



# BUILDING AN ARTISANAL E-COMMERCE PLATFORM WITH IBM CLOUD FOUNDRY

*BY TEAM CLOUD CHASERS*

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# PHASE 3

Development part 1

## **PROBLEM STATEMENT:**

- Building an artisanal e-commerce platform to connect skilled artisans with a global audience
- This application showcases their handmade products and provides features like secure shopping carts, payment gateways, and an intuitive checkout process
- Adding features which enhances Platform Design, Product Showcase, User Authentication, Shopping Cart and Checkout, Payment Integration, and User Experience

**01**

Creating a login page or home page

**02**

Product showcase and descriptions

**03**

Authentication and registration

**04**

Modeling Shopping Cart and Checkout process

**05**

Secure Payment

**06**

Advanced user Experience

**07**

IBM cloud foundry

**08**

loading data into storage

**09**

products inserted into db2

01

# **CREATING A LOGIN PAGE OR HOME PAGE**

# Ecommerce artisan & **Handmade** Decor

Welcome to our artisans' E-commerce website, where creativity meets craftsmanship!  
Explore a world of exquisite handmade decor, lovingly crafted by skilled artisans.

[JOIN US](#)[Login Here](#)[Login](#)

Don't have an account  
[Sign up here](#)

Log in with



**IMPLEMENTED IN IBM CLOUD USING DB2  
AND  
CLOUD STORAGE**

Cloud Object Storage - IBM Cloud

https://cloud.ibm.com/objectstorage/crn%3Av1%3Abuemix%3Apublic%3Acloud-object-storage%3Aglobal%3Aa%2Fa0989f34bf984cb79ac7b...

IBM Cloud

Search resources and products...

Catalog Manage swetha G S's Account

Cloud Object Storage

Instances / Cloud Object Storage-18 / cloud-object-storage-cos-standard-v7d

Transfers

Upload success file.html

2023-10-18 4:03 PM

Upload (1 objects) Delete Complete

Objects Configuration Permissions

If you're seeing more usage than expected, versions count towards your usage or you may h

Prefix filter

<input type="checkbox"/> Object name	Archived ⓘ	Size
<input type="checkbox"/> file.html		2.5 KB

Drag and drop files (objects) here or click to upload

90°F Haze

Search

Cloud Object Storage

File Explorer

Mail

Google Chrome

OneDrive

4:03 PM 10/18/2023

Microsoft Edge | What's New | skillup login - Search | Steps to Create IBM Cloud Account | Service Details - IBM Cloud

https://cloud.ibm.com/services/dashdb-for-transactions/crn%3Av1%3Abluemix%3Apublic%3Adashdb-for-transactions%3Aeu-gb%3Aa%2Fa0989f34bf... A<sup>3</sup>

IBM Cloud Search resources and products... Catalog Manage swetha G S's Account ?

Resource list / Db2-yd Active Add tags Details Actions...

Manage Getting started Service credentials Connections

Service credentials

You can generate a new set of credentials for cases where you want to manually connect an app or external consumer to an IBM Cloud service. [Learn more](#)

New credential +

Key name	Date created	Actions
Service credentials-1	2023-10-18 12:14 PM	

32°C Haze

12:14 18-10-2023 ENG IN

Microsoft Edge | What's New | skillup login - Search | Steps to Create IBM Cloud Account | Service Details - IBM Cloud

https://cloud.ibm.com/services/dashdb-for-transactions/cm%3Av1%3Abluemix%3Apublic%3Adashdb-for-transactions%3Aeu-gb%3Aa%2Fa0989f34bf...

