

Project Development Phase Works Done on Each Sprints

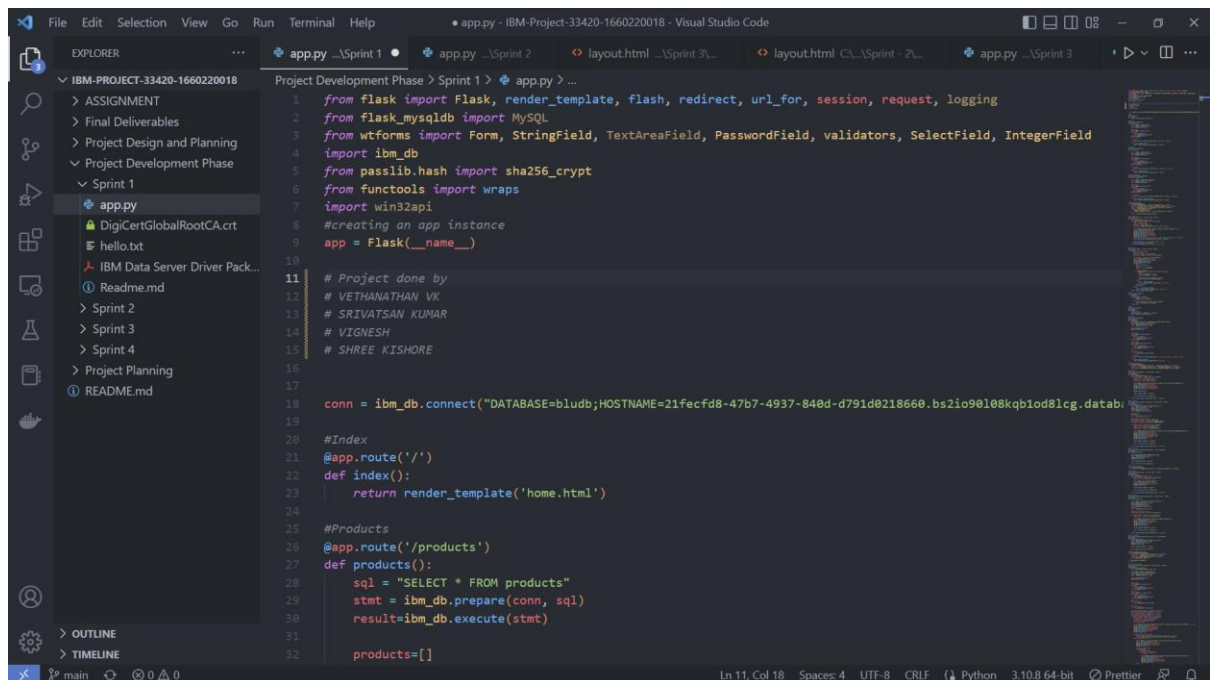
Date	18-10-2022
Team ID	PNT2022TMID15450
Project Name	Inventory Management System for Retailers

Sprint split-ups

1. Sprint 1 – Backend
2. Sprint 2 – Frontend
3. Sprint 3 – IBM Cloud Integration + Integration of SendGrid
4. Sprint 4 – Deploying the application using Docker and Kubernetes

Sprint 1 – Backend:

