Internet and Web Programming

CSE3002

Fall Semester 2020-21

Lab Assignment 12

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**Question:**

Write a Node JS program to perform database operations. Use MongoDB for data integration services.

i. Write a NodeJs program to perform debit operation for a bank account. The HTML form should get input for the account no and the amount to be debited. The entered amount has to be reduced from their balance. In the database, maintain account number and balance.

**Code:**

**index.js (Backend)**

const express = require('express');

const mongoose = require('mongoose');

const path = require('path');

mongoose.connect(

'mongodb+srv://IshaanOhri:hello123@urls.7gw6g.gcp.mongodb.net/Bank?retryWrites=true&w=majority',

{ useNewUrlParser: true, useUnifiedTopology: true, useCreateIndex: true },

(error) => {

if (error) {

console.log(`Database connection failed\n${error}`);

return;

}

console.log('Database connection successful');

}

);

const app = express();

app.use(express.json());

app.use(

express.static(path.join(\_\_dirname, './'), {

index: 'index.html'

})

);

const AccountSchema = new mongoose.Schema({

account: {

type: Number,

required: true

},

balance: {

type: Number,

required: true

}

});

const Account = mongoose.model('Account', AccountSchema);

app.post('/debit', async (req, res) => {

const { account, amount } = req.body;

const user = await Account.findOne({ account });

if(user.balance < amount){

res.send({

success: false,

message: 'Insufficient balance'

});

return;

}

user.balance -= amount;

await user.save();

res.send({

success: true,

message: `Balance deducted successfully. New balance is Rs ${user.balance}`

});

});

app.post('/create', async (req, res) => {

const { account, amount } = req.body;

const user = new Account({

account,

balance: amount

})

await user.save();

res.send({

success: true

});

});

const PORT = 4000;

app.listen(PORT, () => {

console.log(`Server running on http://localhost:${PORT}`);

});

**index.html**

<!DOCTYPE html>

<html lang="en">

<head>

<meta charset="UTF-8">

<meta name="viewport" content="width=device-width, initial-scale=1.0">

<title>Ishaan Ohri Bank</title>

<link rel="stylesheet" type="text/css" href="./style.css">

<script src="https://ajax.googleapis.com/ajax/libs/jquery/3.5.1/jquery.min.js"></script>

</head>

<body>

<div>

<p align="center">DEBIT FORM</p>

<p align="center">Enter Account Number:</p>

<input id="account" type="number" required>

<br>

<p align="center">Enter Amount to debit:</p>

<input id="amount" type="number" required>

<br>

<p align="center"><button id="submit">Sumbit</button></p>

</div>

</body>

<script src="app.js"></script>

</html>

**style.css**

div{

padding: 40px;

background-color: white;

margin: 0;

position: absolute;

top: 50%;

left: 50%;

transform: translate(-50%, -50%);

}

input{

font-family: Georgia, 'Times New Roman', Times, serif;

font-size: 30px;

margin: 20px;

}

body{

background-color: coral;

font-family: Georgia, 'Times New Roman', Times, serif;

font-size: 30px;

}

**app.js**

$(document).ready(function() {

$('#submit').click(function(){

var account = $('#account').val();

var amount = $('#amount').val();

var settings = {

"url": "http://localhost:4000/debit",

"method": "POST",

"timeout": 0,

"headers": {

"Content-Type": "application/json"

},

"data": JSON.stringify({"account":account,"amount":amount}),

};