IBM Cloud Search resources and products... Catalog Manage swetha G S's Account

```
[{"bin": "db2", "certificate": {"certificate_base64": "LS0tLS1CRUdJTiBDRVJUSUZJQ0FURS0tLS0tCk1JSURIVENDQWdXZ0F3SUJBZ01VT3dvMC9va09CUEN5RjFWeFJxVGHKRW9ubDBVd0RRWUpLb1pJaHZjTkFRRUwKQ1FBd0hqRWNNQm9HQTFVRUF3d1RTVUp0SUVOc2IzVmtJRVJoZEEdGaV1YTmxjekF1RncweU1EQTRNRF3TWpVMwpNalphRncwek1EQTRNRE13TwpVM01qWmFNQjR4SERBYUJnT1ZCQU1NRTBsQ1RTQkR1RzkxWkNCRV1YUmhZbUZ6C1pYTXdnZ0VpTUEwR0NTcUdTSWIzRFFFQkFRVUFBNElCRHdBd2dnRUtBb01CQVFEB0ZFNGQ0SGd0eXZMUVIwR3gKQTB0amRXQnM4NVBjTDNyRStjN1R3K2diRUDQSUxJU0VZV3o4Y1g1TG1XQk0rY1Fn0G9VeSsrQXJ30EoxaXdRZQpySm1IU2I1c1F4WTM0c3B0eGRFVEZkWEhScnJhMGU2VmM4MW42T11JL0ZHSn1lQ3hrTG5GMUTFQW9hbHYwaDM2CnhDT0FvcXRwT1FrTzNpMTRGeU0yRDRiajkxckI4RGk4Vy9XMVpVdVhMNGwzzXVLZUVCeTRuZmhJV3kySVc3aUMKbGpMZ3R1N3hZTDVhbVpKOudsYwtrSnJ1cnpNREFQLzVUYnR1UUIdE1odTBRSSVRFZH1ESVFYUEZGRDBHYz1oZAo3M29JdnPVZUJ3VC9uRHN30TJNNC82SkdtZwpKn01pdFBTN3Y2a2d1UVhIND1BaUVJNXpQdUVpVzNOYi9GR0pYcmY2a2JBZ01CQUFHai1V6Q1JNQjBHQTFVZERnUVdCQ1R2Rz2RU5MRjFVbWZnQ003Mmx0cmMzSDI2bURBZkJnT1YKSFNNRUdEQVdnQ1R2Rzz2RU5MRjFVbWZnQ003Mmx0cmMzSDI2bURBUEJnT1ZIUK1CQWY4RUJUQURBUUgvTUEwRwpDU3FHU01iM0RRRUJDd1VBQTRJQkFRQTgvdFVnUTZ1aTZYWHZndDj0dUdzbkpva1YSUWNkaTNZbFVFWkNDUytjC1VQZ3NnMnVBM1dxch1WTm1mRkhjcHZ1Vmp0VHRYTmk2NUM2W1ZsRnYxc3p1cU9zdFB5bkJ4b1N4cUs0dkc0dTkKVjBWRUgxcE1tZnZBSmxkV3c4UEJTZGjtTk1HdGM4Sz1wT0o50VdBQ1ZFRXVXVGdDeHJKTFBZnpYUX1idUV0dwp0cW1pV2swTmVXNGk5ZEY4S2dTNUVaQWFodXVBS1R1dXB2R2RPV1U0eEV4bm03aEVRbmZPV2ZITThDd08xNWFZC1RGQ2s0Q0pDUmR4M1g5U284V3o1Z3MzcncycRkFDQ1JyZ0NYeFFDZnZrZTZUdVNHNkxFRHJHbmpWaXVSQkpZdW4KT1RxWXRoaVBHaHpuTHJ1L0Fzam1LMzBxQmFLTmFyNUdQajhqlpNb2Riz04KLs0tLS1FTkQgQ0VSVE1GSUNBVEUtLS0tLQo=", "name": "1dd14d0c-1b52-4f63-a606-53ecba28771d"}, {"composed": ["db2 -u zws19489 -p nBtr13esbhB5TRim --ssl --sslCAFile 1dd14d0c-1b52-4f63-a606-53ecba28771d --authenticationDatabase admin --host ea286ace-86c7-4d5b-8580-3fbfa46b1c66.bs2io90108kqb1od81cg.databases.appdomain.cloud:31505"]}, {"environment": {}, "type": "cli"}], "db2": {}}
```

NZ - AFG In 15 hours

12:15 ENG IN 18-10-2023

Microsoft Edge | Wh... | skillup login - Search | IBM Cloud | Module | Video: Basics of Cloud | Steps to Create IBM | Service Details - IBM | IBM Db2 on Cloud | + | - | X

https://bs2ipcul0apon0jufi80lite.db2.cloud.ibm.com/crn%3Av1%3Abluemix%3Apublic%3Adashdb-for-transactions%3Aeu-gb%3Aa%2Fa0989f34bf984...

IBM Db2 on Cloud

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

Source Target Define Finalize

You are loading the file **Product.csv**

File selection

Selected file

Product.csv

My Computer  
A single delimited text file (CSV) without header row.

