**COURSE PROJECT REPORT**

**TY: 2021-22 semester I**

**Subject:** Web Development

**Subject code:** ET3273

Prepared by:

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**Project Title: Walmart Web Scrapper App**

**Proposed system:**

* Block diagram

Single User Authentication

| SideBar | Update | Add new Product | Search Product | Walmart | User |
| --- | --- | --- | --- | --- | --- |

| Navigation Bar |
| --- |

* Description: Web scraping is the process of collecting structured web data in an automated fashion. It’s also called web data extraction. Some of the main use cases of web scraping include price monitoring, price intelligence, news monitoring, lead generation, and market research among many others. In general, web data extraction is used by people and businesses who want to make use of the vast amount of publicly available web data to make smarter decisions.

Things we can do: 1. Allow choosing any product

2. Allow the shopkeeper or show administrator to maintain details of a product in the show

3. Administrators can also update, change or get details of the product and maintain it in their own databases.

4. The administrator can change their password and also can give access to new members by creating their accounts.

**Software implementation:**

* Software Required:
* Visual Studio Code
* MongoDB
* NodeJS
* Git Bash
* Tools Required:
* Bootstrap
* Express.js
* Node.js
* Flowchart

| Single User Autentication |
| --- |

| * SideBar  | 1. DashBoard  | 1. Total Products | | --- |  | 2. In Stock - View Details | | --- |  | 3. Out of Stock -View Details | | --- |  | 4. Prices Changed -View Details | | --- |  | 5. Back in Stock - View details | | --- |  | 6. Product Update Information | | --- | | | --- | --- | --- | --- | --- | --- | --- |  | 1. Update  | Add New product 1. Fetch data | | --- | | | --- | --- |  | 1. Add New Product | | --- |  | 1. Search Product | | --- |  | 1. Walmart  | 1. In Stock | | --- |  | 1. Out of Stock | | --- |  | 1. Price changed | | --- |  | 1. Back in Stock | | --- | | | --- | --- | --- | --- | --- |  | 1. User  | 1. Add a new user | | --- |  | 2. View all user | | --- | | | --- | --- | --- | |
| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |

| * NavigationBar  | 1. Change Password | | --- |  | 1. LogOut | | --- | |
| --- | --- | --- |

* Program with an appropriate comment
* models

//posting user data to db

const mongoose = require('mongoose');

const passportLocalMongoose = require('passport-local-mongoose');

let userScheme = new mongoose.Schema({

name : String,

email : String,

password : {

type : String,

select : false

},

resetPasswordToken : String,

resetPasswordExpires : Date

});

userScheme.plugin(passportLocalMongoose, {usernameField : 'email'});

module.exports = mongoose.model('User', userScheme);

* routes

user.js

const express = require('express');

const router = express.Router();

const passport = require('passport');

const crypto = require('crypto');

const async = require('async');

const nodemailer = require('nodemailer');

//Requiring user model

const User = require('../models/usermodel');

// Checks if user is authenticated

function isAuthenticatedUser(req, res, next) {

if(req.isAuthenticated()) {

return next();

}

req.flash('error\_msg', 'Please Login first to access this page.')

res.redirect('/login');

}

//Get routes

router.get('/login', (req,res)=> {

res.render('./users/login');

});

router.get('/signup', (req,res)=> {

res.render('./users/signup');

});

router.get('/dashboard', isAuthenticatedUser,(req,res)=> {

res.render('./users/dashboard');

});

router.get('/logout', isAuthenticatedUser,(req, res)=> {

req.logOut();

req.flash('success\_msg', 'You have been logged out.');

res.redirect('/login');

});

router.get('/forgot', (req, res)=> {

res.render('./users/forgot');

});

//reset password

router.get('/reset/:token', (req, res)=> {

User.findOne({resetPasswordToken: req.params.token, resetPasswordExpires : {$gt : Date.now() } })

.then(user => {

if(!user) {

req.flash('error\_msg', 'Password reset token in invalid or has been expired.');

res.redirect('/forgot');

}

res.render('./users/newpassword', {token : req.params.token});

})

.catch(err => {

req.flash('error\_msg', 'ERROR: '+err);

res.redirect('/forgot');

});

});

//if user want to change password from inside

router.get('/password/change', isAuthenticatedUser, (req, res)=> {

res.render('changepassword');

});

//POST routes

router.post('/login', passport.authenticate('local', {

successRedirect : '/dashboard',

failureRedirect : '/login',

failureFlash: 'Invalid email or password. Try Again!!!'

}));

router.post('/signup', (req, res)=> {

let {name, email, password} = req.body;

let userData = {

name : name,

email :email

};

User.register(userData, password, (err, user)=> {

if(err) {

req.flash('error\_msg', 'ERROR: '+err);

res.redirect('/signup');

}

req.flash('success\_msg', 'Account created successfully');

res.redirect('/login');

});

});

router.post('/password/change', (req, res)=> {

if(req.body.password !== req.body.confirmpassword) {

req.flash('error\_msg', "Password don't match. Type again!");

return res.redirect('/password/change');

}

User.findOne({email : req.user.email})

.then(user => {

user.setPassword(req.body.password, err=>{

user.save()

.then(user => {

req.flash('success\_msg', 'Password changed successfully.');

res.redirect('/dashboard');

})

.catch(err => {

req.flash('error\_msg', 'ERROR: '+err);

res.redirect('/password/change');

});

});

});

});

// Routes to handle forgot password

router.post('/forgot', (req, res, next)=> {

let recoveryPassword = '';

async.waterfall([

(done) => {

crypto.randomBytes(20, (err , buf) => {

let token = buf.toString('hex');

done(err, token);

});

},

(token, done) => {

User.findOne({email : req.body.email})

.then(user => {

if(!user) {

req.flash('error\_msg', 'User does not exist with this email.');

return res.redirect('/forgot');

}

user.resetPasswordToken = token;

user.resetPasswordExpires = Date.now() + 1800000; // 1/2 hours

user.save(err => {

done(err, token, user);

});

})

.catch(err => {

req.flash('error\_msg', 'ERROR: '+err);

res.redirect('/forgot');

})

},

(token, user) => {

let smtpTransport = nodemailer.createTransport({

service: 'Gmail',

auth: {

user : process.env.GMAIL\_EMAIL,

pass: process.env.GMAIL\_PASSWORD

}

});

let mailOptions = {

to: user.email,

from : 'Prashant Raj praaj993@gmail.com',

subject : 'Recovery Email from Auth Project',

text : 'Please click the following link to recover your passoword: \n\n'+

'http://'+ req.headers.host +'/reset/'+token+'\n\n'+

'If you did not request this, please ignore this email.'

};

smtpTransport.sendMail(mailOptions, err=> {

req.flash('success\_msg', 'Email send with further instructions. Please check that.');

res.redirect('/forgot');

});

}

], err => {

if(err) res.redirect('/forgot');

});

});

router.post('/reset/:token', (req, res)=>{

async.waterfall([ //runs array of function 1 afther another asyncly

(done) => {

User.findOne({resetPasswordToken: req.params.token, resetPasswordExpires : {$gt : Date.now() } })

.then(user => {

if(!user) {

req.flash('error\_msg', 'Password reset token in invalid or has been expired.');

res.redirect('/forgot');

}

if(req.body.password !== req.body.confirmpassword) {

req.flash('error\_msg', "Password don't match.");

return res.redirect('/forgot');

}

user.setPassword(req.body.password, err => {

user.resetPasswordToken = undefined;

user.resetPasswordExpires = undefined;

user.save(err => {

req.logIn(user, err => {

done(err, user);

})

});

});

})

.catch(err => {

req.flash('error\_msg', 'ERROR: '+err);

res.redirect('/forgot');

});

},

(user) => {

let smtpTransport = nodemailer.createTransport({ //smtp: simple mail transfer protocol

service : 'Gmail',

auth:{

user : process.env.GMAIL\_EMAIL,

pass : process.env.GMAIL\_PASSWORD

}

});

let mailOptions = {

to : user.email,

from : 'Prashant Raj praaj993@gmail.com',

subject : 'Your password is changed',

text: 'Hello, '+user.name+'\n\n'+

'This is the confirmation that the password for your account '+ user.email+' has been changed.'

};

smtpTransport.sendMail(mailOptions, err=>{

req.flash('success\_msg', 'Your password has been changed successfully.');

res.redirect('/login');

});

}

], err => {

res.redirect('/login');

});

});

module.exports = router;

* views

1. Admin
2. partials

* views

1. Admin
2. backinstock.ejs

<%- include('../partials/header') -%>

<div class="col-9">

<div class="container p-3 w-100">

<h1 class="mt-5 mb-4">Back In Stock Products</h1>

<%- include('../partials/messages') -%>

<div class="container">

<table class="table table-bordered" id="dataTable" width="100%" cellspacing="0">

<thead>

<tr>

<th>SKU</th>

<th>Name</th>

<th>Price</th>

<th>Stock</th>

<th>Actions</th>

</tr>

</thead>

<tfoot>

<tr>

<th>SKU</th>

<th>Name</th>

<th>Price</th>

<th>Stock</th>

<th>Actions</th>

</tr>

</tfoot>

<tbody>

<% products.forEach((pro)=> { %>

<tr>

<td><%= pro.sku %></td>

<td><%= pro.title %></td>

<td><%= pro.newprice %></td>

<td><%= pro.newstock %></td>

<td>

<a target="black" class="btn btn-primary p-2" href="<%= pro.url %>"><i class="fas fa-eye"></i></a>

<form style="display: inline;" action="/delete/product/<%= pro.id %>?\_method=DELETE" method="POST">

<input type="hidden" name="\_method" value="DELETE">

<button style="cursor: pointer;" type="submit" class="btn btn-danger p-2"><i class="fas fa-trash"></i></button>

</form>

</td>

</tr>

<% }); %>

</tbody>

</table>

</div>

</div>

</div>

</div>

<%- include('../partials/footer') -%>

1. dashboard.ejs

<%- include('../partials/header') -%>

<div class="col-9">

<div class="container p-3">

<h1 class="my-4">Dashboard</h1>

<%- include('../partials/messages') -%>

<% let total = instock = outofstock = pricechanged = backinstock = updated = notupdated = 0 %>

<% products.forEach((product) => { %>

<% total++; %>

<% if(product.newstock === 'In stock') { %>

<% instock++; %>

<% } %>

<% if(product.newstock === 'Out of stock') { %>

<% outofstock++; %>

<% } %>

<% if(product.newprice !== product.oldprice) { %>

<% pricechanged++; %>

<% } %>

<% if(product.oldstock === 'Out of stock' && product.newstock === 'In stock') { %>