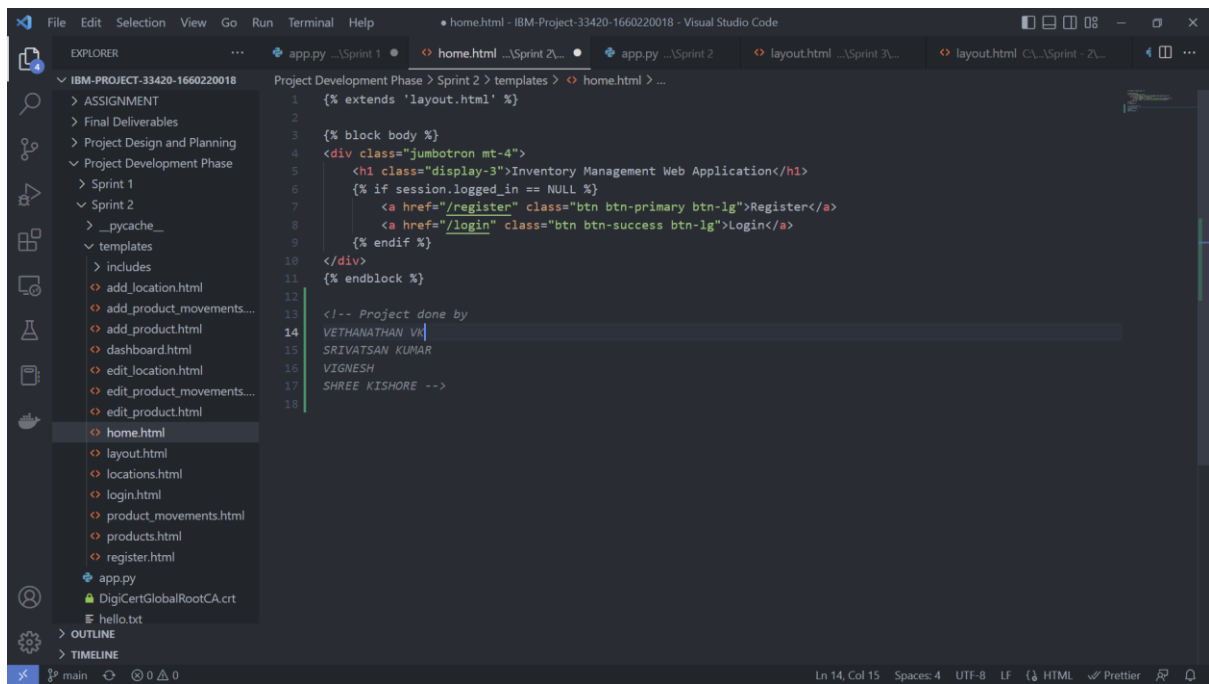
All the routes to each page and APIs are created. Example, (For Products page)



```
1 from flask import Flask, render_template, flash, redirect, url_for, session, request, logging
2 from flask_mysql import MySQL
3 from wtforms import Form, StringField, TextAreaField, PasswordField, validators, SelectField, IntegerField
4 import ibm_db
5 from passlib.hash import sha256_crypt
6 from functools import wraps
7 import win32api
8 #creating an app instance
9 app = Flask(__name__)
10
11 # Project done by
12 # VETHANATHAN VK
13 # SRIVATSAN KUMAR
14 # VIGNESH
15 # SHREE KISHORE
16
17
18 conn = ibm_db.connect("DATABASE=bludb;HOSTNAME=21fecfd8-47b7-4937-840d-d791d0218660.bs2io90108kqb1od81cg.datab
19
20 #Index
21 @app.route('/')
22 def index():
23     return render_template('home.html')
24
25 #Products
26 @app.route('/products')
27 def products():
28     sql = "SELECT * FROM products"
29     stmt = ibm_db.prepare(conn, sql)
30     result=ibm_db.execute(stmt)
31
32     products=[]
```

Sprint 2 – Frontend:

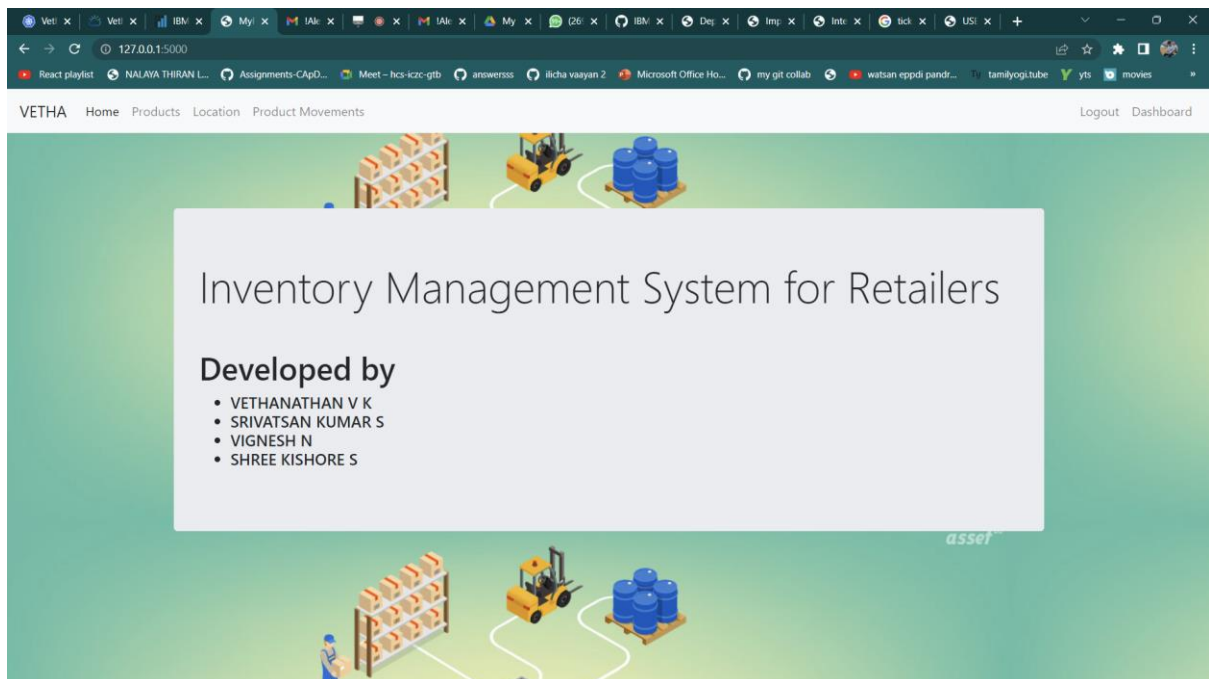
The frontend is written using HTML, CSS (using Bootstrap) and JavaScript for all the pages to which the routes created in Sprint 1. For Example, (The Hierarchy of different pages and the code for login page)