Amazon S3

Cloud Object Storage

Drag a file here or browse files

Next

NIFTYMID100 -0.83%

13:12 18-10-2023 ENG IN

The screenshot shows the 'Load Data' interface of the IBM Db2 on Cloud service. The 'Source' tab is active, indicating that a file is being uploaded. A file named 'Product.csv' has been selected. The interface includes a 'File selection' area with a dashed box for dragging files and a 'Selected file' list containing the chosen CSV file. The left sidebar lists storage options like 'My Computer', 'Amazon S3', and 'Cloud Object Storage'. The bottom navigation bar shows system status and a date/time stamp.

Microsoft Edge | Wh... X skillup login - Search X IBM Cloud | Module X Video: Basics of Clou... X Steps to Create IBM... X Service Details - IBM... X IBM Db2 on Cloud X + -

https://bs2ipcul0apon0juifi80lite.db2.cloud.ibm.com/crn%3Av1%3Abluemix%3Apublic%3Adashdb-for-transactions%3Aeu-gb%3Aa%62Fa0989f34bf984...

IBM Db2 on Cloud

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

Source Target Define Finalize

You are loading the file Product.csv into ZWS19489.PRODUCT

Select a load target

Schema

Find schemas

ZWS19489

Table

Find tables in ZWS19489

PRODUCT

Refresh + New table +

Back Next

SENSEX -0.72%

13:15 18-10-2023 ENG IN

Microsoft Edge | Wh... X | skillup login - Search X | IBM Cloud | Module X | Video: Basics of Clou... X | Steps to Create IBM X | Service Details - IBM X | IBM Db2 on Cloud X + -

https://bs2ipcul0apon0jufi80lite.db2.cloud.ibm.com/crn%3Av1%3Abluemix%3Apublic%3Adashdb-for-transactions%3Aeu-gb%3Aa%2Fa0989f34bf984...

IBM Db2 on Cloud

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

Source Target Define Finalize

You are loading the file **Product.csv** into **ZWS19489.PRODUCT**

Code page (character encoding): 1208 (UTF-8) Separator: , Header in first row: Time & date format: Detect data types:

	PRODUCT_NAME VARCHAR(27)	PRODUCT_DETAILS VARCHAR(157)	PRODUCT_PRICE VARCHAR(7)	PRODUCT_REVIEW VARCHAR(22)
1	Handmade Wooden Coaster Set	Set of 4 handcrafted wooden coasters, made from sustainable materials. Perfect for protect	\$40.00	10 stare(10 reviews)
2	Handmade Ceramic Mug	Unique and stylish ceramic mug, handmade by a local artisan. Perfect for enjoying your favo	\$19.99	5 stars (10 reviews)
3	Handmade Soap	All-natural handmade soap, made with essential oils and botanicals. Gentle on the skin and	\$14.99	4.5 stars (20 reviews)
4	Handmade Jewelry	Beautiful and unique handmade jewelry, made from a variety of materials, including preciou	\$9.99	5 stars (50 reviews)
5	Handmade Scarf	Soft and cozy handmade scarf, made from wool or other natural fibers. Perfect for keeping y	\$29.99	5 stars (100 reviews)
6	Handmade Hat	Stylish and functional handmade hat, made from a variety of materials, including wool, strav	\$39.99	4.5 stars (30 reviews)
7	Handmade Quilt	Warm and inviting handmade quilt, made from a variety of fabrics. Perfect for adding a touch	\$29.99	5 stars (20 reviews)
8	Handmade Table runner	Beautiful and stylish handmade table runner, made from a variety of fabrics. Perfect for dres	\$199.99	5 stars (10 reviews)
9	Handmade pillow set	Set of 2 handcrafted pillowcases, made from a variety of fabrics. Perfect for adding a touch	\$39.99	5 stars (15 reviews)
10	Handmade Candle	All-natural handmade candle, made with soy wax and essential oils. Perfect for creating a re	\$29.99	5 stars (25 reviews)

Back Next

SENSEX -0.72% 13:15 18-10-2023 ENG IN



The screenshot shows the IBM Db2 on Cloud interface with the URL <https://bs2ipcul0apon0jufi80lite.db2.cloud.ibm.com/cm%3Av1%3Abluemix%3Apublic%3Adashdb-for-transactions%3Aeu-gb%3Aa%2Fa0989f34bf984cb79ac7bbd89abf8be7%3A30abc93e-cc1b-43c2-8731-a9d75c094588%3A%3A/console/index.html#/load/history>.