<% backinstock++; %>

<% } %>

<% if(product.updatestatus === 'Updated') { %>

<% updated++; %>

<% } %>

<% if(product.updatestatus === 'Not Updated') { %>

<% notupdated++; %>

<% } %>

<% }); %>

<div class="row">

<div class="col-xl-12 col-sm-12 mb-3">

<div class="card text-white bg-primary o-hidden h-100">

<div class="card-body">

<div class="text-center card-font-size">Total Products<br> <b><%= total %></b>

</div>

</div>

</div>

</div>

</div>

<!-- CARD START HERE -->

<div class="row">

<div class="col-xl-3 col-sm-6 mb-3">

<div class="card text-white bg-success o-hidden h-100">

<div class="card-body">

<div class="text-center card-font-size">In Stock<br> <b><%= instock %></b></div>

</div>

<a class="card-footer text-white clearfix small z-1" href="/products/instock">

<span class="float-left">View Details</span>

<span class="float-right">

<i class="fas fa-angle-right"></i>

</span>

</a>

</div>

</div>

<div class="col-xl-3 col-sm-6 mb-3">

<div class="card text-white bg-danger o-hidden h-100">

<div class="card-body">

<div class="text-center card-font-size">Out of Stock<br> <b><%= outofstock %></b></div>

</div>

<a class="card-footer text-white clearfix small z-1" href="/products/outofstock">

<span class="float-left">View Details</span>

<span class="float-right">

<i class="fas fa-angle-right"></i>

</span>

</a>

</div>

</div>

<div class="col-xl-3 col-sm-6 mb-3">

<div class="card text-white bg-info o-hidden h-100">

<div class="card-body">

<div class="text-center card-font-size">Price Changed<br> <b><%= pricechanged %></b></div>

</div>

<a class="card-footer text-white clearfix small z-1" href="/products/pricechanged">

<span class="float-left">View Details</span>

<span class="float-right">

<i class="fas fa-angle-right"></i>

</span>

</a>

</div>

</div>

<div class="col-xl-3 col-sm-6 mb-3">

<div class="card text-white bg-warning o-hidden h-100">

<div class="card-body">

<div class="text-center card-font-size">Back In Stock<br> <b><%= backinstock %></b></div>

</div>

<a class="card-footer text-white clearfix small z-1" href="/products/backinstock">

<span class="float-left">View Details</span>

<span class="float-right">

<i class="fas fa-angle-right"></i>

</span>

</a>

</div>

</div>

</div>

<!-- UPDATE CARD START HERE -->

<h1 class="my-5">Products Update Information</h1>

<div class="row">

<div class="col-xl-6 col-sm-6 mb-3">

<div class="card text-white bg-success o-hidden h-100">

<div class="card-body">

<div class="text-center card-font-size">Updated Products<br> <b><%= updated%></b></div>

</div>

<a class="card-footer text-white clearfix small z-1" href="/products/updated">

<span class="float-left">View Details</span>

<span class="float-right">

<i class="fas fa-angle-right"></i>

</span>

</a>

</div>

</div>

<div class="col-xl-6 col-sm-6 mb-3">

<div class="card text-white bg-danger o-hidden h-100">

<div class="card-body">

<div class="text-center card-font-size">Not Updated Products<br> <b><%= notupdated %></b></div>

</div>

<a class="card-footer text-white clearfix small z-1" href="/products/notupdated">

<span class="float-left">View Details</span>

<span class="float-right">

<i class="fas fa-angle-right"></i>

</span>

</a>

</div>

</div>

</div>

</div>

</div>

</div>

<%- include('../partials/footer') -%>

1. index.ejs

<%- include('../partials/header') -%>

<div class="text-center">

<a id="btnHome" class="btn btn-danger" href="/login">Login to App</a>

</div>

<%- include('../partials/footer') -%>

1. instock.ejs

<%- include('../partials/header') -%>

<div class="col-9">

<div class="container p-3 w-100">

<h1 class="mt-5 mb-4">In Stock Products</h1>

<%- include('../partials/messages') -%>

<div class="container">

<table class="table table-bordered" id="dataTable" width="100%" cellspacing="0">

<thead>

<tr>

<th>SKU</th>

<th>Name</th>

<th>Price</th>

<th>Stock</th>

<th>Actions</th>

</tr>

</thead>

<tfoot>

<tr>

<th>SKU</th>

<th>Name</th>

<th>Price</th>

<th>Stock</th>

<th>Actions</th>

</tr>

</tfoot>

<tbody>

<% products.forEach((pro)=> { %>

<tr>

<td><%= pro.sku %></td>

<td><%= pro.title %></td>

<td><%= pro.newprice %></td>

<td><%= pro.newstock %></td>

<td>

<a target="black" class="btn btn-primary p-2" href="<%= pro.url %>"><i class="fas fa-eye"></i></a>

<form style="display: inline;" action="/delete/product/<%= pro.id %>?\_method=DELETE" method="POST">

<input type="hidden" name="\_method" value="DELETE">

<button style="cursor: pointer;" type="submit" class="btn btn-danger p-2"><i class="fas fa-trash"></i></button>

</form>

</td>

</tr>

<% }); %>

</tbody>

</table>

</div>

</div>

</div>

</div>

<%- include('../partials/footer') -%>

1. newproduct.ejs

<%- include('../partials/header') -%>

<div class="col-9">

<div class="container p-3 w-100">

<h1 class="mt-5 mb-4">Add New Product</h1>

<%- include('../partials/messages') -%>

<form class="mt-2" id="newpostform" action="/product/new" method="GET">

<div class="row mt-5 justify-content-center d-flex">

<div class="col-12">

<input type="text" class="form-control" name="search" placeholder="Enter Product URL" required>

</div>

</div>

<div class="justify-content-center d-flex mt-4">

<button id="fetchBtn" class="btn btn-danger w-25 py-2">Fetch Data</button>

</div>

</form>

<form class="mt-2" action="/product/new" method="POST">

<div class="row mt-5 justify-content-center d-flex">

<div class="col-9 mt-4">

<input type="text" class="form-control" name="url" placeholder="Product URL" value="<%=productData.productUrl%>"

readonly required>

</div>

<div class="col-9 mt-4">

<input type="text" class="form-control" name="title" placeholder="Product Title" value="<%=productData.title%>"

readonly required>

</div>

<div class="col-9 mt-4">

<input type="text" class="form-control" name="price" placeholder="Product Price" value="<%=productData.price%>"

readonly required>

</div>

<div class="col-9 mt-4">

<input type="text" class="form-control" name="stock" placeholder="Product Stock" value="<%=productData.stock%>"

readonly required>

</div>

<div class="col-9 mt-4">

<input type="text" class="form-control" name="sku" placeholder="Enter Product SKU" required>

</div>

</div>

<div class="justify-content-center d-flex mt-4">

<button id="publishBtn" class="btn btn-danger w-25 py-2">Save Data</button>

</div>

</form>

</div>

</div>

</div>

<%- include('../partials/footer') -%>

1. notfound.ejs

<%- include('../partials/header') -%>

<div class="container w-50 mt-5">

<h1 class="text-danger">404. This page does not exist.</h1>

<a href="/login">Go to Login.</a>

</div>

<%- include('../partials/footer') -%>

1. notupdatedproducts.ejs

<%- include('../partials/header') -%>

<div class="col-9">

<div class="container p-3 w-100">

<h1 class="mt-5 mb-4">Not Updated Products</h1>

<%- include('../partials/messages') -%>

<div class="container">

<table class="table table-bordered" id="dataTable" width="100%" cellspacing="0">

<thead>

<tr>

<th>SKU</th>

<th>Name</th>

<th>Price</th>

<th>Status</th>

<th>Actions</th>

</tr>

</thead>

<tfoot>

<tr>

<th>SKU</th>

<th>Name</th>

<th>Price</th>

<th>Status</th>

<th>Actions</th>

</tr>

</tfoot>

<tbody>

<% products.forEach((pro)=> { %>

<tr>

<td><%= pro.sku %></td>

<td><%= pro.title %></td>

<td><%= pro.newprice %></td>

<td><%= pro.updatestatus %></td>

<td>

<a target="black" class="btn btn-primary p-2" href="<%= pro.url %>"><i class="fas fa-eye"></i></a>

<form style="display: inline;" action="/delete/product/<%= pro.id %>?\_method=DELETE" method="POST">

<input type="hidden" name="\_method" value="DELETE">

<button style="cursor: pointer;" type="submit" class="btn btn-danger p-2"><i class="fas fa-trash"></i></button>

</form>

</td>

</tr>

<% }); %>

</tbody>

</table>

</div>

</div>

</div>

</div>

<%- include('../partials/footer') -%>

1. outofstock.ejs

<%- include('../partials/header') -%>

<div class="col-9">

<div class="container p-3 w-100">

<h1 class="mt-5 mb-4">Out of Stock Products</h1>

<%- include('../partials/messages') -%>

<div class="container">

<table class="table table-bordered" id="dataTable" width="100%" cellspacing="0">

<thead>

<tr>

<th>SKU</th>

<th>Name</th>

<th>Price</th>

<th>Stock</th>

<th>Actions</th>

</tr>

</thead>

<tfoot>

<tr>

<th>SKU</th>

<th>Name</th>

<th>Price</th>

<th>Stock</th>

<th>Actions</th>

</tr>

</tfoot>

<tbody>

<% products.forEach((pro)=> { %>

<% if(pro.oldstock.includes('In stock')) { %>

<tr style="background-color: red; color: white;">

<td><%= pro.sku %></td>

<td><%= pro.title %></td>

<td><%= pro.newprice %></td>

<td><%= pro.newstock %></td>

<td>

<a target="black" class="btn btn-primary p-2" href="<%= pro.url %>"><i class="fas fa-eye"></i></a>

<form style="display: inline;" action="/delete/product/<%= pro.id %>?\_method=DELETE" method="POST">

<input type="hidden" name="\_method" value="DELETE">

<button style="cursor: pointer;" type="submit" class="btn btn-alert p-2"><i class="fas fa-trash"></i></button>

</form>

</td>

</tr>

<% } else {%>

<tr>

<td><%= pro.sku %></td>

<td><%= pro.title %></td>

<td><%= pro.newprice %></td>

<td><%= pro.newstock %></td>

<td>

<a target="black" class="btn btn-primary p-2" href="<%= pro.url %>"><i class="fas fa-eye"></i></a>

<form style="display: inline;" action="/delete/product/<%= pro.id %>?\_method=DELETE" method="POST">

<input type="hidden" name="\_method" value="DELETE">

<button style="cursor: pointer;" type="submit" class="btn btn-danger p-2"><i class="fas fa-trash"></i></button>

