



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

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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-l8 / cloud-object-storage-cos-standard-v7d

Instances Objects Configuration Permissions

If you're seeing more usage than expected, versions count towards your usage or you may have exceeded your quota.

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

Upload success file.html 2023-10-18 4:03 PM Upload (1 objects) Delete Complete

90°F Haze

Search

4:03 PM 10/18/2023

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

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

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

Resource list / Db2-yd Active Add tags 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
Service credentials-1	2023-10-18 12:14 PM

32°C Haze

12:14 18-10-2023 ENG IN 88 88

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...

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

```
        "zws19489",
        "-p",
        "nBtr13esbhB5TRim",
        "--ssl",
        "--sslCAFile",
        "1dd14d0c-1b52-4f63-a606-53ecba28771d",
        "--authenticationDatabase",
        "admin",
        "--host",
        "ea286ace-86c7-4d5b-8580-3fbfa46b1c66.bs2io90108kqb1od81cg.databases.appdomain.cloud:31505"
    ]
],
"bin": "db2",
"certificate": {
    "certificate_base64": "LS0tLS1CRUdJTiBDRVJUSUZJQ0FURS0tLS0tCk1JSURIVENDQWdXZ0F3SUJBZ01VT3dvMC9va09CUEN5RjFWeFJxVGhKRW9ubDBVd0RRWUpLb1pJaHZjTkFRRUwKQ1FBd0hqRWNNQm9HQTFVRUF3d1RTVUpOSUV0c2IzVmtJRVJoZEgGaV1YTmxjekF1RncweU1EQTRNRF3TWpVMwpNalphRncwek1EQTRNRE13TwpVM01qWmFNQjR4SERBYUJnT1ZCQU1NRTBsQ1RTQkRiRzkxWkNCRV1YUmhZbUZ6C1pYTXdnZ0VpTUEwR0NTcUdTSWIzRFFFQkFRVUFBNElCRHdBd2dnRUtBb01CQVFEB0ZFNGQ0SGd0eXZMUVIwR3gKQTB0amRXQnM4NVbJTDNyRStjN1R3K2diRUDQSUxJU0VZV3o4Y1g1TG1XQk0rY1Fn0G9VeSsrQXJ30EoxaXdRZQpySm1IU2I1c1F4WTM0c3BQeGRFVEZkWEhScnJhMGU2VmM4MW42T11JL0ZHSn11Q3h1TG5GMUTFQW9hbHYwaDM2CnhDT0FvcXRwT1F1TzNpMTRGeU0yRDRiajkxcki4RGk4Vy9XMVpVdVhMNGwzzXVLZUVCeTRuZmhJV3kySVc3aUMKbGpMZ3R1N3hZTDVhbVpKOudsYwtrSnJ1cnpNREFQLzVUYnR1UUIdE1odTBRSVRFZH1ESVFYUEZGRDBHYz1oZAo3M29JdnpVZUJ3VC9uRHN30TJNNC82SkdtZWpKn01pdFBTN3Y2a2d1UVhIND1BaUVJNXpQdUVpVzNOYi9GR0pYCMY2a2JBZ01CQUFHalV6Q1JNqjBHQTFRVZERnUVdCQ1R2Rz2RU5MRjFVbWZnQ003Mmx0cmMzSDI2bURBZkJnT1YKSFNNRUdEQVdnQ1R2RzZ2RU5MRjFVbWZnQ003Mmx0cmMzSDI2bURBUEJnT1ZIuk1CQWY4RUJUQURBUUgvTUEwRwpDU3FHU01iM0RRRUJDd1VBQTRJQkFRQTgvdFVnUTZ1aTZYWHZndDJ0dUdibkpva1Y5UWNkaTNZbFVFwkNDUytjC1VQZ3NnMnVBM1dxch1WTm1mRkhjcHZ1Vmp0VHRYTmk2NUM2W1ZsRnYxc3p1cU9zdFB5bkJ4b1N4cUs0dkc0dTkKVjBWRUgxcE1tZnZBSmxkV3c4UEJTZGjtTk1HdGM4Sz1wT0o50VdBQ1ZFRXVXVGdDeHJKTFBZnpYUX1idUV0dwp0cW1pV2swTmVXNGk5ZEY4S2dTWWVaQWFodXVBS1R1dXB2R2RPV1U0eEV4bm03aEVRbmZPV2ZITThDd08xNWFZC1RGQ2s0Q0pDUmR4M1g5U284V3o1Z3MzcncyRkFDQ1JyZ0NYeFFDZnZrTZUdVNHNkxFRHJHbmpWaXVSQkpZdW4KT1RxWXRoaVBHaHpuTHJ1L0Fzam1LMzBxQmFLTmFyNUdQajhqlpNb2Riz04KLS0tLS1FTkQgQ0VSVE1GSUNBVEUtLS0tLQo=",
        "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 | Who 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:

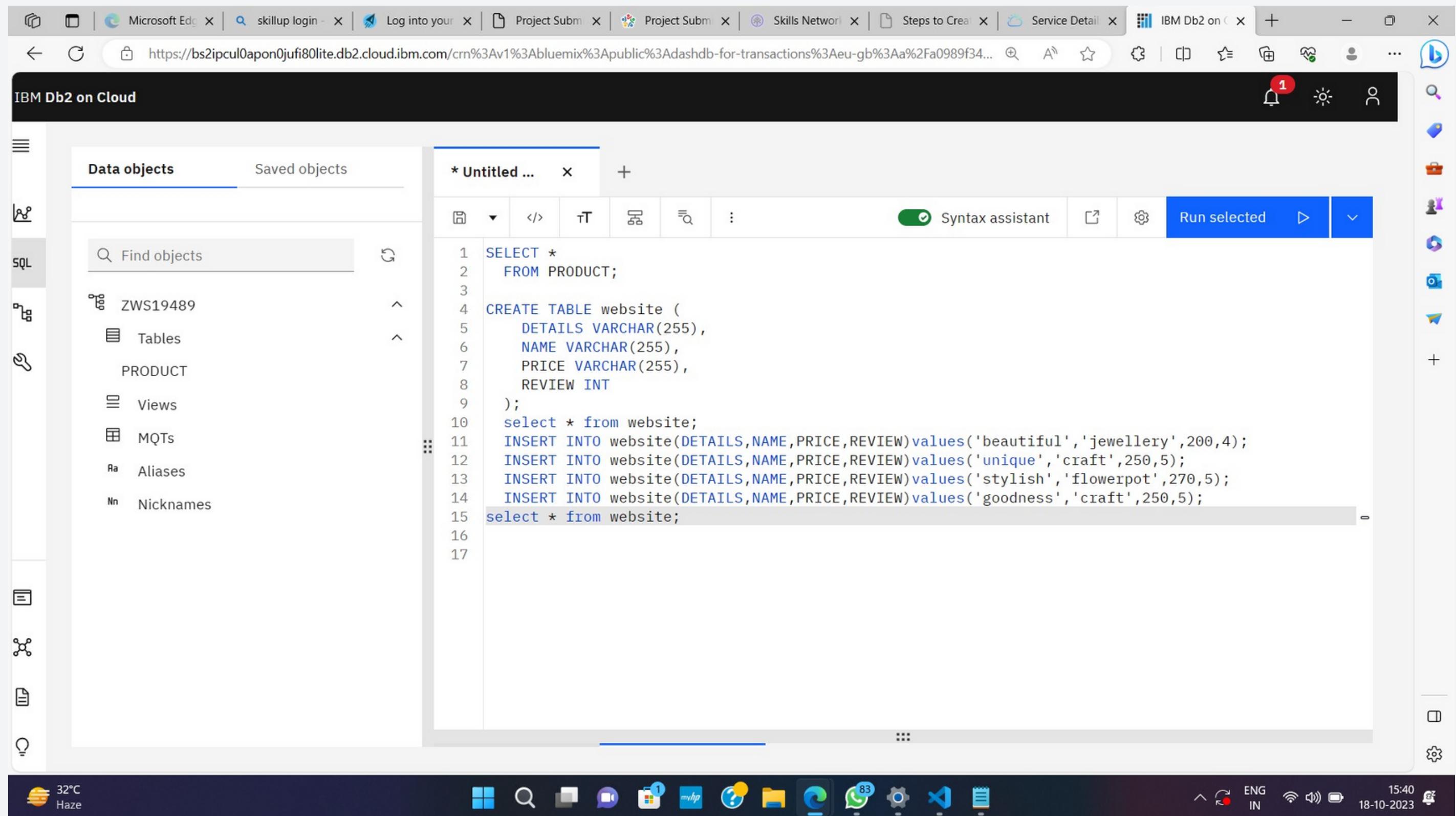
	PRODUCT_NAME VARCHAR(27)	PRODUCT_DETAILS VARCHAR(157)	PRODUCT_PRICE VARCHAR(7)	PRODUCT_REVIEW VARCHAR(22)
1	Handmade Wooden Coaster Set	Set of 4 handcrafted wooden coasters, made from sustainable materials. Perfect for protect	\$40.00	10 stare(10 reviews)
2	Handmade Ceramic Mug	Unique and stylish ceramic 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







Microsoft Edge | skillup login - | Recording | Course | CC01 | Steps to Create | Service Detail | IBM Db2 on Cloud | Getting started | ibm bd2 code | +

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

### IBM Db2 on Cloud

Data objects    Saved objects

SQL

ZWS19489

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

\* Untitled ... x +