The interface has a top navigation bar with tabs: Microsoft Edge | Wh..., skillup login - Search..., IBM Cloud | Module..., Video: Basics of Clou..., Steps to Create IBM..., Service Details - IBM..., IBM Db2 on Cloud..., +, -, X.

The main header is "IBM Db2 on Cloud". The left sidebar includes icons for Home, SQL, Load Data, Tables, Views, Indexes, Aliases, MQTs, Sequences, Application objects, and a plus sign for new items.

The "Load History" tab is selected, showing a table of loaded data:

STATUS	SOURCE	FILENAME	TARGET	REQUESTED BY	ROWS LOADED	ROWS REJECTED
Success	My computer	Product.csv	ZWS19489.PRODUCT	zws19489	10	0

A blue "Load Data" button is located in the top right corner of the main content area.

Microsoft Edge | skillup login | Log into your account | Project Subm... | Project Subm... | Skills Network | Steps to Create | Service Detail | IBM Db2 on Cloud | + | - | X

https://bs2ipcul0apon0jufi80lite.db2.cloud.ibm.com/crn%3Av1%3Abluemix%3Apublic%3Adashdb-for-transactions%3Aeu-gb%3Aa%62Fa0989f34...

IBM Db2 on Cloud

Data objects    Saved objects

\* Untitled ...    +

Find objects

ZWS19489

- Tables
  - PRODUCT
- Views
- MQTs
- Aliases
- Nicknames

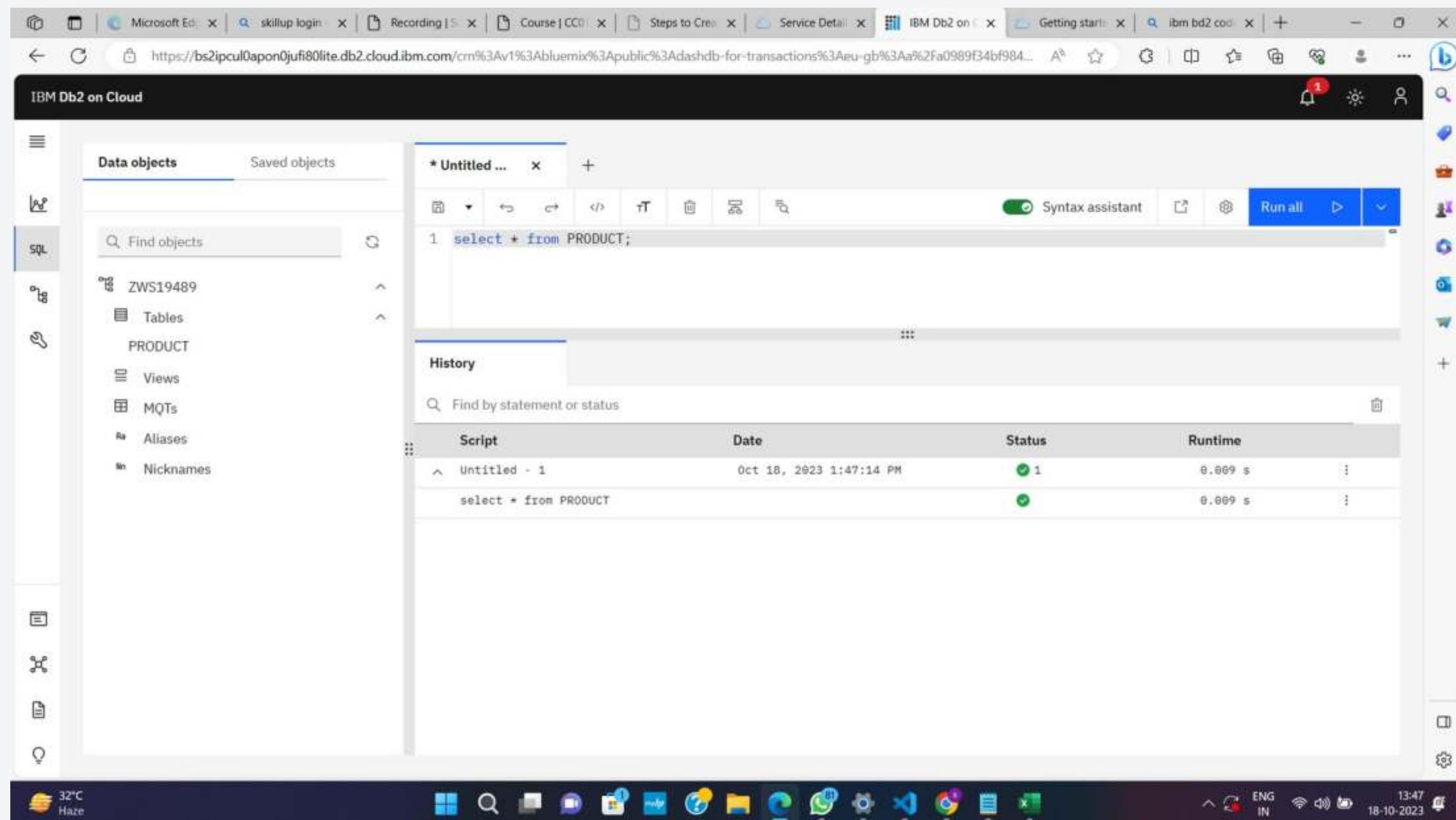
SQL

```
1 SELECT *  
2   FROM PRODUCT;  
3  
4 CREATE TABLE website (  
5   DETAILS VARCHAR(255),  
6   NAME VARCHAR(255),  
7   PRICE VARCHAR(255),  
8   REVIEW INT  
9 );  
10 select * from website;  
11 INSERT INTO website(DETAILS,NAME,PRICE,REVIEW)values('beautiful','jewellery',200,4);  
12 INSERT INTO website(DETAILS,NAME,PRICE,REVIEW)values('unique','craft',250,5);  
13 INSERT INTO website(DETAILS,NAME,PRICE,REVIEW)values('stylish','flowerpot',270,5);  
14 INSERT INTO website(DETAILS,NAME,PRICE,REVIEW)values('goodness','craft',250,5);  
15 select * from website;  
16  
17
```