</form>

</td>

</tr>

<% } %>

<% }); %>

</tbody>

</table>

</div>

</div>

</div>

</div>

<%- include('../partials/footer') -%>

1. pricechanged.ejs

<%- include('../partials/header') -%>

<div class="col-9">

<div class="container p-3 w-100">

<h1 class="mt-5 mb-4">Price Changed Products</h1>

<%- include('../partials/messages') -%>

<div class="container">

<table class="table table-bordered" id="dataTable" width="100%" cellspacing="0">

<thead>

<tr>

<th>SKU</th>

<th>Name</th>

<th>Old Price</th>

<th>New Price</th>

<th>Actions</th>

</tr>

</thead>

<tfoot>

<tr>

<th>SKU</th>

<th>Name</th>

<th>Old Price</th>

<th>New Price</th>

<th>Actions</th>

</tr>

</tfoot>

<tbody>

<% products.forEach((pro)=> { %>

<% if(pro.newprice !== pro.oldprice) {%>

<tr>

<td><%= pro.sku %></td>

<td><%= pro.title %></td>

<td><%= pro.oldprice %></td>

<td><%= pro.newprice %></td>

<td>

<a target="black" class="btn btn-primary p-2" href="<%= pro.url %>"><i

class="fas fa-eye"></i></a>

<form style="display: inline;" action="/delete/product/<%= pro.id %>?\_method=DELETE"

method="POST">

<input type="hidden" name="\_method" value="DELETE">

<button style="cursor: pointer;" type="submit" class="btn btn-danger p-2"><i

class="fas fa-trash"></i></button>

</form>

</td>

</tr>

<% } %>

<% }); %>

</tbody>

</table>

</div>

</div>

</div>

</div>

<%- include('../partials/footer') -%>

1. search.ejs

<%- include('../partials/header') -%>

<div class="col-9">

<div class="container p-3 w-100">

<h1 class="mt-5 mb-4">Search Product</h1>

<%- include('../partials/messages') -%>

<form class="mt-2" id="newpostform" action="/product/search" method="GET">

<div class="row mt-5 justify-content-center d-flex">

<div class="col-6">

<input type="text" class="form-control" name="sku" placeholder="Enter Product SKU" required>

</div>

</div>

<div class="justify-content-center d-flex mt-4">

<button id="fetchBtn" class="btn btn-danger w-25 py-2">Search Product</button>

</div>

</form>

<div class=" ml-5 text-left mt-5">

<span>Title: </span> <span><%= productData.title%></span><br>

<span>Price: </span> <span><%= productData.newprice%></span><br>

<span>Stock: </span> <span><%= productData.newstock%></span><br>

<span>SKU: </span> <span><%= productData.sku%></span>

</div>

</div>

</div>

</div>

<%- include('../partials/footer') -%>

1. update.ejs

<%- include('../partials/header') -%>

<div class="col-9">

<div class="container p-3 w-100">

<h1 class="mt-5 mb-4">Update Products</h1>

<%- include('../partials/messages') -%>

<% if(message != '' && message.includes("update started")) { %>

<div class="alert alert-success" role="alert">

<b>Updated Started Successfully. Please read the following instructions:</b>

<ul>

<li>Make sure that you have a fast and active internet connection.</li>

<li>To see update information go to Dashboard.</li>

</ul>

</div>

<%}%>

<div class="mt-3 justify-content-center d-flex">

<form class="mt-2" id="updateForm" action="/update" method="POST">

<input id="updatebtn" class="btn btn-danger px-5 py-2 mt-5" type="submit" value="Update">

</form>

</div>

</div>

</div>

<%- include('../partials/footer') -%>

1. updatedproducts.ejs

<%- include('../partials/header') -%>

<div class="col-9">

<div class="container p-3 w-100">

<h1 class="mt-5 mb-4">Updated Products</h1>

<%- include('../partials/messages') -%>

<div class="container">

<table class="table table-bordered" id="dataTable" width="100%" cellspacing="0">

<thead>

<tr>

<th>SKU</th>

<th>Name</th>

<th>Price</th>

<th>Status</th>

<th>Actions</th>

</tr>

</thead>

<tfoot>

<tr>

<th>SKU</th>

<th>Name</th>

<th>Price</th>

<th>Status</th>

<th>Actions</th>

</tr>

</tfoot>

<tbody>

<% products.forEach((pro)=> { %>

<tr>

<td><%= pro.sku %></td>

<td><%= pro.title %></td>

<td><%= pro.newprice %></td>

<td><%= pro.updatestatus %></td>

<td>

<a target="black" class="btn btn-primary p-2" href="<%= pro.url %>"><i class="fas fa-eye"></i></a>

<form style="display: inline;" action="/delete/product/<%= pro.id %>?\_method=DELETE" method="POST">

<input type="hidden" name="\_method" value="DELETE">

<button style="cursor: pointer;" type="submit" class="btn btn-danger p-2"><i class="fas fa-trash"></i></button>

</form>

</td>

</tr>

<% }); %>

</tbody>

</table>

</div>

</div>

</div>

</div>

<%- include('../partials/footer') -%>

1. partials
2. footer.ejs

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

<script src="https://kit.fontawesome.com/c8d42b430d.js"></script>

<script src="https://stackpath.bootstrapcdn.com/bootstrap/4.1.3/js/bootstrap.min.js"

integrity="sha384-ChfqqxuZUCnJSK3+MXmPNIyE6ZbWh2IMqE241rYiqJxyMiZ6OW/JmZQ5stwEULTy"

crossorigin="anonymous"></script>

</body>

</html>

1. header.ejs

<!DOCTYPE html>

<html>

<head>

<title>Walmart Scrapper App</title>

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

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

<link href="https://cdn.datatables.net/1.10.18/css/dataTables.bootstrap4.min.css" rel="stylesheet">

<!-- Bootstrap core JavaScript-->

<script src="https://ajax.googleapis.com/ajax/libs/jquery/3.3.1/jquery.min.js"></script>

<!-- Page level plugin JavaScript-->

<script src="https://cdn.datatables.net/1.10.18/js/jquery.dataTables.min.js"></script>

<script src="https://cdn.datatables.net/1.10.18/js/dataTables.bootstrap4.min.js"></script>

</head>

<body>

<nav class="py-1 navbar navbar-expand-lg navbar-light bg-danger">

<a class="navbar-brand text-white ml-4" href="/dashboard"><b>Walmart Scrapper App</b></a>

<button class="navbar-toggler" type="button" data-toggle="collapse" data-target="#navbarSupportedContent"

aria-controls="navbarSupportedContent" aria-expanded="false" aria-label="Toggle navigation">

<span class="navbar-toggler-icon"></span>

</button>

<div class="collapse navbar-collapse justify-content-end" id="navbarSupportedContent">

<div class="mr-5">

<ul class="navbar-nav mr-auto mr-0">

<% if(currentUser){ %>

<li class="nav-item">

<a class="nav-link text-white" href="#"><%= currentUser.name %></b></a>

</li>

<li class="nav-item">

<a class="nav-link text-white" href="/password/change">Change Password</a>

</li>

<li class="nav-item">

<a class="nav-link text-white" href="/logout">Logout</a>

</li>

<% } %>

</ul>

</div>

</div>

</nav>

<%if(currentUser) {%>

<div class="col-2">

<%- include('../partials/sidebar')-%>

</div>

<% } %>

1. messages.ejs

<% if(success\_msg && success\_msg != '') { %>

<div class="alert alert-success"><%= success\_msg %></div>

<% } else if(error\_msg && error\_msg != '') { %>

<div class="alert alert-danger"><%= error\_msg %></div>

<% } %>

<% if(error && error != '') { %>

<div class="alert alert-danger"><%= error %></div>

<% } %>

1. SideBar.ejs

<div class="wrapper">

<nav id="sidebar">

<ul class="list-unstyled components">

<li>

<a href="/dashboard"><i class="fas fa-tachometer-alt"></i>&nbsp;&nbsp;Dashboard</a>

</li>

<li>

<a href="/update"><i class="fas fa-sync-alt"></i>&nbsp;&nbsp;Update</a>

</li>

<li>

<a href="/product/new"><i class="fas fa-plus-circle"></i>&nbsp;&nbsp;Add New Product</a>

</li>

<li>

<a href="/product/search"><i class="fas fa-search"></i>&nbsp;&nbsp;Search Product</a>

</li>

<li>

<a href="#walmartSubmenu" data-toggle="collapse" aria-expanded="false" class="dropdown-toggle"><i

class="fab fa-wikipedia-w"></i>&nbsp;&nbsp;Walmart</a>

<ul class="collapse list-unstyled" id="walmartSubmenu">

<li>

<a href="/products/instock"><i class="fas fa-arrow-circle-up"></i>&nbsp;&nbsp;In Stock</a>

</li>

<li>

<a href="/products/outofstock"><i class="fas fa-arrow-circle-down"></i>&nbsp;&nbsp;Out of Stock</a>

</li>

<li>

<a href="/products/pricechanged"><i class="fas fa-dollar-sign"></i>&nbsp;&nbsp;Price Changed</a>

</li>

<li>

<a href="/products/backinstock"><i class="fas fa-backward"></i>&nbsp;&nbsp;Back In Stock</a>

</li>

</ul>

</li>

<li>

<a href="#userSubmenu" data-toggle="collapse" aria-expanded="false" class="dropdown-toggle"><i

class="fas fa-user"></i>&nbsp;&nbsp;Users</a>

<ul class="collapse list-unstyled" id="userSubmenu">

<li>

<a href="/signup"><i class="fas fa-plus-circle"></i>&nbsp;&nbsp;Add New User</a>

</li>

<li>

<a href="/users/all"><i class="fas fa-eye"></i>&nbsp;&nbsp;View Users</a>

</li>

</ul>

</li>

</ul>

</nav>

</div>

1. User
2. changepassword.ejs

<%- include('../partials/header') -%>

<h1 class="text-center mt-5 mb-3">Change Password</h1>

<div class="container w-25">

<%- include('../partials/messages') -%>

<form action="/password/change" method="POST">

<div class="form-group px-0">

<input type="password" name="password" class="form-control" placeholder="Password">

</div>

<div class="form-group px-0">

<input type="password" name="confirmpassword" class="form-control" placeholder="Confirm Password">

</div>

<button type="submit" class="btn btn-danger btn-block">Change Password</button>

</form>

</div>

</div>

<%- include('../partials/footer') -%>

1. dashboard.ejs

<%- include('../partials/header') -%>

<div class="container w-25 mt-2">

<%-include('../partials/messages')-%>

<h1 class="text-center">Dashboard</h1>

</div>

<%- include('../partials/footer') -%>

1. forget.ejs

<%- include('../partials/header') -%>

<h1 class="text-center mt-5 mb-3">Forgot Password</h1>

<div class="container w-25">

<%- include('../partials/messages') -%>

<form action="/forgot" method="POST">

<div class="form-group px-0">

<input type="email" name="email" class="form-control" placeholder="Enter Email Address">