```
1 select * from PRODUCT;
```

Syntax assistant    Run all

History

Script	Date	Status	Runtime
Untitled - 1	Oct 18, 2023 1:47:14 PM	✓ 1	0.009 s
select * from PRODUCT		✓	0.009 s

32°C Haze

13:47 18-10-2023

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

RUN AN... ▶ Launch Ch... ⚙ ... file.html X launch.json # style.css script.js 1.jpg

> VARIABLES

< WATCH

```
file.html > html
1  <!DOCTYPE html>
2  <html lang="en">
3  <head>
4      <title>Ecommerce artisan homemade decor</title>
5      <link rel="stylesheet" href="style.css">
6  </head>
7  <body>
8
9      <div class="main">
10         <div class="navbar">
11             <div class="icon">
12                 <h2 class="logo">Artisan</h2>
13             </div>
14
15             <div class="menu">
16                 <ul>
17                     <li><a href="#">HOME</a></li>
18                     <li><a href="#">PRODUCT</a></li>
19                     <li><a href="#">SHOPPING CART</a></li>
20                     <li><a href="#">WHLIST</a></li>
21                     <li><a href="#">CONTACT</a></li>
22                 </ul>
23             </div>
24
25             <div class="search">
26                 <input class="srch" type="search" name="" placeholder="Type To text">
27                 <a href="#"> <button class="btn">Search</button></a>
28             </div>
29
30         </div>
31         <div class="content">
32             <h1>Ecommerce artisan & <br><span>Handmade</span> <br>Decor</h1>
33             <p class="par">Welcome to our artisans' E-commerce website, where creativity meets craftsmanship!<br> Explore a world of exquisite
34             <br>
35             </p>
36
37             <button class="cn"><a href="#">JOIN US</a></button>
```

> BREAKPOINTS

< BROWSER BREAKPOINTS

master ⊕ ① 0 △ 0 ⌂ 0 🔍 Launch Chrome (product page)

Ln 64, Col 8 Spaces: 4 UTF-8 CRLF HTML

30°C Mostly clear

Windows Taskbar icons: File Explorer, Search, Task View, Microsoft Edge, Microsoft Store, Microsoft Support, File Manager, WhatsApp, Google Chrome, Microsoft Word, Microsoft Excel.

System tray: ENG IN, Wi-Fi, Battery, Date/Time: 19:10, 11-10-2023.

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

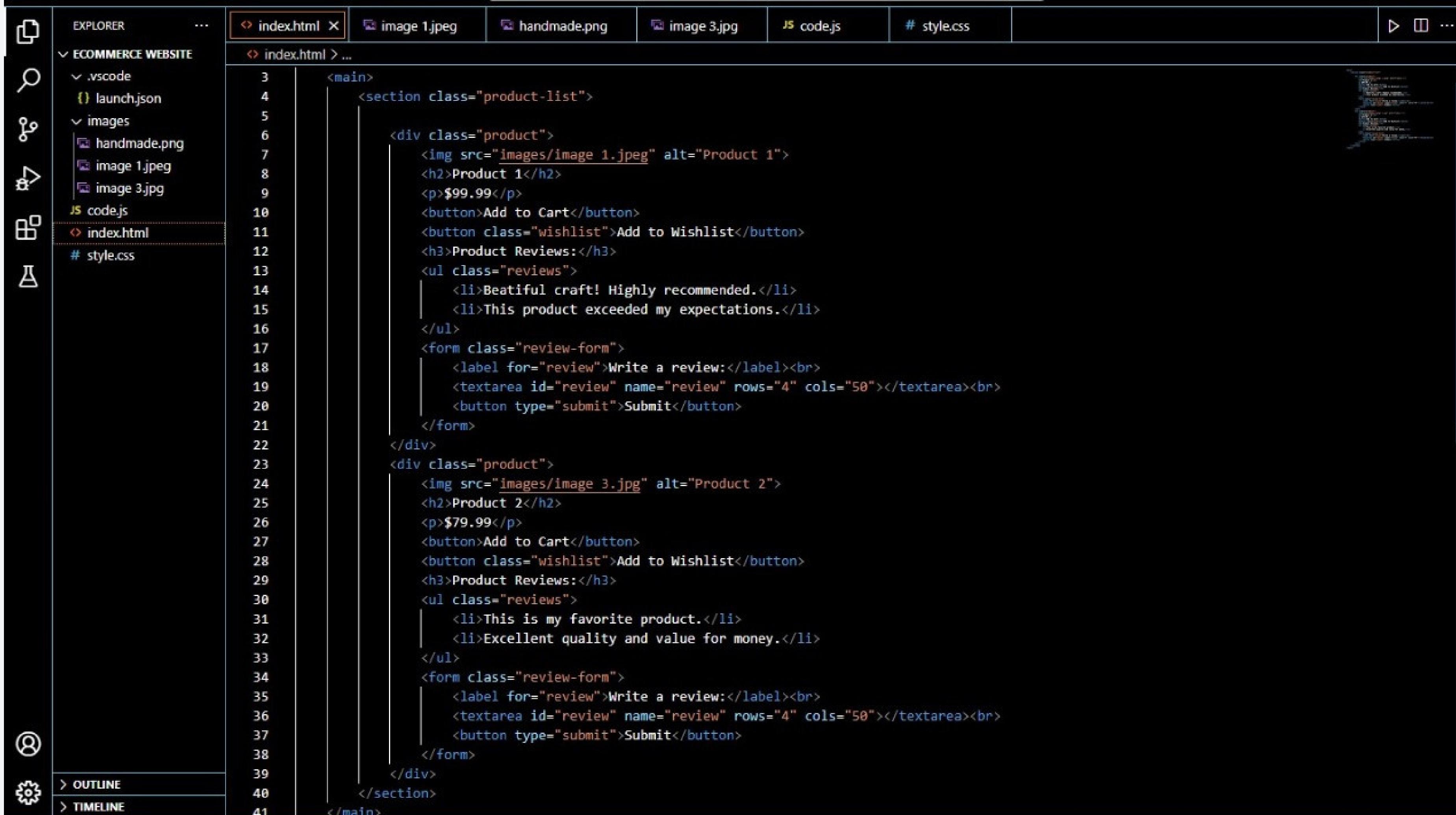
- File Bar:** File, Edit, Selection, View, Go, Run, Terminal, Help.
- Search Bar:** product page
- Editor Tabs:** file.html, launch.json, style.css (active), script.js, 1.jpg
- Sidebar Sections:**
  - VARIABLES
  - WATCH
  - CALL STACK
  - BREAKPOINTS
  - BROWSER BREAKPOINTS
- Code Content:** A CSS file 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), Ln 98, Col 36, Spaces: 4, UTF-8, CRLF, CSS, 30°C Mostly clear, ENG IN, 19:10, 11-10-2023.

The screenshot shows a browser developer tools interface with the "script" tab selected. The code editor displays a JavaScript file named "script.js". The code is as follows:

