

**AN ARTISANAL E-COMMERCE PLATFORM  
USING IBM CLOUD FOUNDRY.**

*Submitted in partial fulfilment of the degree of*

**BACHELOR OF ENGINEERING**

**in**

**COMPUTER SCIENCE ENGINEERING.**

**Panimalar Institute of Technology, Chennai.**

**(BATCH 2021-2025)**

**By**

V.Krishwar(au211521104077).

Kethari Sathyendra(au211521104072).

Kolla Naveen Chowdary(au211521104074).

Mohammed Sarfaraz(au211521104088).

Arcot Nikhil(au211521104012).

# ABSTRACT

In our digital world, artisans who make beautiful things like jewelry and home decor need a way to sell their creations to people all over the world. This project is about creating a special online store for these talented artisans. We're using IBM Cloud Foundry, a powerful tool, to make this happen.

Our online store will be a place where artisans can show off their handmade products, and customers can easily buy them. We're making sure it's safe and easy to shop here. You can add items to a cart, pay for them, and check out without any hassles.

Our goal is to support small businesses and help creative people reach their dreams. This document tells the story of how we built this online store, from the very beginning to the end.

The portal can be divided into two parts i.e. The frontend which will be available to the user & the backend where data will be processed and maintained.

We followed all the rules of honesty and fairness in our work. We gave credit to the sources that helped us, and we didn't make up or change anything to trick anyone. If we didn't follow these rules, our school could act against us, and the sources we didn't give credit to might also face problems. We're committed to making this a great place for artisans and customers.

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# CHAPTER – 01

## OVERVIEW

### 1.1 Introduction: -

This artisanal E-commerce platform is a web-based portal designed keeping in mind the dedication and hard work of individual artisans and craftsmen. Aim is to incorporate modern technology to provide artisans with a platform to showcase their skills of crafts and cater to a wider range of audience. This approach reduces the cost of acquiring a middle-man and also provides an opportunity for a greater profit margin for the sellers. Sellers can directly register on the portal and showcase their skills to the world. The portal is a digital store where users can buy various products handcrafted by skilled artisans and individual manufacturers in accordance to their needs. The website is trendy and highly functional in accordance with the needs of a modern consumer. The administrator owns the right over the data displayed on the portal. Artisans register as sellers and send their products information to the administrator who manages the data at the backend.

### 1.2 Objective of this project: -

**Connect Artisans Globally:** Establish a platform to bridge skilled artisans with a worldwide customer base, fostering international connections.

**Showcase Handmade Excellence:** Showcase and promote a diverse range of high-quality handmade products, including jewelry and home decor.

**User-Friendly Experience:** Ensure a seamless user experience with secure shopping carts, efficient payment gateways, and an intuitive checkout process.

**Support Small Businesses:** Empower small artisanal businesses by providing them with a dedicated marketplace to reach a broader audience.

**Secure Transactions:** Implement robust security measures to safeguard customer data and financial transactions.

### 1.3 Benefits of this project: -

**Product Categories:** The platform will encompass various artisanal product categories, including jewelry, home decor, clothing, and more.

**Global Access:** Artisans and customers worldwide can access the platform.

**User Profiles:** Artisans and customers can create profiles, showcasing their work or preferences.

**Shopping Features:** Users can add items to a cart, make secure payments, and experience a smooth checkout process.

**Payment Integration:** Integrate multiple payment gateways to accommodate various customer preferences.

**Feedback and Ratings:** Implement a feedback system, allowing customers to rate and review products and artisans.

**Marketing and Promotion:** Develop strategies for marketing and promoting artisanal products and the platform itself.

**Scalability:** Design the platform with scalability in mind to accommodate a growing number of artisans and customers.

### 1.4 Importance of this project: -

This artisanal e-commerce project is important because it helps crafters and artists from around the world. It gives them a chance to show their handmade products to a big audience. This means they can sell more and make a living doing what they love. At the same time, the project encourages creativity. It celebrates things made by hand, like jewelry and home decorations. It's also good for people who want to buy unique things that are not mass-produced.

For customers, it's a chance to find special, one-of-a-kind items. It also helps small businesses grow and make more money.

With the recent switch of emphasis of make in India products, the platform would be fruitful for helping the local artisans. Also, since individual artisans will be applying directly to sell their products they can benefit directly in terms of finance. Overall, the project helps crafters, supports small businesses, and makes customers happy. It's a win-win for everyone involved.

## **CHAPTER – 02**

### **DESIGN THINKING**

#### **2.1 Platform Design:**

Our website will be built, with sections for product categories, individual product pages, shopping carts, payment pages, and checkout pages. Our website will have a straightforward, user-friendly design.

#### **2.2 Product Showcase:**

To keep track of product details like pictures, descriptions, prices, and categories, we'll build a database. We feel comfortable using SQLite among the several databases available to accomplish this.

#### **2.3 User Authentication:**

A simplistic login/signup page will be created for user authentication. If the user is a new consumer or artisan, they must set up an account and can further continue. If the user is an existing artisan or client, they must login. The page will be easy to use and straightforward.

#### **2.4 Shopping cart and checkout:**

We will create an intuitive shopping cart page where users can see the number of items they intend to buy as well as a simple checkout page where the payment process will take place and be entirely safe.

#### **2.5 Payment Integration:**

A completely functional payment integration, similar to PayPal and others, will be created by us. The user experience will be easy to use and the transaction will be secure.