$.ajax(settings).done(function (response) {

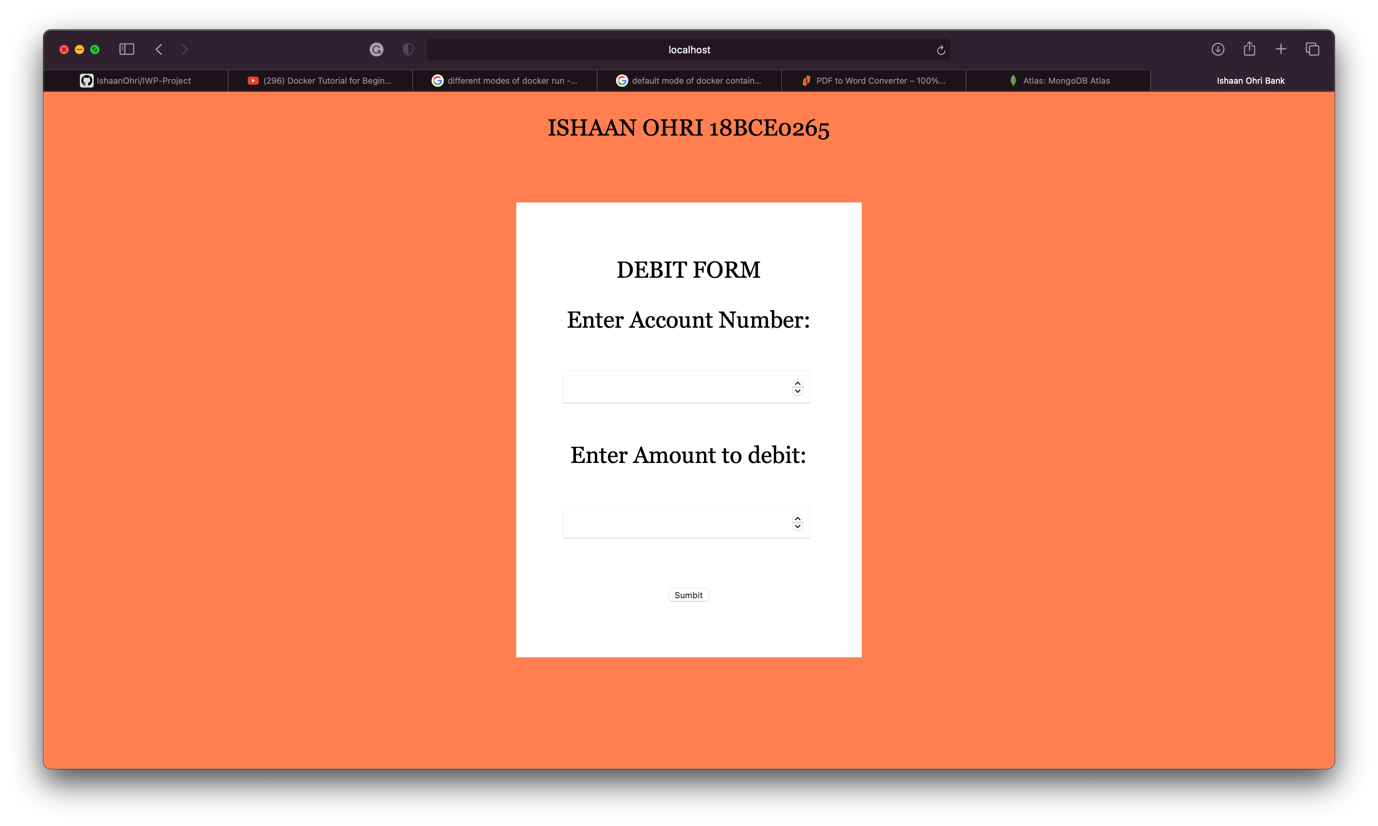
alert(response.message)