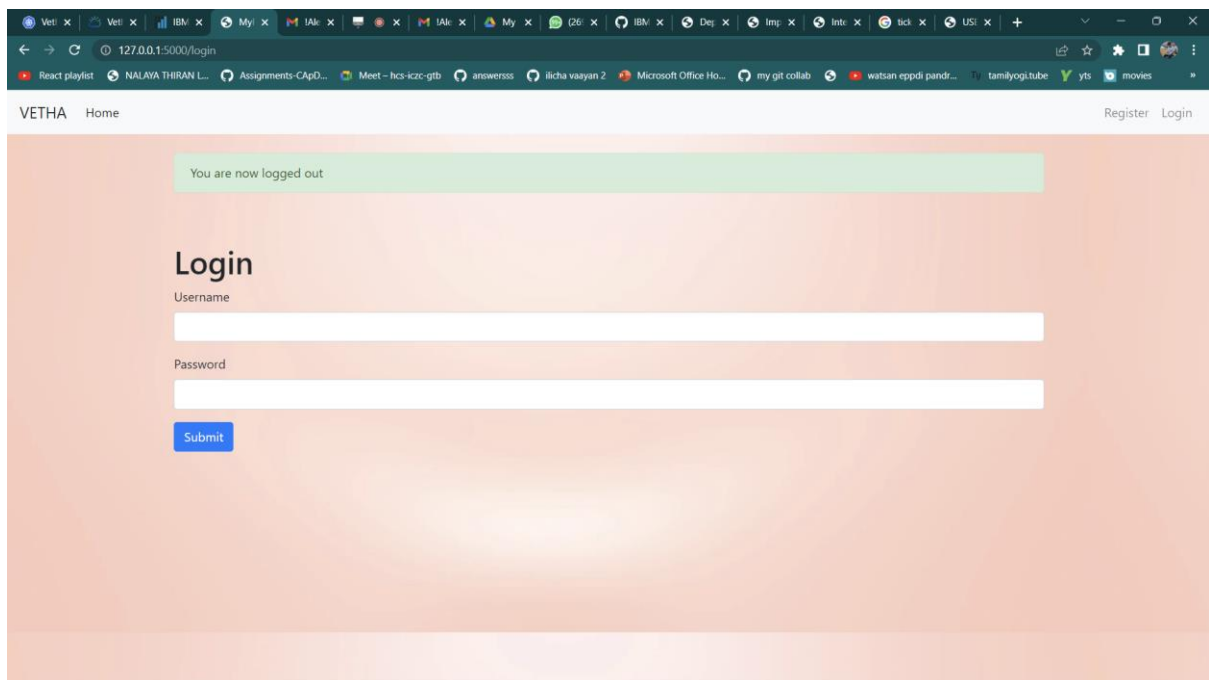
```
1 {% extends 'layout.html' %}
2
3 {% block body %}
4 <div class="jumbotron mt-4">
5   <h1 class="display-3">Inventory Management Web Application</h1>
6   {% if session.logged_in == NULL %}
7     <a href="/register" class="btn btn-primary btn-lg">Register</a>
8     <a href="/login" class="btn btn-success btn-lg">Login</a>
9   {% endif %}
10 </div>
11 {% endblock %}
12
13 <!-- Project done by
14 VETHANATHAN VI
15 SRIVATSAN KUMAR
16 VIGNESH
17 SHREE KISHORE -->
```