```
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);
```

The code is annotated with several comments and a warning message. Lines 1 through 19 are standard script execution logic. Lines 20 through 29 show an alternative way to create the script element, using "nomodule" instead of "type: module". A yellow warning icon is placed before line 20, and a yellow warning message is displayed in the status bar at the bottom: "[ionicons] Deprecated script, please remove: [REDACTED]". The status bar also shows the file path "Launch Chrome (product page)" and the current position "Ln 20, Col 45".



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
- Left Sidebar (Explorer):** Shows the project structure under "ECOMMERCE WEBSITE".
  - .vscode (with launch.json)
  - images (with handmade.png, image 1.jpeg, image 3.jpg)
  - JS code.js
  - index.html
  - # style.css
- Central Area (Code Editor):** Displays the contents of JS code.js.

```
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: 4, UTF-8, CRLF, and Go Live.

A screenshot of a dark-themed code editor interface, likely Visual Studio Code, displaying CSS code for an ecommerce website. The top bar includes standard file operations like File, Edit, Selection, View, Go, Run, Terminal, Help, and navigation arrows. The title bar reads "ecommerce website". The left sidebar has icons for Explorer, Search, Open, Find, and Settings, with "EXPLORER" and "ECOMMERCE WEBSITE" sections visible. The main area shows the following CSS code:

```
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  }
```

The status bar at the bottom indicates "Ln 52, Col 2" and "Spaces: 4".