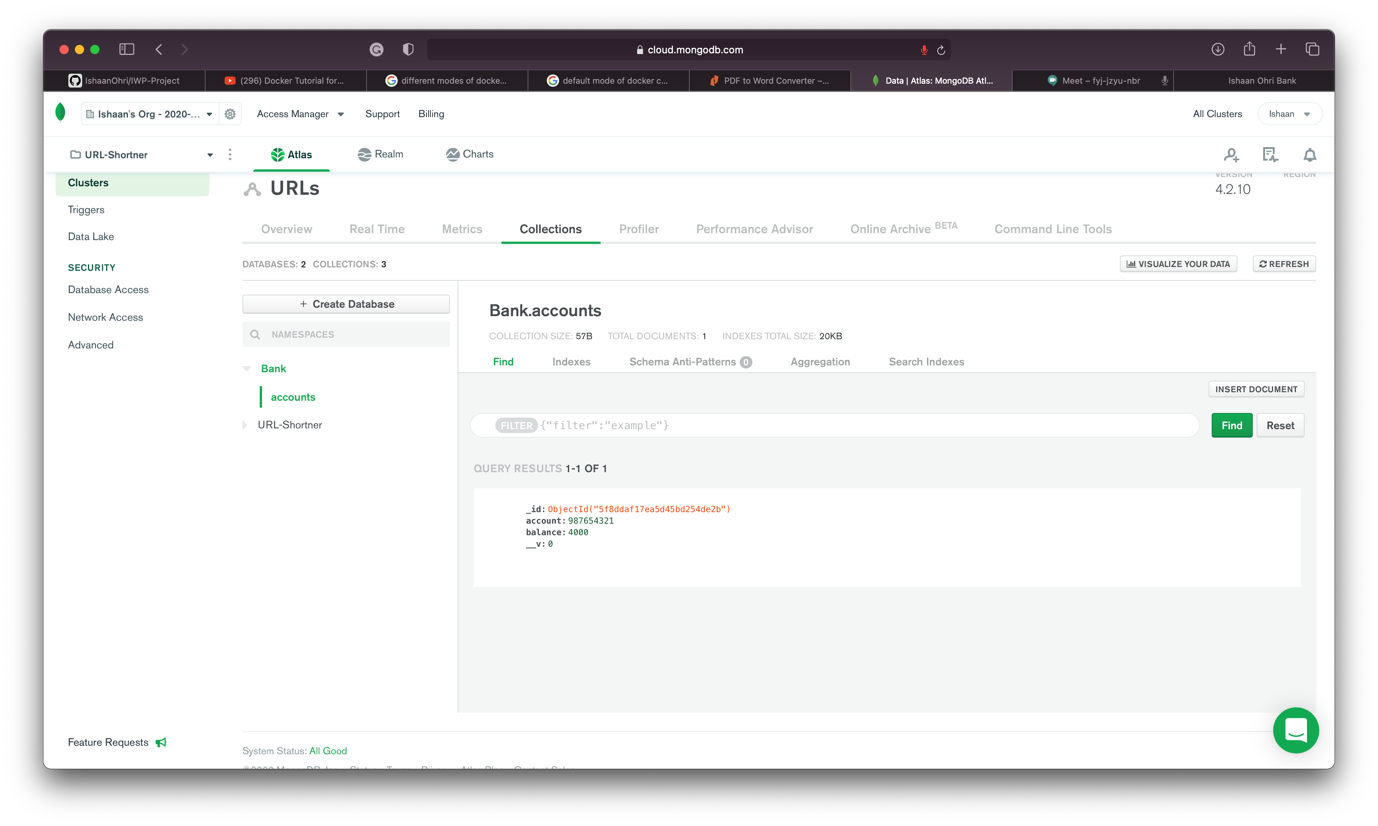
});

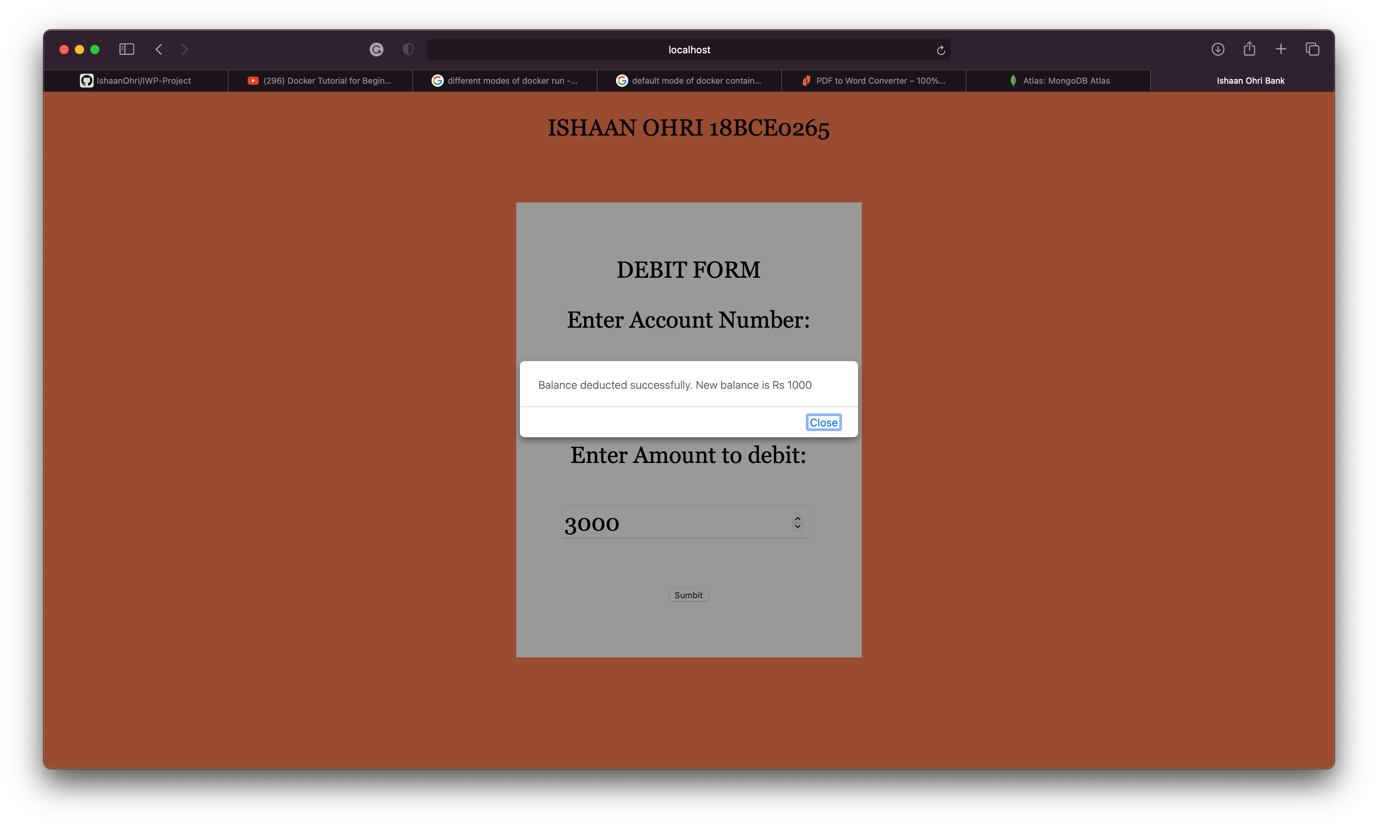
})