SAMPLE FRONTEND

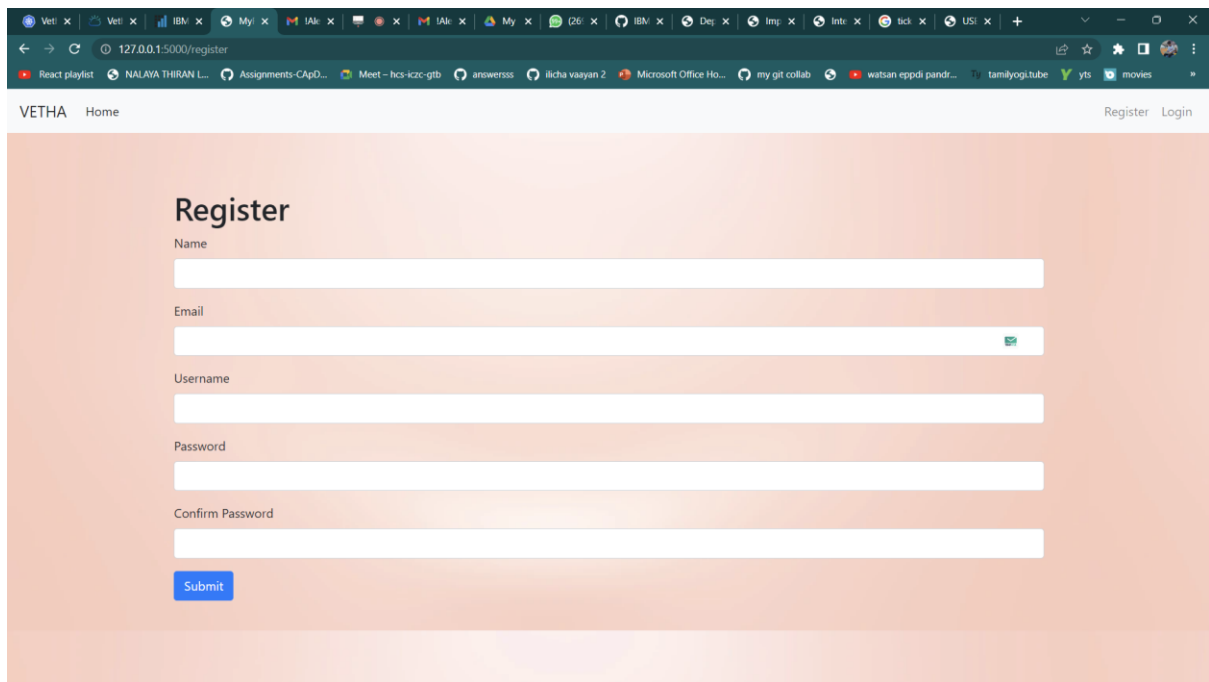
HOME PAGE :



LOGIN PAGE:



SIGNUP PAGE:



A screenshot of a web browser showing the 'Register' page of an application named 'VETHA'. The browser's address bar shows the URL '127.0.0.1:5000/register'. The page has a light orange background. At the top, there is a navigation bar with 'VETHA' and 'Home' on the left, and 'Register' and 'Login' on the right. The main heading is 'Register'. Below it are five input fields: 'Name', 'Email' (with an email icon), 'Username', 'Password', and 'Confirm Password'. A blue 'Submit' button is at the bottom left of the form area.