</div>

<button type="submit" class="btn btn-danger btn-block">Send Email</button>

</form>

<a class="float-right" href="/login">Back to Login</a>

</div>

</div>

<%- include('../partials/footer') -%>

1. login.ejs

<%- include('../partials/header') -%>

<h1 class="text-center mt-5 mb-3">Login</h1>

<div class="container w-25">

<form action="/login" method="POST">

<%- include('../partials/messages') -%>

<div class="form-group px-0">

<input type="email" name="email" class="form-control" placeholder="Email Address">

</div>

<div class="form-group px-0">

<input type="password" name="password" class="form-control" placeholder="Password">

</div>

<a class="float-right mt-0 mb-3 text-danger" href="/forgot">Forgot Password?</a>

<button type="submit" class="btn btn-danger btn-block">Login</button>

</form>

</div>

</div>

<%- include('../partials/footer') -%>

1. newpassword.ejs

<%- include('../partials/header') -%>

<h1 class="text-center mt-5 mb-3">New Password</h1>

<div class="container w-25">

<%- include('../partials/messages') -%>

<form action="/reset/<%=token%>" method="POST">

<div class="form-group px-0">

<input type="password" name="password" class="form-control" placeholder="Password">

</div>

<div class="form-group px-0">

<input type="password" name="confirmpassword" class="form-control" placeholder="Confirm Password">

</div>

<button type="submit" class="btn btn-danger btn-block">Change Password</button>

</form>

</div>

</div>

<%- include('../partials/footer') -%>

1. signup.ejs

<%- include('../partials/header') -%>

<div class="col-9">

<div class="container p-3 w-50">

<h1 class="text-center mt-5 mb-3">Register</h1>

<%- include('../partials/messages') -%>

<form action="/signup" method="POST">

<div class="form-group px-0">

<input type="text" name="name" class="form-control" placeholder="Name">

</div>

<div class="form-group px-0">

<input type="email" name="email" class="form-control" placeholder="Email Address">

</div>

<div class="form-group px-0">

<input type="password" name="password" class="form-control" placeholder="Password">

</div>

<button type="submit" class="btn btn-danger btn-block">Register</button>

</form>

</div>

</div>

<%- include('../partials/footer') -%>

app.js

const express = require('express');

const app = express();

const path = require('path');

const bodyParser = require('body-parser');

const dotenv = require('dotenv');

const mongoose = require('mongoose');

const flash = require('connect-flash');

const session = require('express-session');

const passport = require('passport');

const LocalStrategy = require('passport-local').Strategy;

//Requiring user route

const userRoutes = require('./routes/users');

//Requiring user model

const User = require('./models/usermodel');

dotenv.config({path : './config.env'});

mongoose.connect(process.env.DATABASE\_LOCAL, {

useNewUrlParser : true,

useUnifiedTopology : true,

});

//middleware for session

app.use(session({

secret : 'Just a simple login/sign up application.',

resave : true,

saveUninitialized : true

}));

//Passport should be after session

app.use(passport.initialize());

app.use(passport.session());

passport.use(new LocalStrategy({usernameField : 'email'},User.authenticate()));

passport.serializeUser(User.serializeUser());

passport.deserializeUser(User.deserializeUser());

//middleware flash messages

app.use(flash());

//setting middlware globally

app.use((req,res, next)=>{

res.locals.success\_msg = req.flash('success\_msg');

res.locals.error\_msg = req.flash('error\_msg');

res.locals.error= req.flash('error');

res.locals.currentUser = req.user;

next();

});

app.use(bodyParser.urlencoded({extended:true}));

app.set('views', path.join(\_\_dirname, 'views'));

app.set('view engine', 'ejs');

app.use(express.static('Public'));

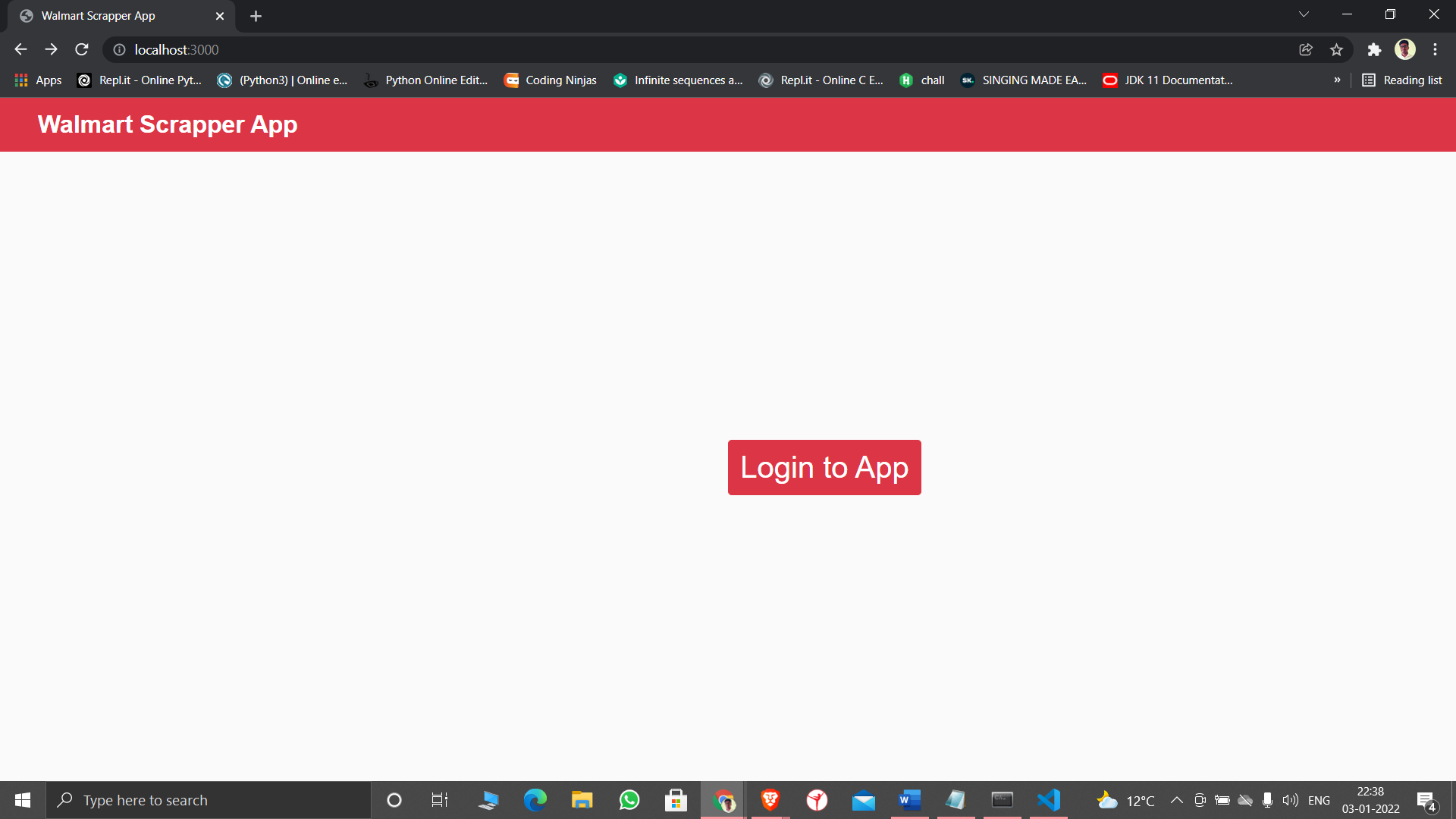
app.use(userRoutes);

