

## E commerce application

### Introduction:

An e-commerce application on IBM Cloud Foundry is a web-based platform that enables businesses to sell products or services online using IBM's Cloud Foundry platform as the hosting environment. IBM Cloud Foundry is a Platform-as-a-Service (PaaS) offering that simplifies the process of building, deploying, and scaling web applications. When applied to e-commerce, it provides a reliable and scalable infrastructure for running online stores.

### Problem Statement:

"In today's digital age, there is a growing demand for an e-commerce platform that provides a seamless and secure online shopping experience. The goal of this project is to develop and deploy a robust e-commerce application that addresses the following key challenges and objectives:

### Challenges:

**Scalability:** Our e-commerce platform must be able to handle varying levels of traffic, including peak periods during sales events and holidays. Ensuring high performance and availability under load is essential.

**Data Security:** Given the sensitive nature of customer information and payment data, the application must implement stringent security measures, including encryption, access controls.

**Integration:** Integrating essential components such as payment gateways, inventory management systems, and customer relationship management (CRM) tools seamlessly into the e-commerce application for streamlined operations.

**Analytics and Insights:** Leveraging data analytics tools to gain valuable insights into user behavior, sales trends, and customer preferences, facilitating data-driven decision-making and continuous improvement.

**Design Thinking:**

**Support Cross-border and Global Sales:**

Competing in today's market requires a global presence. Concentrating only on local potentials can leave your business vulnerable to the whims of local economies.

**Adopt a Mobile-First Approach:**

Customers have grown comfortable with their mobile phones for online transactions. Still, there are enterprise-level merchants who haven't moved to mobile optimized stores. They must consider developing a mobile

platform so that they don't lose a large chunk of their customers due to this oversight.

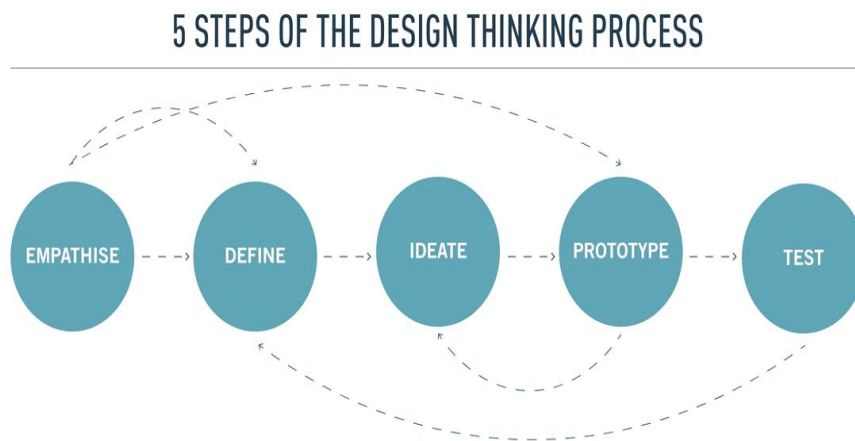
Ease of Navigation :

The user should be able to easily understand and maneuver through the website, possibly with a few clicks. This makes e-commerce web design tricky since many of them have hundreds of products, and all of them should be arranged properly.

Search Functionality:

Investing time in optimizing your search functionality to be accurate will guarantee customer satisfaction.

common methods:



Application of cloud computing in e-commerce and related security threats:

This technology emphasizes the development of commercial

self-service portals and tools, which will allow banks to provide fast, detailed data to their business clients, allowing

them to make better-informed management decisions.

Threat to E-Commerce:

E-commerce refers to the act of buying and selling products

over the internet. Simply put, it refers to commercial transactions

conducted over the internet. E-commerce technology includes:

Mobile commerce.

Internet marketing.

Online transaction processing.

Electronic funds transfer.

Inventory management systems.

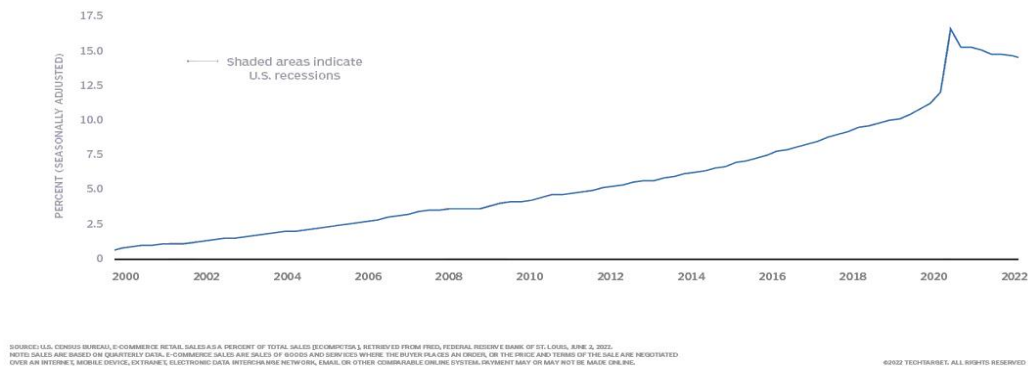
Automated data gathering systems.

An e-commerce threat is the use of the internet for unfair purposes such as stealing, fraud, and security breaches.  
E-commerce.