VETHA Home Register Login

Register

Name

Email

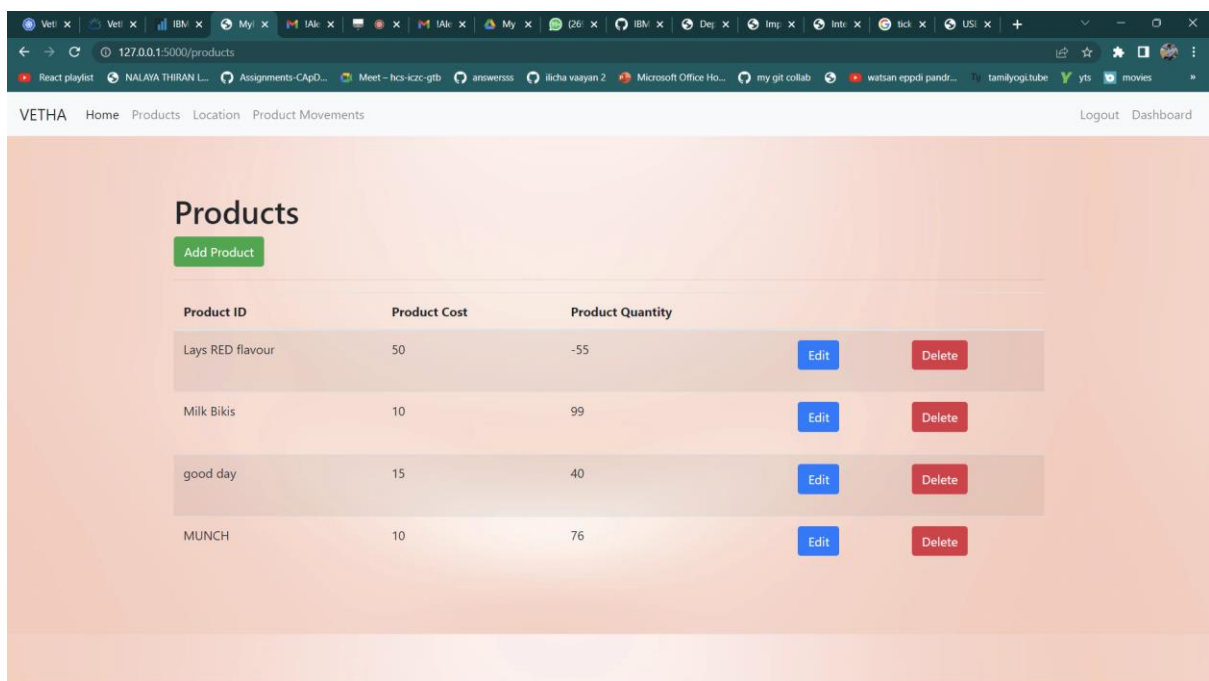
Username

Password

Confirm Password

Submit

Products page:



A screenshot of a web browser showing the 'Products' page of the 'VETHA' application. The browser's address bar shows the URL '127.0.0.1:5000/products'. The page has a light orange background. At the top, there is a navigation bar with 'VETHA', 'Home', 'Products', 'Location', and 'Product Movements' on the left, and 'Logout' and 'Dashboard' on the right. The main heading is 'Products'. Below it is a green 'Add Product' button. A table lists four products with columns for 'Product ID', 'Product Cost', and 'Product Quantity'. Each row has 'Edit' and 'Delete' buttons.

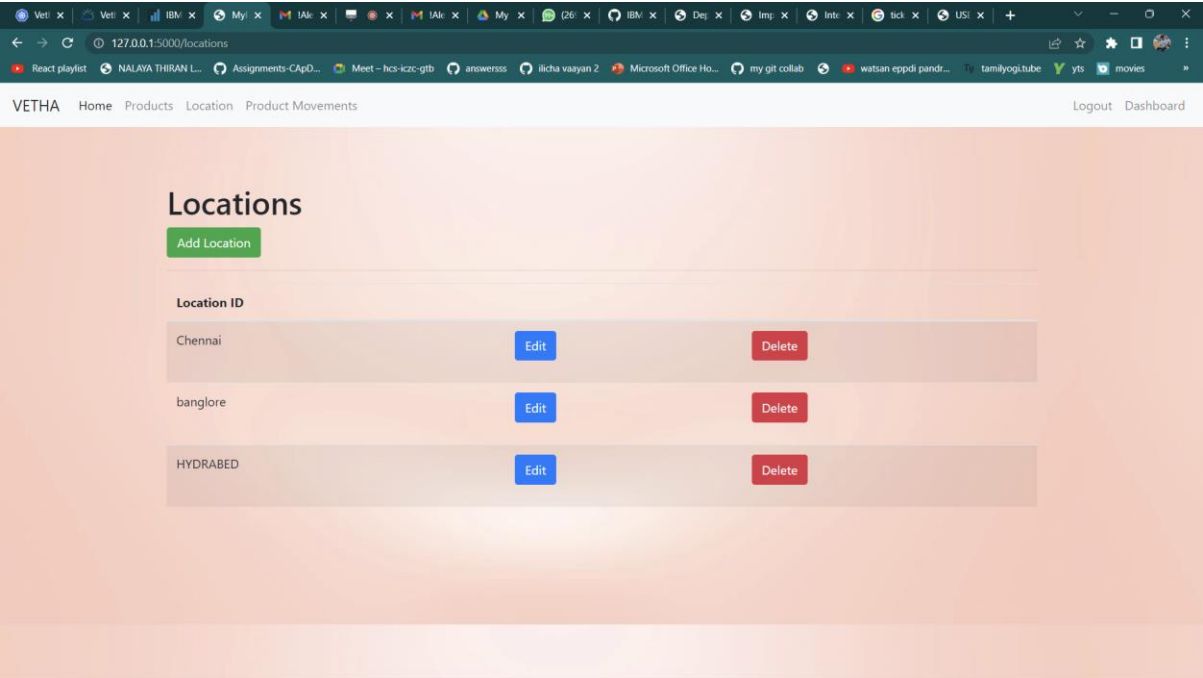
VETHA Home Products Location Product Movements Logout Dashboard