32°C Haze

32°C Haze

15:40 18-10-2023



The screenshot shows a code editor interface with the following details:

- File Bar:** File, Edit, Selection, View, Go, Run, Terminal, Help.
- Search Bar:** product page.
- Toolbar:** RUN AN..., Launch Ch..., ...
- File List:** file.html, launch.json, style.css, script.js, 1.jpg.
- Sidebar:** VARIABLES, WATCH, CALL STACK, BREAKPOINTS, BROWSER BREAKPOINTS.
- Code Area:** An HTML file named "file.html". The code includes a title, a link to "style.css", and a menu with links to HOME, PRODUCT, SHOPPING CART, WHILIST, and CONTACT. It also features a search bar and a content section with a welcome message and a "JOIN US" button.
- Bottom Status Bar:** master, Launch Chrome (product page), Ln 64, Col 8, Spaces: 4, UTF-8, CRLF, HTML.
- System Icons:** Weather (30°C, Mostly clear), Taskbar icons (Windows, Search, Mail, Google Sheets, Google Photos, File Explorer, Edge, WhatsApp, Google Chrome, Microsoft Store, File Explorer, Task View).
- System Status:** ENG IN, 11:10:2023, 19:10.

The screenshot shows a dark-themed code editor interface with the following details:

- File Bar:** File, Edit, Selection, View, Go, Run, Terminal, Help.
- Search Bar:** product page
- Editor Tabs:** file.html, launch.json, style.css (active), script.js, 1.jpg
- Sidebar Sections:**
  - VARIABLES
  - WATCH
  - CALL STACK
  - BREAKPOINTS
  - BROWSER BREAKPOINTS
- Code Content:** A CSS file named style.css with the following code:

```
/* style.css */.btn{*margin: 0; padding: 0;}.main{width: 100%; background: linear-gradient(to top, #ff7200 50%, #fff 50%), url(1.jpg); background-position: center; background-size: cover; height: 100vh;}.navbar{width: 1200px; height: 75px; margin: auto;}.icon{width: 200px; float: left; height: 70px;}.logo{color: #ff7200; font-size: 35px; font-family: Arial; padding-left: 20px; float: left; padding-top: 10px; margin-top: 5px;}.menu{width: 400px;}
```
- Status Bar:** master, Launch Chrome (product page), 30°C Mostly clear, 19:10, 11-10-2023.