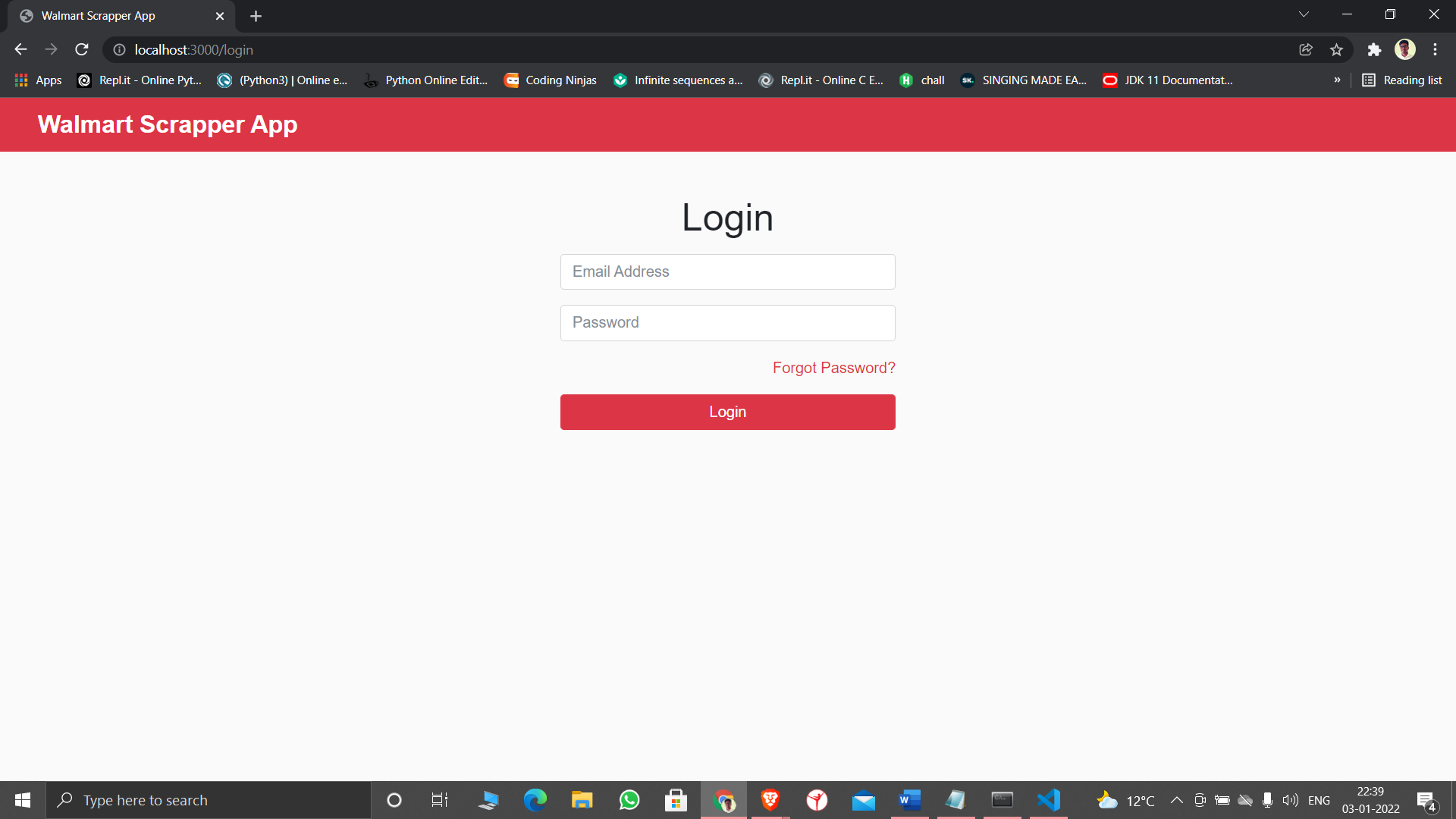
app.listen(process.env.PORT, ()=>{

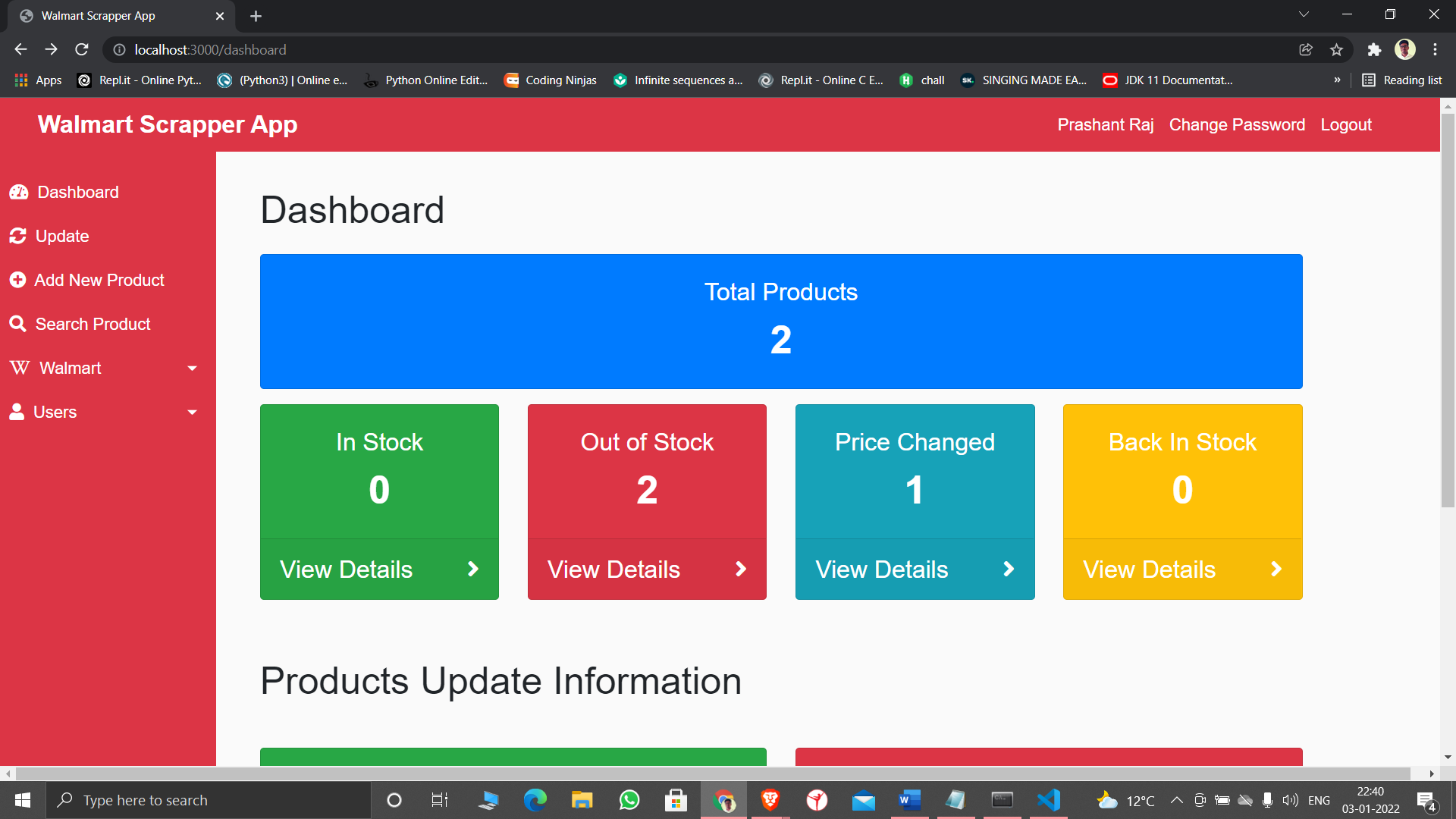
console.log('Server is started',process.env.PORT);

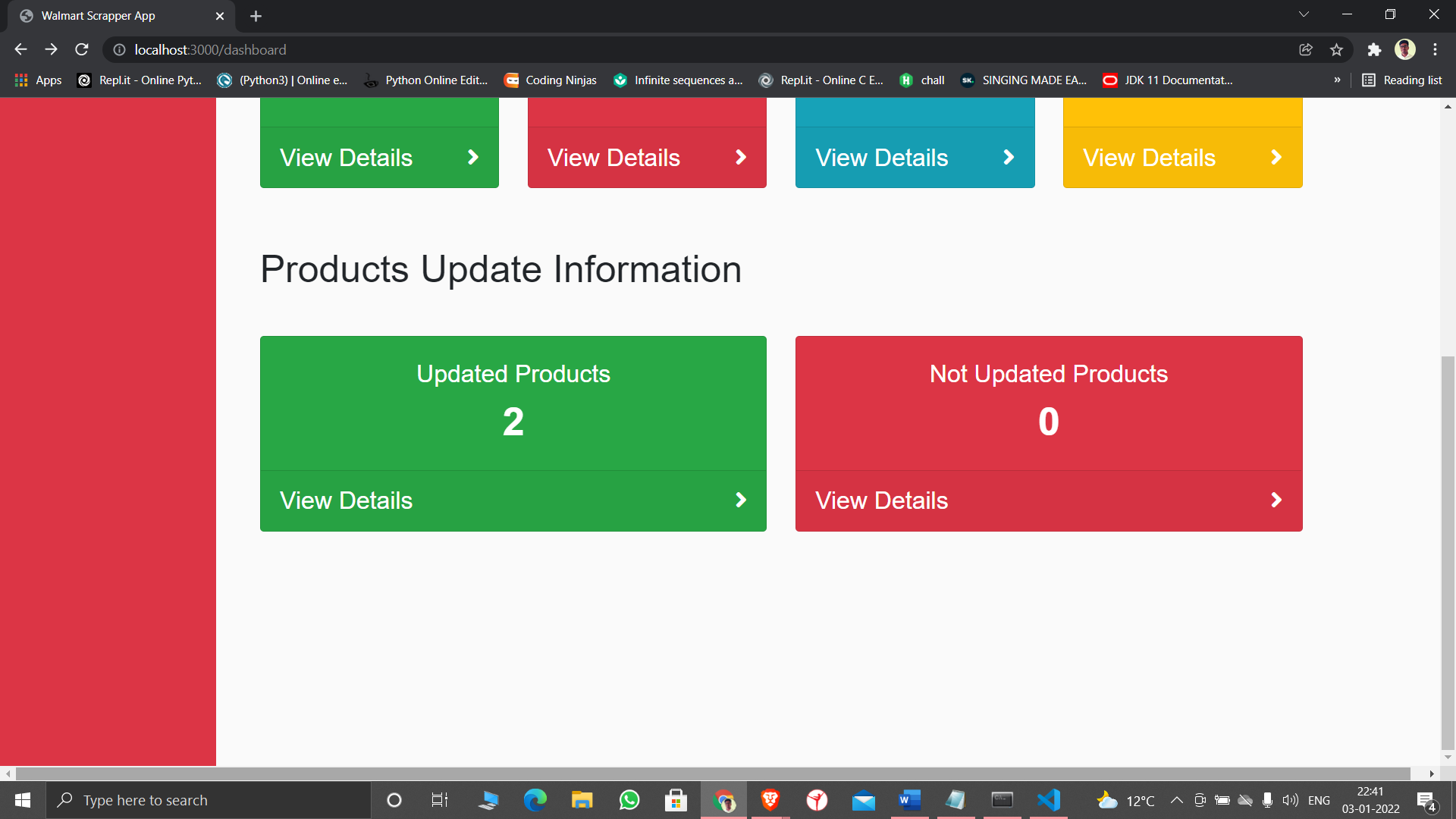
});