Products

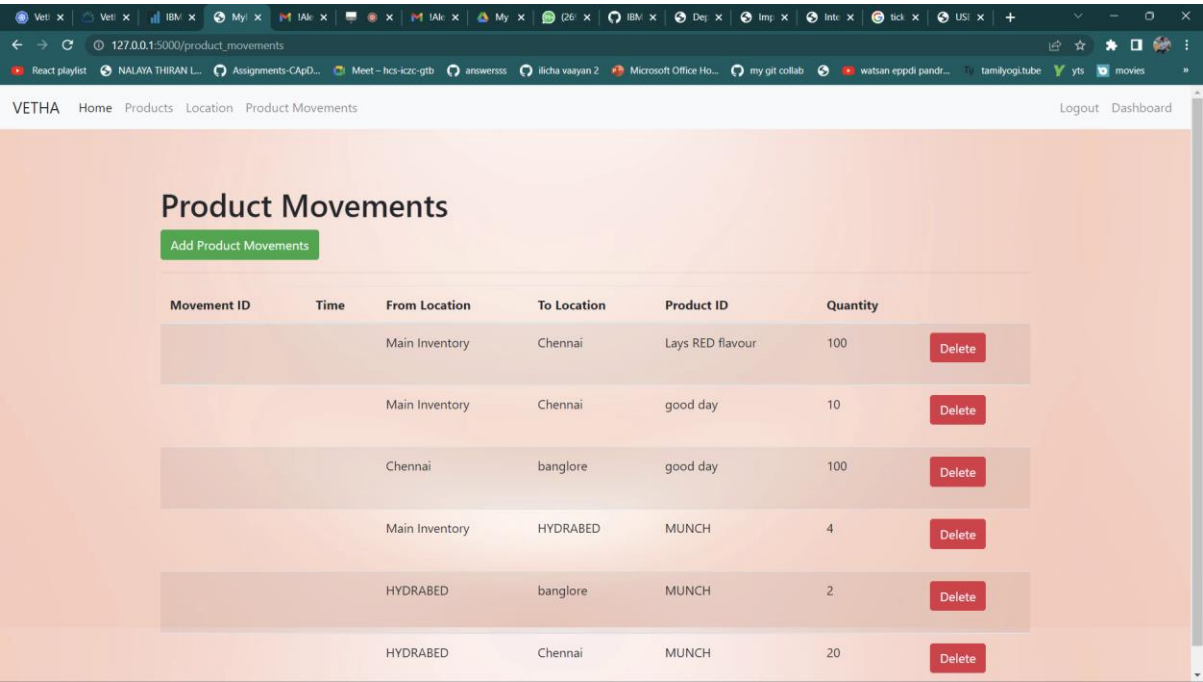
Add Product

Product ID	Product Cost	Product Quantity		
Lays RED flavour	50	-55	Edit	Delete
Milk Bikis	10	99	Edit	Delete
good day	15	40	Edit	Delete
MUNCH	10	76	Edit	Delete

Location page:



Product movements:



Dashboard page:

VETHA Home Products Location Product Movements Logout Dashboard

Dashboard Welcome vethanathan

Chennai

Product	Warehouse	Qty
Lays RED flavour	Chennai	100
good day	Chennai	-90
MUNCH	Chennai	20

banglore

Product	Warehouse	Qty
good day	banglore	100
MUNCH	banglore	2

HYDRABED

Sprint 3:

- IBM Cloud Integration + Integration of SendGrid: IBM Cloud Integration: 5 tables created for our project,