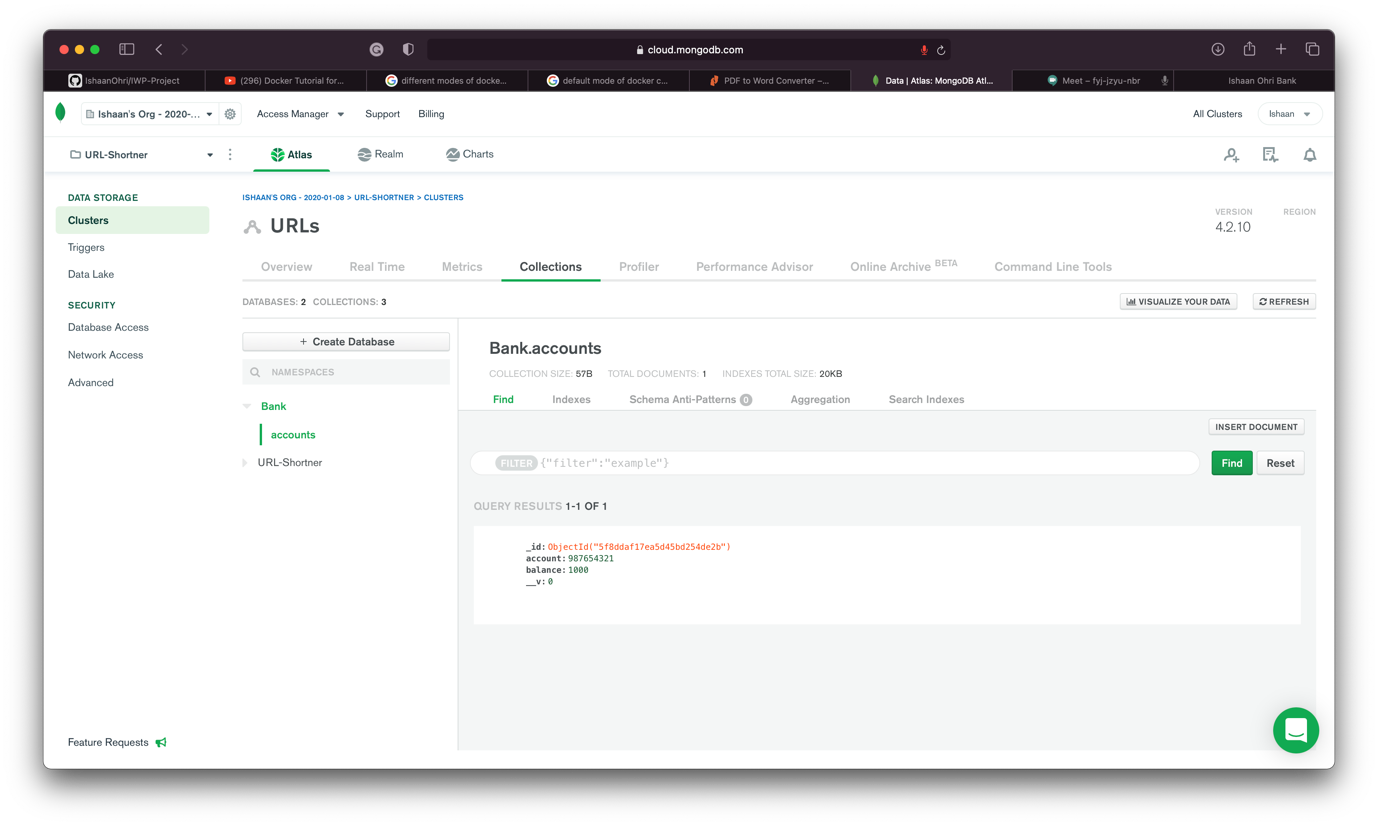
})