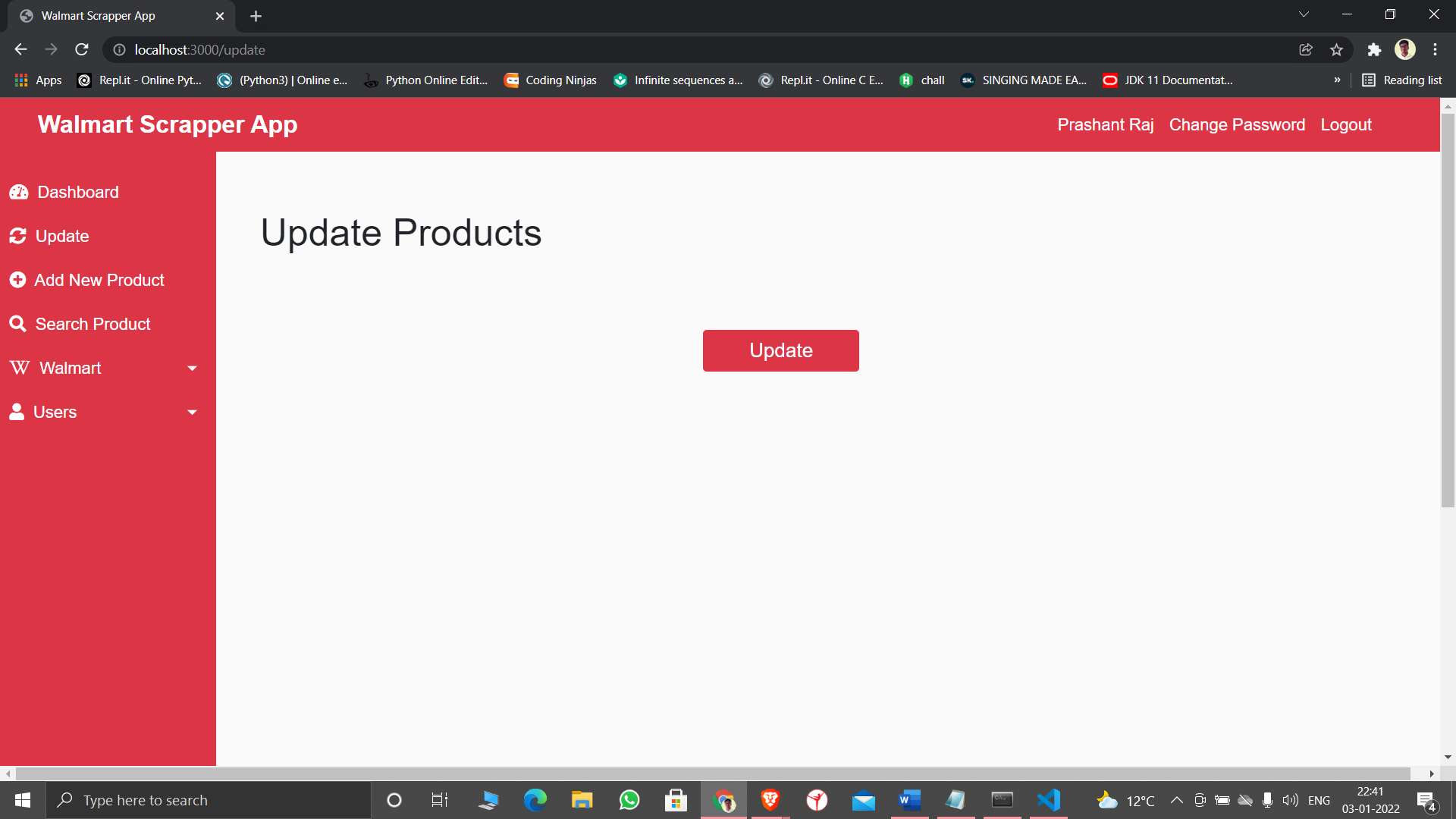
**Result:**

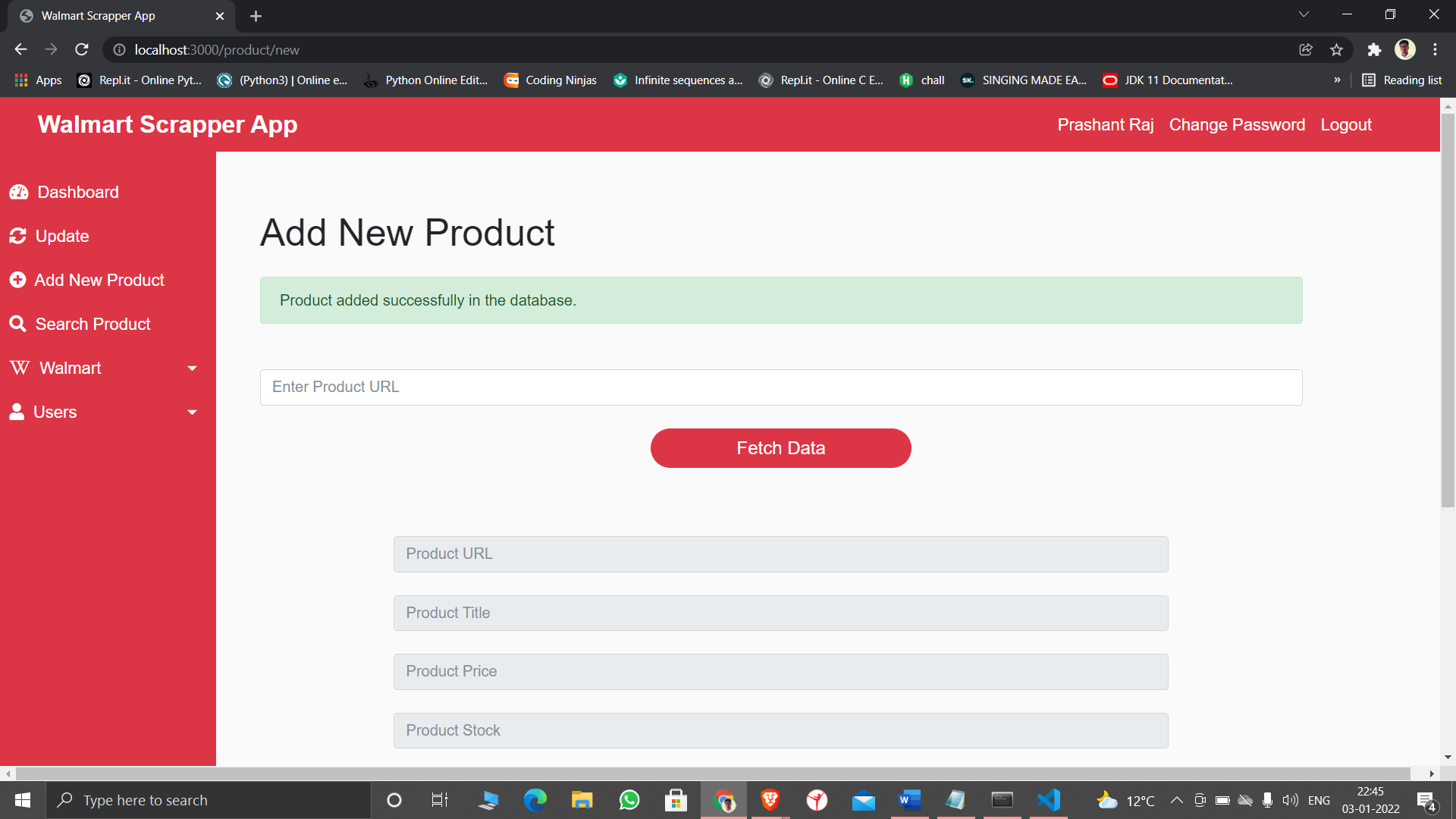
****

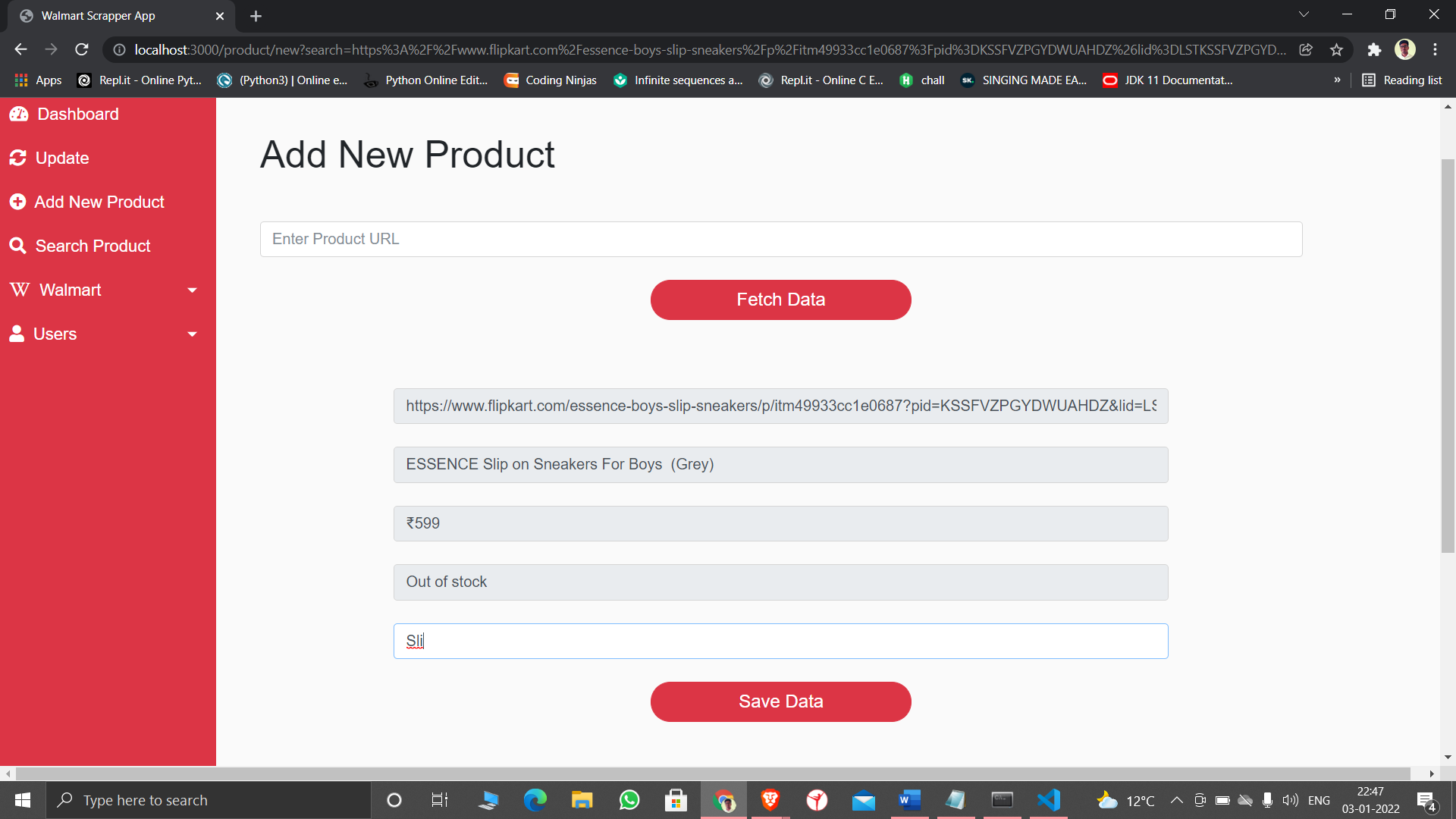
****

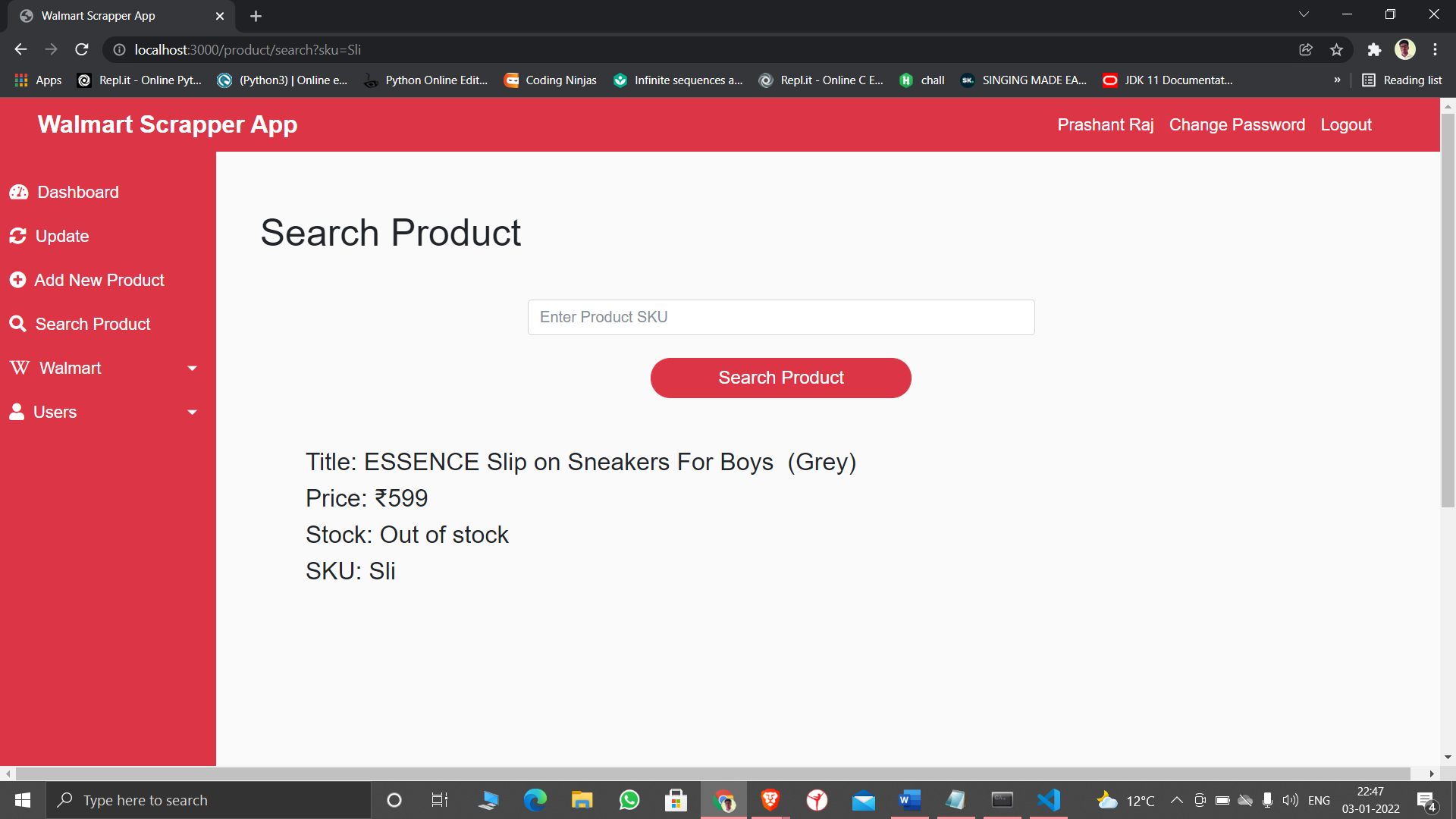
****

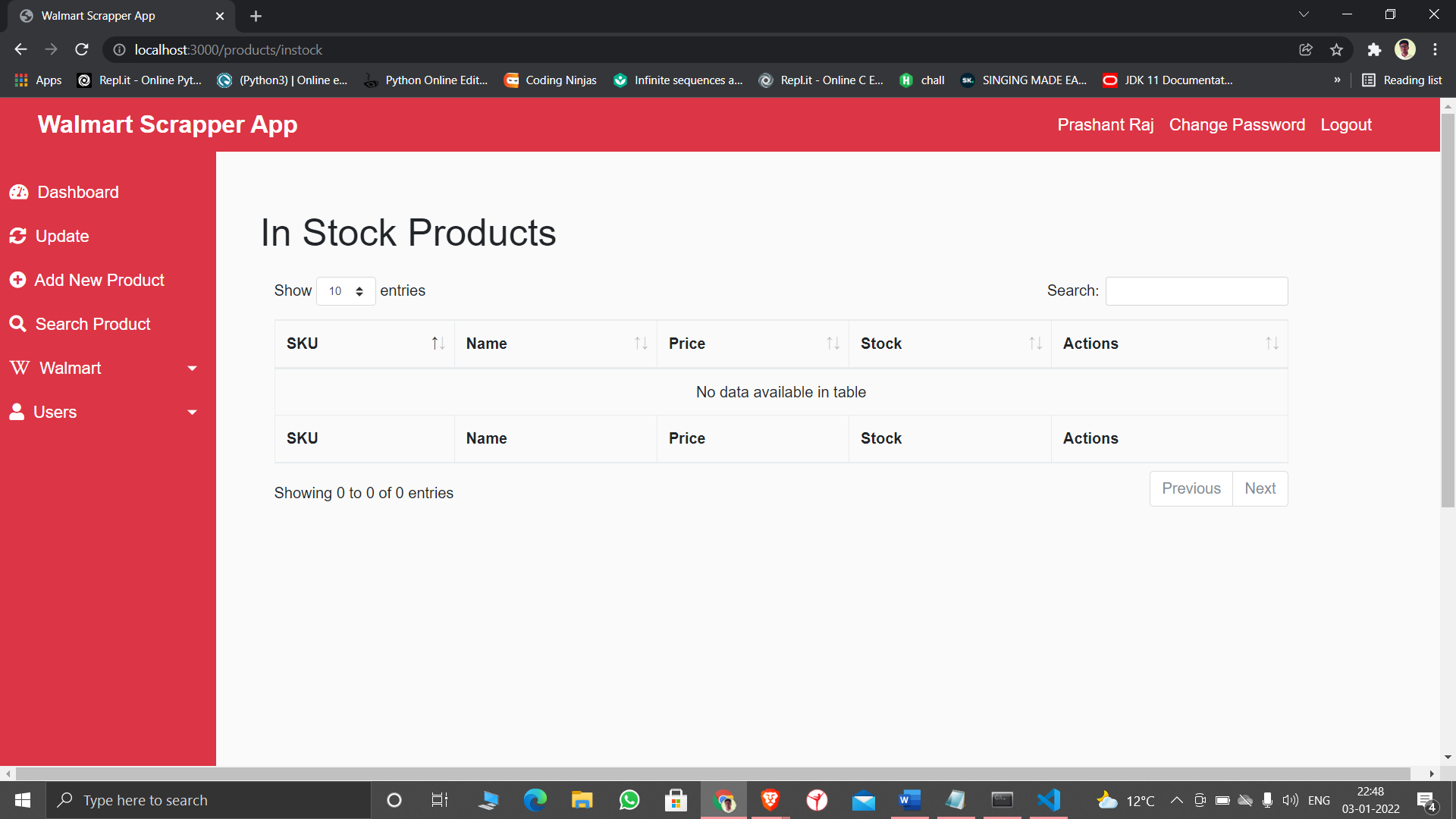
****

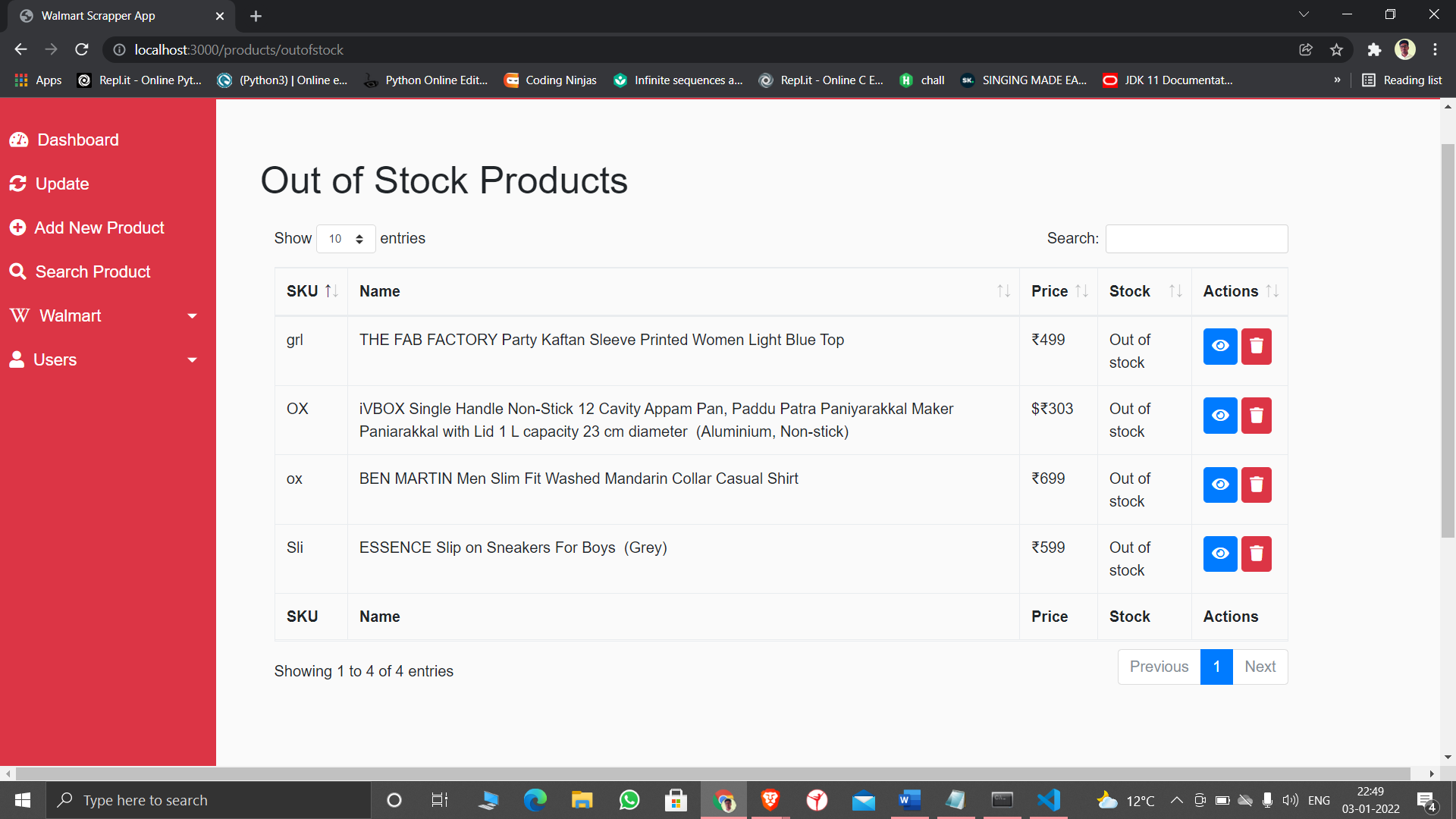