E-commerce sales continue to increase, so businesses must understand its unique challenges to improve their strategies

## E-commerce retail sales on the rise

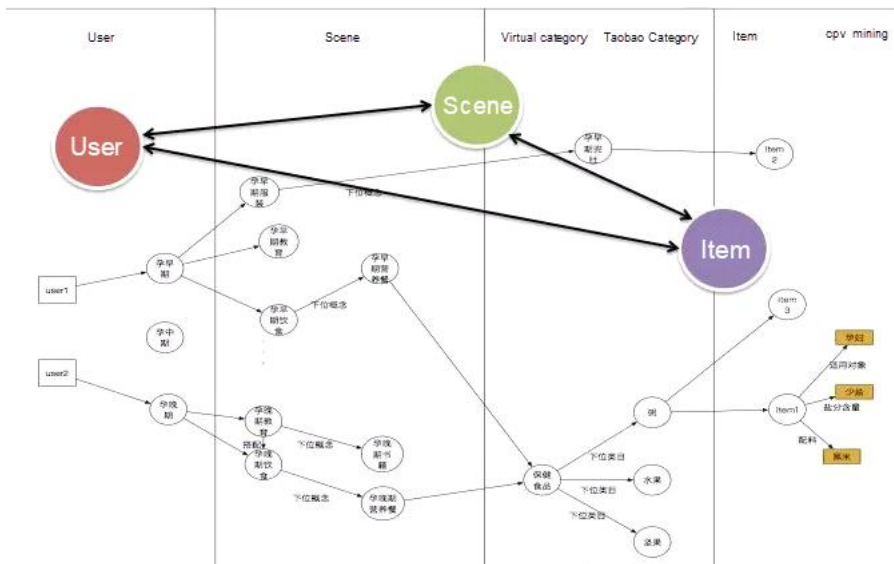
E-commerce retail sales as a percentage of total sales



## Module Division

E-commerce ConceptNet is divided into four key modules.  
User-scene-item association can be achieved through building different types of concepts that include users,

scenes, virtual categories, and items in a heterogeneous graph.



let see some code of js in e commerce application

```
let contentTitle;
```

```
console.log(document.cookie);
```

```
function dynamicClothingSection(ob) {
```

```
    let boxDiv = document.createElement("div");
```

```
    boxDiv.id = "box";
```

```
    let boxLink = document.createElement("a");
```

```
    // boxLink.href = '#'
```

```
    boxLink.href = "/contentDetails.html?" + ob.id;
```

```
    // console.log('link=>' + boxLink);
```

```
let imgTag = document.createElement("img");
```

```
// imgTag.id = 'image1'
```

```
// imgTag.id = ob.photos
```

```
imgTag.src = ob.preview;
```

```
let detailsDiv = document.createElement("div");
```

```
detailsDiv.id = "details";
```

```
let h3 = document.createElement("h3");
```

```
let h3Text = document.createTextNode(ob.name);
```

```
h3.appendChild(h3Text);
```

```
let h4 = document.createElement("h4");
```

```
let h4Text = document.createTextNode(ob.brand);
```

```
h4.appendChild(h4Text);
```

```
let h2 = document.createElement("h2");
```

```
let h2Text = document.createTextNode("rs    " +  
ob.price);
```

```
h2.appendChild(h2Text);
```

```
boxDiv.appendChild(boxLink);
```

```
boxLink.appendChild(imgTag);
```

```
boxLink.appendChild(detailsDiv);
```

```
detailsDiv.appendChild(h3);
```

```
detailsDiv.appendChild(h4);
```

```
detailsDiv.appendChild(h2);
```

```
return boxDiv;
```

```
}
```

```
// TO SHOW THE RENDERED CODE IN CONSOLE
```

```
// console.log(dynamicClothingSection());
```

```
// console.log(boxDiv)
```

```
let mainContainer =
```

```
document.getElementById("mainContainer");
```

```
let containerClothing =
```

```
document.getElementById("containerClothing");
```



```
let containerAccessories =  
document.getElementById("containerAccessories");  
  
//  
mainContainer.appendChild(dynamicClothingSection('hello  
world!!'))
```

```
// BACKEND CALLING
```

```
let httpRequest = new XMLHttpRequest();
```

```
httpRequest.onreadystatechange = function() {  
    if (this.readyState === 4) {  
        if (this.status === 200) {  
            // console.log('call successful');  
            contentType = JSON.parse(this.responseText);  
            if (document.cookie.indexOf(",counter=") >= 0) {  
                var counter =  
document.cookie.split(",")[1].split("=")[1];  
                document.getElementById("badge").innerHTML  
= counter;  
            }  
            for (let i = 0; i < contentType.length; i++) {
```

```
        if (contentTitle[i].isAccessory) {
            console.log(contentTitle[i]);
            containerAccessories.appendChild(
                dynamicClothingSection(contentTitle[i])
            );
        } else {
            console.log(contentTitle[i]);
            containerClothing.appendChild(
                dynamicClothingSection(contentTitle[i])
            );
        }
    }
} else {
    console.log("call failed!");
}
}

};

httpRequest.open(
    "GET",
```

```
"https://5d76bf96515d1a0014085cf9.mockapi.io/product"
```

```
,
```

```
    true
```

```
);
```

```
httpRequest.send();
```

conclusion:

E-commerce still represents one of the business methods that take advantage if done the right way, even if the stock market and commodities fell, but E-Commerce still able to survive and receive high transaction.

Use the extensive E-Commerce in the Internet world is actually much better to bring the goodness of the individual or the state.