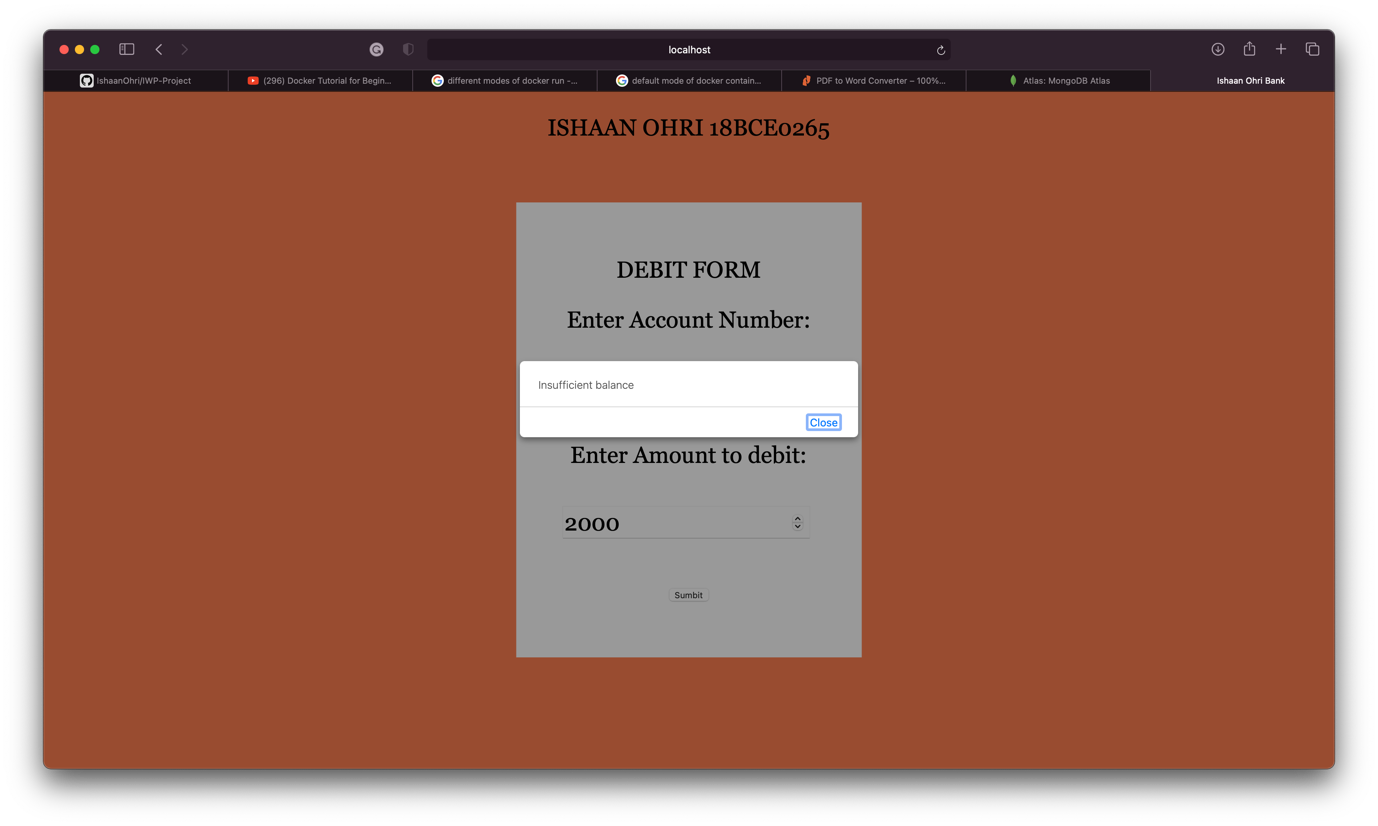
**Output:**

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