#### **2.6 User Experience:**

As already indicated, our main focus will be on delivering an easy-to-use and visually attractive user experience for both artisans and customers.

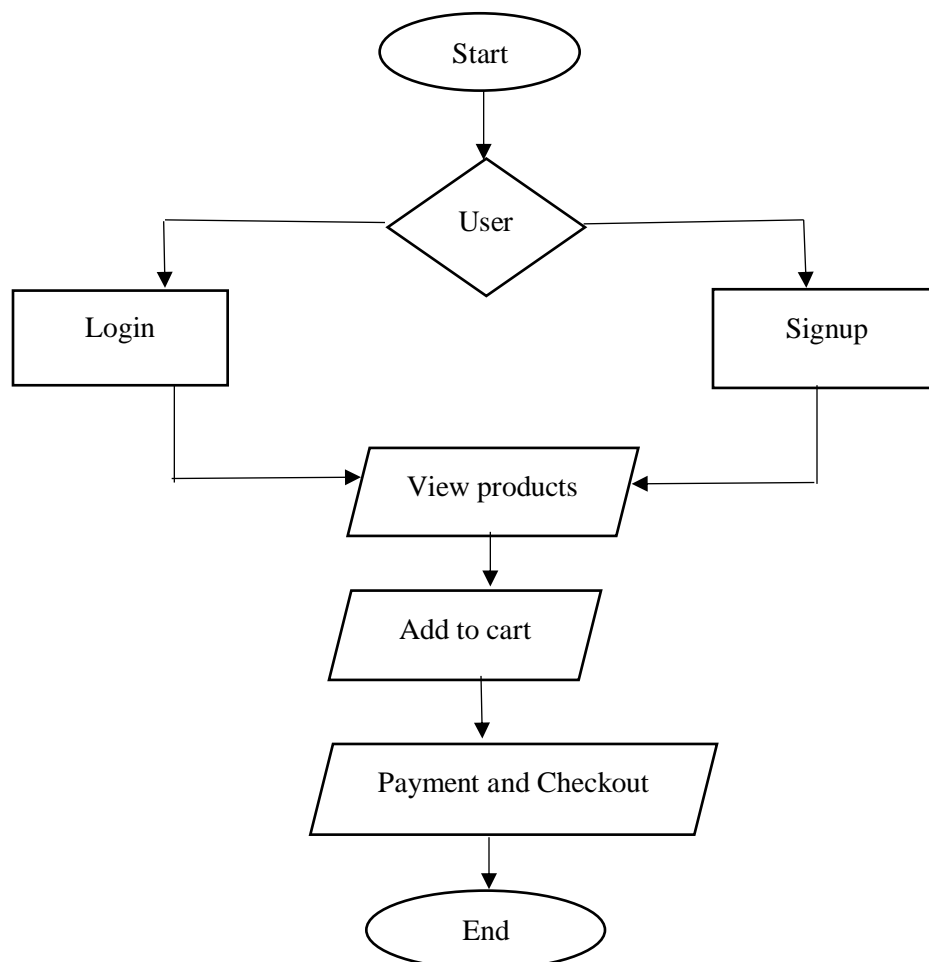
## CHAPTER – 03

### DESIGN AND IMPLEMENTATION.

In this project, we will be using Html, CSS, JavaScript, Bootstrap for entire Front-end works. Django will be used for backend part and it plays major roles by performing various conditions, functions. IBM cloud foundry is used for deployment of this website. In order to store data SQLite database is used.

To maintain security, a login or signup page will be displayed. Following that, the homepage will be shown, with the header section's components being product categories, a about page, and so on. As well as these additional features, checkout pages, Wishlist pages, and review sections will be included. This website serves as a link for customers and diverse craftspeople. Django will be used to integrate PayPal with secure payment gateways to speed up transactions. Finally, a database will be used to hold all of the data.

### 3.1 FLOWCHART:



## CHAPTER – 04

### REQUIREMENTS

- **Hardware:**

Pc/Laptop with:

I5 or above processor.

8GB RAM.

Hard Drive at least 100GB of ROM.

Windows/Mac/Linux.

- **Software:**

Browser (Google chrome recommended).

SQLite for Database.

Any Text Editor like Visual Studio Code.

- **Language used:**

**HTML**, **CSS**, **JavaScript**, and **Bootstrap** are used for e-commerce design. **HTML** structures content, **CSS** styles it, **JavaScript** adds interactivity, and **Bootstrap** offers pre-made design components for creating sleek and responsive online stores. These 4 will be used as a Front-end source for our site.

**IBM Cloud Foundry** offers a scalable and secure cloud environment to build online stores, ensuring high performance.

**Django** will be used for various conditions and functions. It is one of the major backend source.



## **CHAPTER – 05**

### **The Conclusion**

Our project to build an artisanal e-commerce platform on IBM Cloud Foundry is driven by a passion for supporting skilled artisans and celebrating their craftsmanship. By seamlessly connecting them with a global audience, we aim to not only showcase their unique handmade products but also provide the necessary tools for successful online sales. The secure shopping carts, reliable payment gateways, and intuitive checkout process are designed with user satisfaction in mind. This project represents an opportunity to nurture creativity, promote small businesses, and create a vibrant marketplace where artisans can thrive and share their talents with the world.