              erwanperwez334@gmail.com
Space:            dev

C:\Auto Backup of C Drive\Desktop\project\src>
```


Push your application now



The screenshot shows a Windows terminal window titled "Address: C:\Windows\System32\cmd.exe - ibmcloud cf push". The terminal displays the following output for the command 'ibmcloud cf push':

```

Enter a number: 1
Targeted space dev

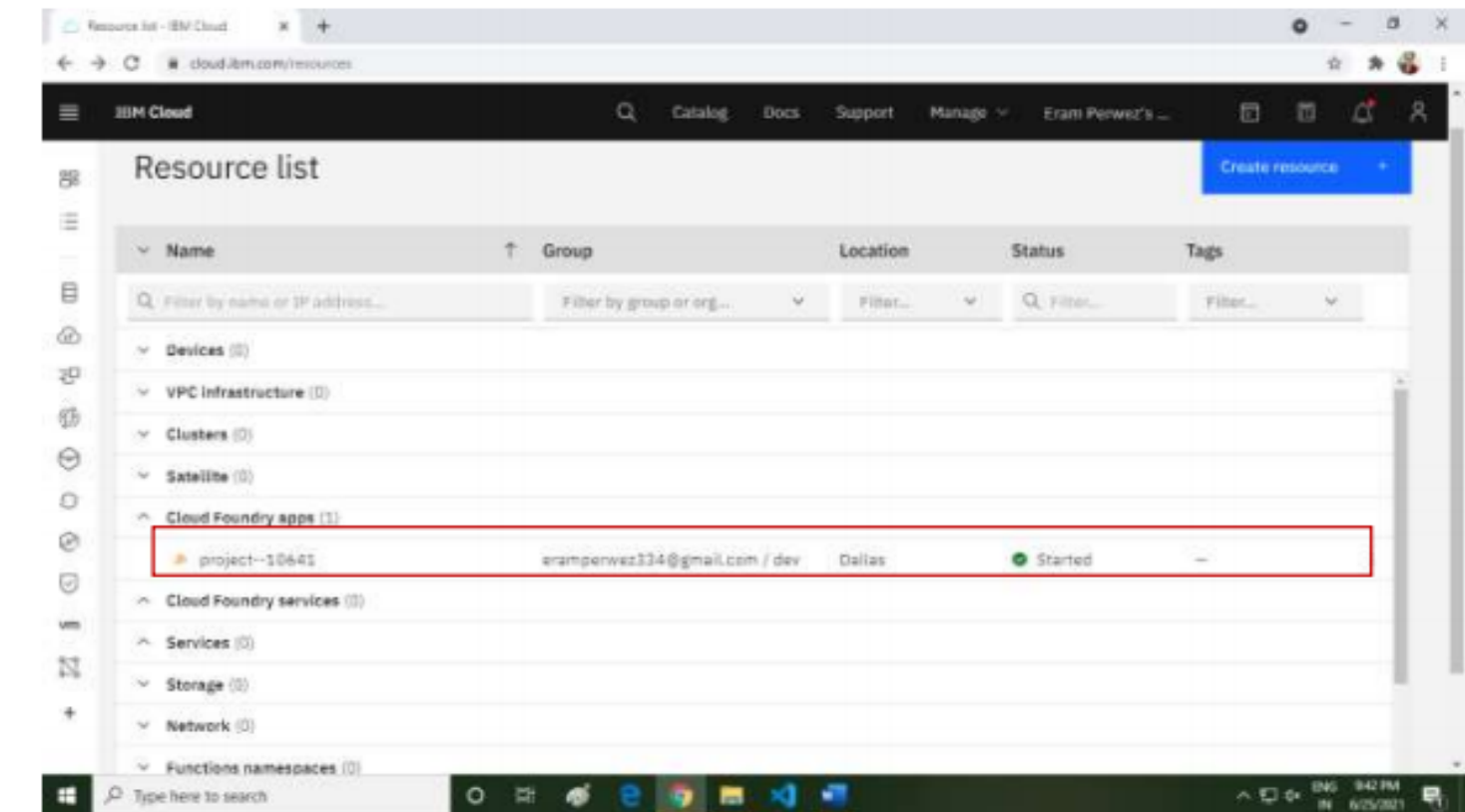
API endpoint: https://cloud.ibm.com
Region: us-south
User: arxperwci354@gmail.com
Account: Free Perver's Account (X1885756xz304F9ed1F9otd281326-0)
Resource group: No resource group targeted, use "ibmcloud target -g RESOURC_GROUP"
CF API endpoint: https://api.us-south.cf.cloud.ibm.com (API version: 2.100.0)
Org: arxperwci354@gmail.com
Space: dev

C:\Auto Backup of C Drive\Desktop\project>ibmcloud cf push
ibmcloud cf push
Smoking 'cf push' ...

```

The terminal also shows a "Login to ibmcloud" prompt, which is partially obscured by a black box.

Login in IBM cloud and go to Resource List



The screenshot displays the IBM Cloud Resource List interface. The page title is "Resource list" with a "Create resource" button. The table has the following columns: Name, Group, Location, Status, and Tags. The table is filtered by "Name or IP address...". The resources are grouped by category, including Devices, VPC Infrastructure, Clusters, Satellite, Cloud Foundry apps, Cloud Foundry services, Services, Storage, Network, and Functions namespaces. A red box highlights the resource "project--10645" under the "Cloud Foundry apps" category. The resource is located in "Dallas" and has a status of "Started".

Name	Group	Location	Status	Tags
project--10645	erampenvez334@gmail.com / dev	Dallas	Started	-

Conclusion

- ▶ While building an application using NodeJS, Express and MongoDB, it's important to make sure everything I need is installed and configured correctly. In this project, I have covered those key steps in the process, and we also walked through the code needed to make the application work.

References

- ▶ <http://www.w3schools.com/>
- ▶ <http://www.tutorialspoint.com/>
- ▶ <http://www.github.com/>
- ▶ <http://www.nodejs.org/>

Thank you!