File Edit Selection View Go Run Terminal Help ← → 🔍 product page

RUN AN... Launch Ch ... file.html launch.json style.css script.js 1.jpg

> VARIABLES  
WATCH

```
JS script.js > ⚠<function>
1 (function(doc){}
2 var scriptElm = doc.scripts[doc.scripts.length - 1];
3 var warn = ['[ionicons] Deprecated script, please remove: ' + scriptElm.outerHTML];
4
5 warn.push('To improve performance it is recommended to set the differential scripts in the head as follows:');
6
7 var parts = scriptElm.src.split('/');
8 parts.pop();
9 parts.push('ionicons');
10 var url = parts.join('/');
11
12 var scriptElm = doc.createElement('script');
13 scriptElm.setAttribute('type', 'module');
14 scriptElm.src = url + '/ionicons.esm.js';
15 warn.push(scriptElm.outerHTML);
16 scriptElm.setAttribute('data-stencil-namespace', 'ionicons');
17 doc.head.appendChild(scriptElm);
18
19
20 scriptElm = doc.createElement('script');
21 scriptElm.setAttribute('nomodule', '');
22 scriptElm.src = url + '/ionicons.js';
23 warn.push(scriptElm.outerHTML);
24 scriptElm.setAttribute('data-stencil-namespace', 'ionicons');
25 doc.head.appendChild(scriptElm);
26
27 console.warn(warn.join('\n'));
28
29 })(document);
```