IBM Db2 on Cloud

Data objects Saved objects

Filter objects

SQL

NRN19864

- Tables
 - BALANCE_PRODUCT
 - LOCATIONS
 - PERSONS
 - PRODUCTMOVEMENTS
 - PRODUCTS
 - PRODUCT_BALANCE
 - USERS
- Views
- MQTs
- Aliases
- Nicknames

*Untitled - 1

```
1 drop table productmovements;
2 create table productmovements(from_location varchar(255),to_location varchar(255),qty int,product_id varchar(255));
3
```

History

Find history

Script	Date	Status	Runtime
Untitled - 1	Nov 18, 2022 11:52:21 AM	2	0.095 s
drop table productmovements		✓	0.043 s
create table productmovements(from_location varchar(255),to_location va...		✓	0.052 s
Untitled - 1	Nov 18, 2022 11:49:59 AM	1	0.013 s
insert into product_balance(qty,product_id,location_id) values (5,'good day...		✓	0.013 s
Untitled - 1	Nov 18, 2022 11:49:32 AM	2	0.060 s
create table product_balance(qty int,product_id varchar(255),location_id va...		✓	0.049 s
insert into product_balance(qty,product_id,location_id) values (2,'Milk Bik...		✓	0.011 s
Untitled - 1	Nov 18, 2022 11:47:39 AM	1	0.034 s
drop table product_balance		✓	0.034 s
Untitled - 1	Nov 18, 2022 11:40:11 AM	1	0.021 s
insert into product_balance (qty,product_id,location_id) values(2,'Milk Bik...		✗	0.021 s

IBM Db2 on Cloud

Load Data Load History Tables Views Indexes Aliases MQTs Sequences Application objects

Find schemas or tables

Refresh

Tables

New table

Name	Schema	Properties
BALANCE_PRODUCT	NRN19864	...
LOCATIONS	NRN19864	...
PERSONS	NRN19864	...
PRODUCTMOVEMENTS	NRN19864	...
PRODUCTS	NRN19864	...
PRODUCT_BALANCE	NRN19864	...
USERS	NRN19864	...

Total: 7, selected: 7

Table definition

PRODUCTMOVEMENTS

Approximate 0 rows (0 KB)
Updated on 2022-11-18 09:55:29

Name	Data type	Nullable	Length	Scale
FROM_LOCATION	VARCHAR	Y	255	0
TO_LOCATION	VARCHAR	Y	255	0
QTY	INTEGER	Y		0
PRODUCT_ID	VARCHAR	Y	255	0