****

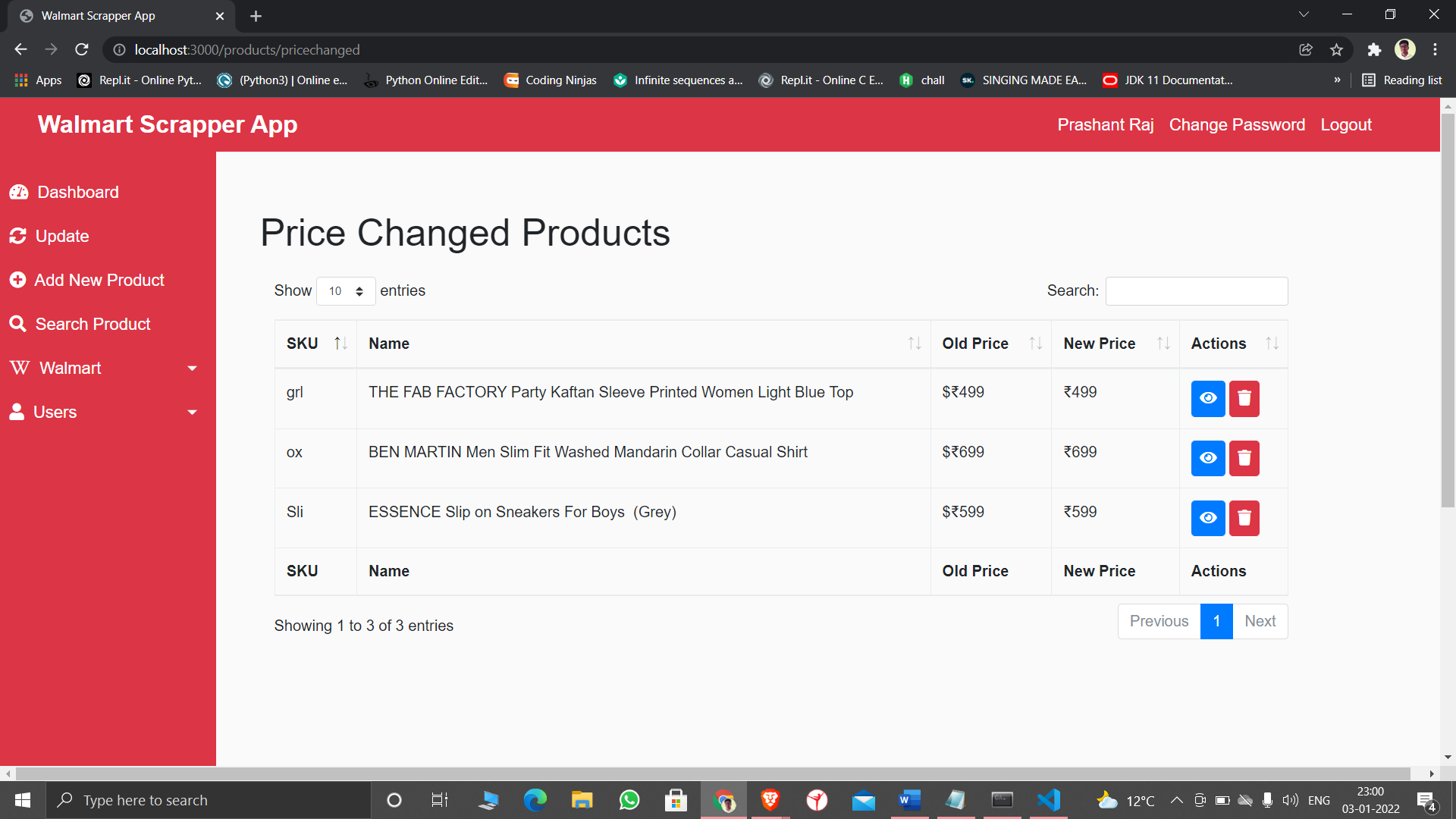
****

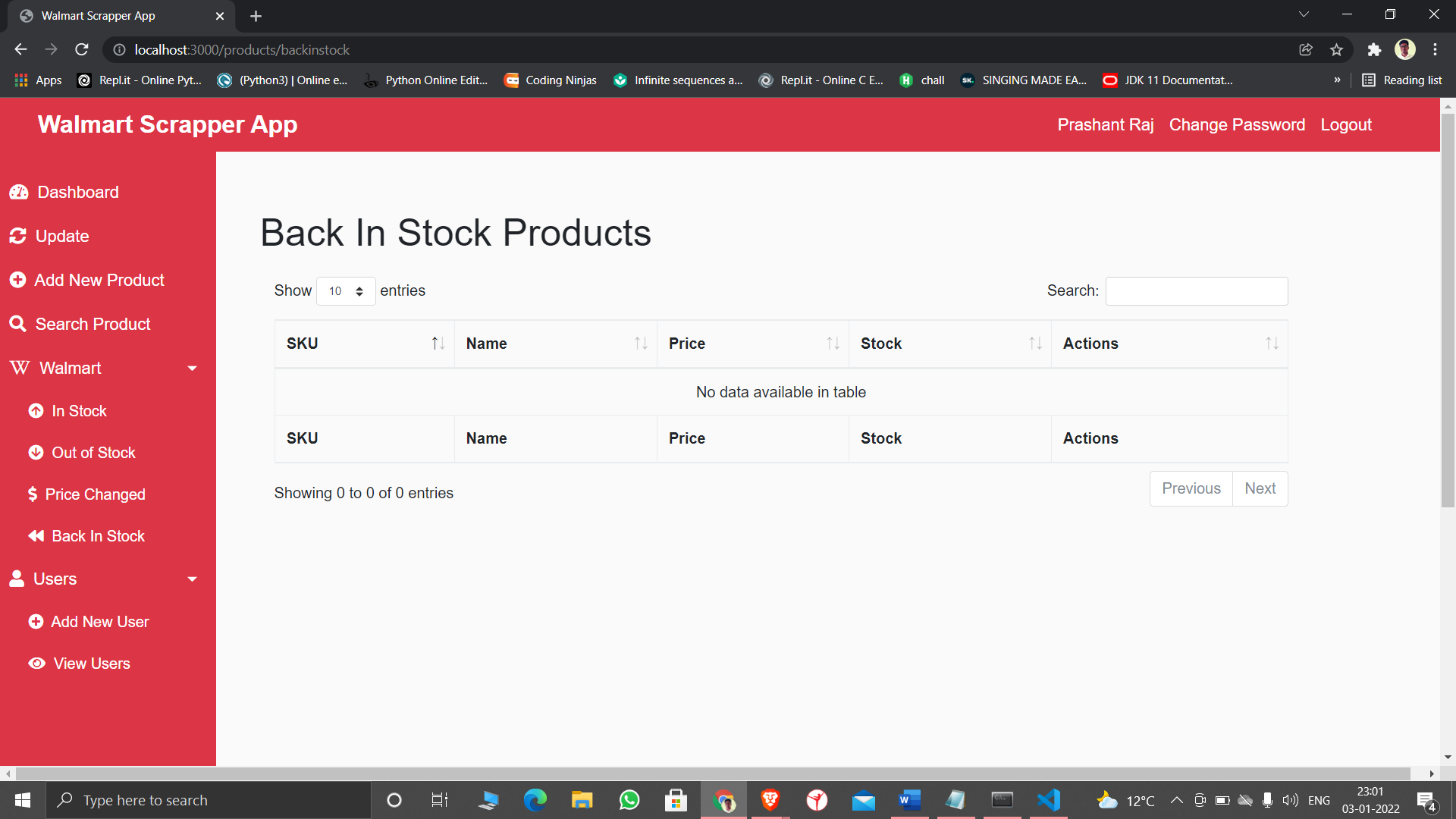
****

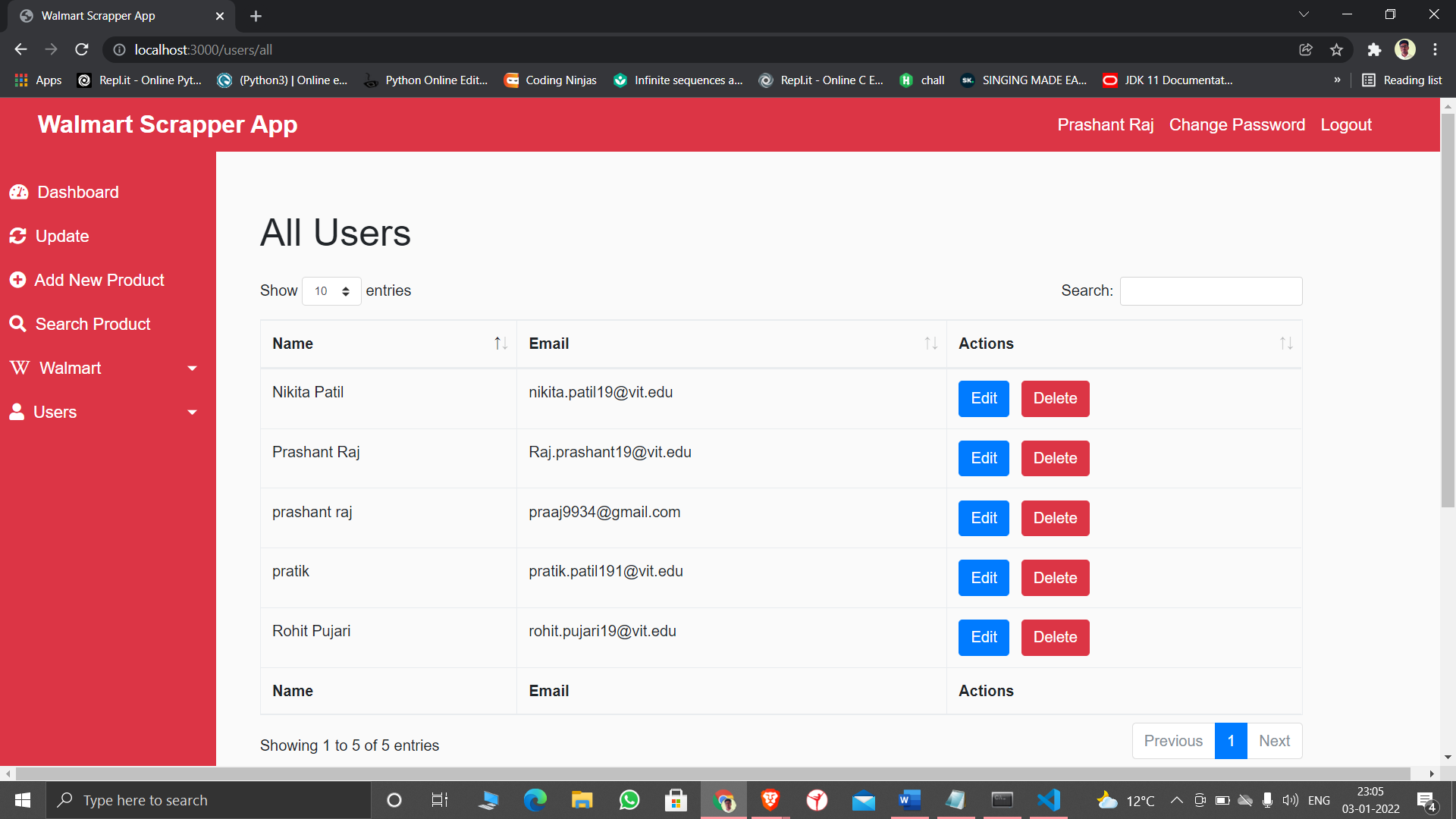
****

****

****

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****

****

**Conclusion:**

* All the functionalities are working properly.
* Due to a new update in the security check of Walmart now we are not able to scrape the data from Walmart.
* It is working properly for Flipkart.
* Also, there is some issue with Flipkart also in a stock management class, we are not able to scrape the stock data properly. It is always showing out of stock.