> CALL STACK

> BREAKPOINTS

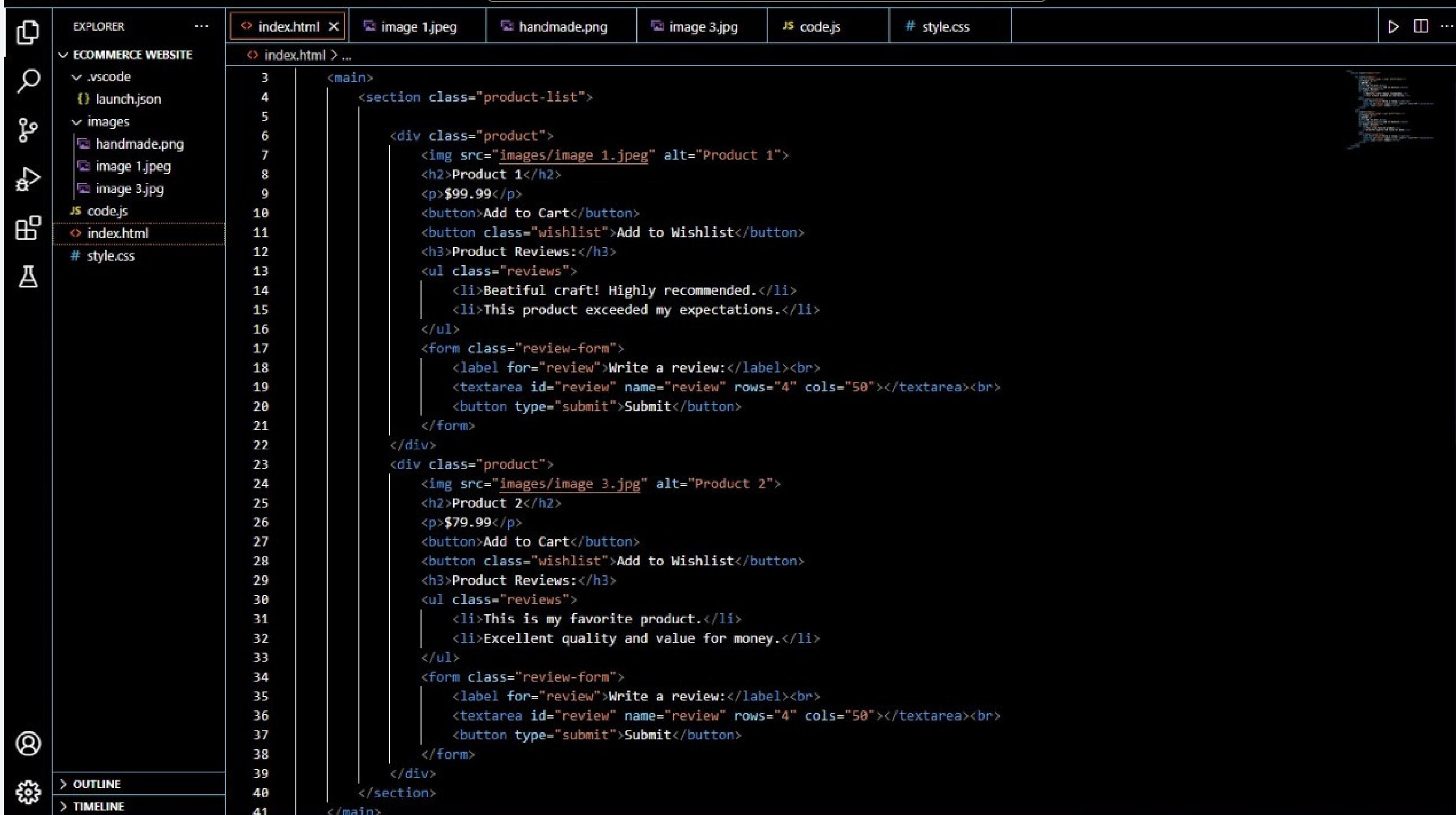
✓ BROWSER BREAKPOINTS

master ② 0 △ 0 ⌂ 0 ↗ Launch Chrome (product page)

30°C Partly cloudy

Ln 20, Col 45 Spaces: 4 UTF-8 CRLF () JavaScript

ENG IN 19:11 11-10-2023



The screenshot shows the Visual Studio Code (VS Code) interface with the following details:

- File Bar:** File, Edit, Selection, View, Go, Run, Terminal, Help.
- Search Bar:** ecommerce website
- Explorer View (Left):** Shows the project structure under "ECOMMERCE WEBSITE".
  - .vscode
  - images
    - handmade.png
    - image 1.jpeg
    - image 3.jpg
  - JS code.js
  - index.html
  - # style.css
- Code Editor (Main Area):** Displays the contents of "JS code.js". The code handles event listeners for wishlist buttons and review forms.

```
1 // scripts.js
2
3 // Add event listeners to wishlist buttons
4 const wishlistButtons = document.querySelectorAll('.wishlist');
5 wishlistButtons.forEach(button => {
6   button.addEventListener('click', (event) => {
7     // Add item to wishlist
8     const product = event.target.parentElement;
9     const productName = product.querySelector('h2').innerText;
10    -----
11    // TODO: Implement wishlist functionality
12  });
13);
14
15 // Add event listeners to review forms
16 const reviewForms = document.querySelectorAll('.review-form');
17 reviewForms.forEach(form => {
18   form.addEventListener('submit', (event) => {
19     event.preventDefault();
20     const product = event.target.parentElement;
21     const productName = product.querySelector('h2').innerText;
22     const review = event.target.elements.review.value;
23     -----
24     // TODO: Add the review to the product's reviews list
25
26     event.target.reset();
27   });
28});
```
- Bottom Status Bar:** Shows file status (0 changes), terminal status (Launch Chrome against localhost (ecommerce website)), and other settings like spaces, encoding, and file type (JavaScript).

File Edit Selection View Go Run Terminal Help ← → 🔍 ecommerce website

EXPLORER ...

ECOMMERCE WEBSITE

- .vscode
- launch.json
- images
- handmade.png
- image 1.jpeg
- image 3.jpg
- code.js
- index.html
- # style.css 1

# style.css > .product form

```
1 main {  
2     padding: 20px;  
3     display: flex;  
4     flex-wrap: wrap;  
5 }  
6  
7 .product-list {  
8     width: 100%;  
9     display: flex;  
10    flex-wrap: wrap;  
11    justify-content: space-between;  
12 }  
13  
14 .product {  
15     width: calc(45% - 20px);  
16     margin-bottom: 20px;  
17     padding: 10px;  
18     background-color: #f8f8f8;  
19 }  
20  
21 .product img {  
22     max-width: 100%;  
23     height: auto;  
24 }  
25  
26 .product h2 {  
27     font-size: 18px;  
28     margin-top: 10px;  
29     margin-bottom: 5px;  
30 }  
31  
32 .product p {  
33     font-weight: bold;  
34     margin-bottom: 10px;  
35 }  
36  
37 .product button {  
38     margin-bottom: 10px;  
39 }
```

Ln 52, Col 2 Spaces: 4 UTF-8 CRLF CSS Go Live