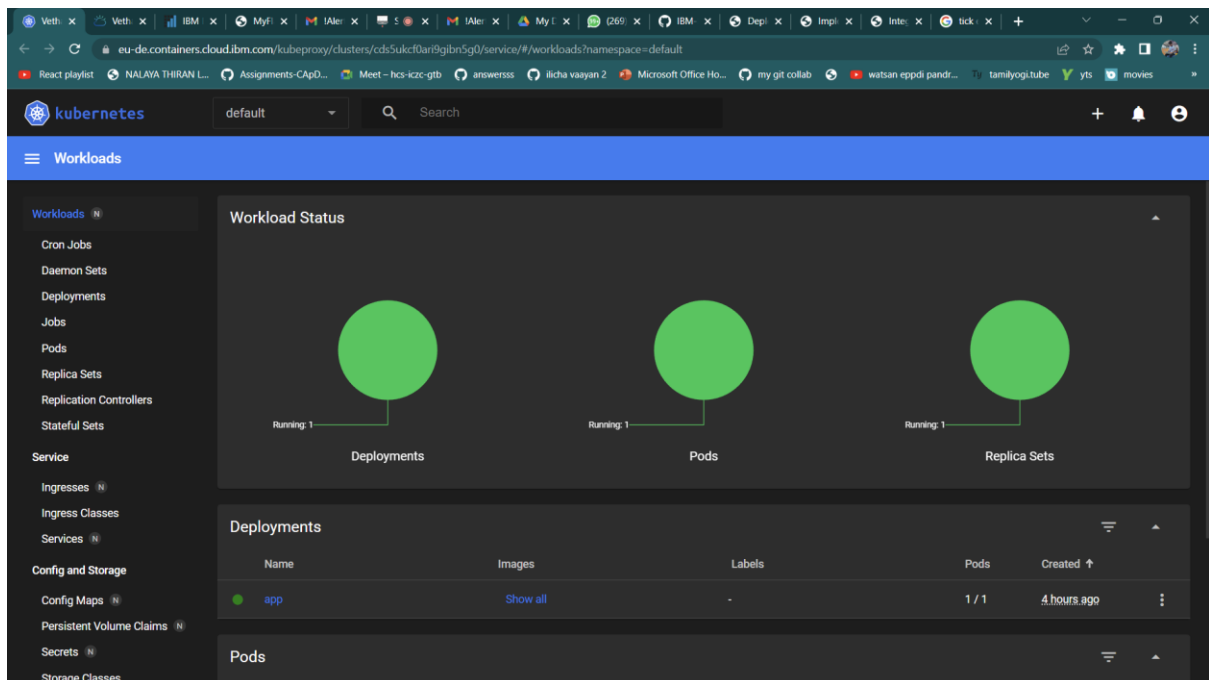
View data

The screenshot shows the IBM Db2 on Cloud web interface. The top navigation bar includes tabs for Load Data, Load History, Tables, Views, Indexes, Aliases, MQTs, Sequences, and Application objects. The 'Tables' tab is selected, displaying a table named 'NRN19864.USERS'. A 'Back' button is in the top right corner. Below the table name, there is a table with four columns: NAME, EMAIL, USERNAME, and PASSWORD. The table contains one row of data. An 'Export to CSV' button is located to the right of the table. The left sidebar contains icons for SQL, Tables, Views, Indexes, Aliases, MQTs, Sequences, and Application objects.

NAME	EMAIL	USERNAME	PASSWORD
Vethanathan V K	vethanathanvk@gmail.com	vethanathan	\$5\$rounds=535000\$8rUJfHPkCeZyLZux\$Xlqiv92/AyR0z/gGI9aqZ5.AkHLjggGStMVvaQmdg11

Sprint 4:

Deployment



IBM Cloud

Search resources and products...

Clusters / Vethanathan Normal Expires in 30 days [Add tags](#) [Help](#) [Kubernetes dashboard](#) [Actions...](#)

Overview

Worker nodes

Worker pools

DevOps New

Pool: Filter... Search

<input type="checkbox"/>	Name	Status	Worker pool	Zone	Private IP	Public IP	Version
<input checked="" type="checkbox"/>	00000010	Normal	default	Milan 01	10.144.183.53	169.51.200.58	1.24.7_1543

Items per page: 25 1-1 of 1 item 1 of 1 page [←](#) [→](#)

Docker Desktop [Upgrade plan](#) vethanathan

Containers [Give feedback](#) [Learn more](#)

A container packages up code and its dependencies so the application runs quickly and reliably from one computing environment to another. [Learn more](#)

☐ Only show running containers

<input type="checkbox"/>	NAME	IMAGE	STATUS	PORT(S)	STARTED	ACTIONS
<input type="checkbox"/>	quizzical_brahmagupta 7ecde2aed29a	app:latest	Running	5000:5000	3 hours ago	■ ⋮ 🗑

Showing 1 items

RAM 1.80GB CPU 0.06% Connected to Hub v4.13.1

Veti x Vet x IBM x My x IAl x x x IAl x My x (26 x IBM x De x Imp x Intr x tick x US x +

cloud.ibm.com/kubernetes/clusters/cds5ukcf0ari9gibn5g0/overview

React playlist NALAYA THIRAN L... Assignments-CapO... Meet - hcs-kzc-gtb anwersss ilichia vaayan 2 Microsoft Office Ho... my git collab watsan eppdi pandr... familyogitube yts movies

IBM Cloud Search resources and products... Catalog Manage VETHANATHAN VK's A... Help Kubernetes dashboard Actions...

Clusters / Vethanathan Normal Expires in 30 days Add tags

Overview

Worker nodes

Worker pools

DevOps New

Expires in 30 days:
Be sure to back up your data, your cluster will be deleted in 30 days. To access the full capabilities of the service, try out a [standard cluster](#).

Node status
1 of 1
Normal
Details

Add-on status
0 of 0
Normal
Details

Master status
Normal
Docs

Ingress status
Healthy
Docs

Details

Cluster ID
cds5ukcf0ari9gibn5g0

Version
1.24.8_1544

Infrastructure
Classic

Zones
Milan 01

Created
19/11/2022, 10:15 am

Resource group
Default

Image security enforcement
Enable

Node health

1 total nodes

Worker node details