

## ACKNOWLEDGEMENT

First of all we would like to thank Prof. A.V.Gundavade who is presently working as a Assistant Professor of Computer Science and Engineering Department for guiding me through this seminar/project work. We are extremely grateful to her for all her invaluable guidance and kind suggestions during all the phases of my project work. Her ever encouraging attitude, guidance and whole hearted help were biggest motivation for me in completing this project work.

We are thankful to the founder Chairman Late Dr. J. J. Magdum and the Chairman Mr. Vijayraj J. Magdum of Dr. J. J. Magdum Trust, Jaysingpur, for their encouragement. We are very grateful to Campus Director Dr. S.S.Admuhe, Principal Dr. S.B.Patil of Dr. J. J. Magdum College of Engineering, Jaysingpur for motivating me for this project work. Also We are thankful to Prof. Dr.D.A.Nikam Head, Department of Computer Science and Engineering for providing necessary facilities for completion of this project work.

We are also thankful to Prof.P.S.Pathak for supporting me in completion of this project work. Lastly I thank all the persons who have guided and helped me directly or indirectly.

<i>Roll No</i>	<i>Name of Student</i>	<i>Signature</i>
32	Miss. Shraddha Rajendra Kore	
33	Miss Sonika hanmantrao mahind	
34	Mr. Takshak Vikram Desai	
35	Miss. Komal Dewdas Dhok	

## INDEX

SR.NO.	CHAPTER	PAGE NO.
1	Synopsis	
2	Introduction  2.1 Literature Review 2.1.1 Existing System 2.1.2 Propose System	3-6
3	Methodology  3.1 Problem Definition 3.2 Existing System 3.3 Proposed System 3.4 System Architecture 3.5 Techniques to be used 3.6 Diagrams 3.6.1 DFD (DFD, use case, Work Breakdown Structure)	7-11
4	Implementation tools & module developed	12-13
5	Future Work	14
6	Conclusion	15
7	References	16

## Figure Table

SR. NO.	FIG. NAME	PAGE NO.
a)	SystemArchitecture	
b)	Zero Level DFD	
c)	First Level DFD	
d)	Flowchart	

## **ABSTRACT**

"Online Sponsored Vaishnavi Jewellery Shop" is an innovative application program designed to revolutionize the way people discover and purchase the latest designs of jewellery across various categories such as Gold, Silver, and Diamond. By leveraging the power of technology, this platform aims to provide a seamless and convenient online shopping experience for customers. In today's digital age, traditional brick-and-mortar jewellery shops are increasingly transitioning to online platforms. With this application, the cumbersome administrative tasks associated with paperwork are eliminated as the system efficiently manages data in a digital format. The application is accessible through both desktop and mobile devices, ensuring convenience and accessibility for users.

By centralizing all registration activities, users have complete control over their shopping experience. They can easily browse through a wide range of jewellery options, view detailed product information, and make secure transactions online. The system also offers personalized recommendations based on user preferences, enhancing the overall shopping experience. One of the significant advantages of this application is its ability to generate various types of reports, such as PDFs and Excel sheets. These reports are crucial for the management team when organizing events or analyzing sales data. By providing these reports in digital formats, the application eliminates the need for manual data collection and processing, saving time and effort for the management.

Moreover, this application aims to streamline the process of managing transactions and historical data related to various gods and religious events. By automating these tasks, it reduces the manual effort required and ensures accuracy in record-keeping. The application also allows users to access information about upcoming events, providing them with a comprehensive overview of the jewellery offerings associated with specific occasions.

Overall, the "Online Sponsored Vaishnavi Jewellery Shop" application is a cutting-edge solution that empowers users to conveniently find and purchase their desired jewellery online. By leveraging technology, it simplifies administrative tasks, enhances the shopping experience, and provides valuable insights for event organization and data analysis. With its user-friendly interface and efficient functionality, this application sets a new standard in the world of online jewellery shopping.

## **Chapter 1: INTRODUCTION**

## **Introduction**

The proposed system aims to provide an online jewellery shopping solution to both consumers and vendors by automating basic operations of an online store. It will utilize a web application to provide essential functionalities, enabling the automation of manual processes. The system will offer administration access to vendors and admins, while customers will have their own user-specific access.

With the ability to access the application from any computer connected to the internet or intranet, users can enjoy the convenience of online jewellery shopping without the need for installing a standalone application. The application is specifically designed to efficiently manage inventory, ensuring proper check on specifications, and seamlessly handling tasks ranging from sales to accounting. By automating these processes, the proposed system aims to enhance job effectiveness and provide a comfortable experience for users.

While there are existing online jewellery shopping applications in the market, such as Tanishq, BlueStone, and Caratlane, the proposed system aims to offer similar functionalities. Buyers can easily place their jewellery orders with just a few clicks, eliminating the need to physically visit stores or take leave from their office. They can conveniently compare various designs, prices, and patterns of jewellery across different trading portals and websites.

The system is designed to assist in strategic planning by providing organizations with the necessary information and details for achieving future goals. It ensures that the organization is equipped with the right level of information to make informed decisions. Additionally, for busy executives who are frequently on the go, the system provides remote access features, allowing them to manage their workforce at any time and from anywhere.

In summary, the proposed system aims to provide an extensive online jewelry shopping solution by automating basic operations of an online store. It offers convenience, easy access, and a user-friendly experience to both consumers and vendors. By utilizing the system, buyers can efficiently purchase jewelry orders, compare options, and make informed decisions without the constraints of physical stores. For organizations, the system supports strategic planning by providing crucial information and ensures the ability to manage the workforce remotely, catering to the needs of busy executives.

## **Chapter 2: LITRATURE REVIEW**

## 2.1 Literature Review: -

The earrings store billing system is used to, Paperless billing machine offers corporations and corporations several blessings which include elevated work competence, productiveness, and statistics safety. They are lesson paintings and time, However, there are numerous agencies, especially small-scale agencies, that are nonetheless functioning underneath a paper middle milieu. It's far reduced time and great control of the machine, groups, paperless device consequences in ought to suggest closely reduced paintings and universal price slicing. This document incorporates of all of the related work and explains theworking of the machine to management of smart bill printing.[1]

**Limitations** – In each specific segment customer a are limited. So, it is not possible to produce products in mass scale for every segment.

### **Advantages -**

1. SMS invoice gadget.
2. Advanced control gadget for managing database3. Work and time saving gadget.

This paper has presented a Developing an augmented reality-based application to place virtual replicas of objects instead of real jewelry in jewelry shops. A virtual object is superimposed on some target that appears to be a real one. The user has to wear a marker (different for the corresponding item), and that particular item will be superimposed onto that. By utilizing ICP calculation, the recreation of 3D items is conceivable. The item will be overseen itself as indicated by the client continuously by utilizing HAAR. Payment integrations, user authentication, and order functionality have been integrated to make this app as competitive as other e-commerce applications.[2]

**Advantages:** -The biggest advantage of Augmented Reality is that it creates unique digital experiences that blend the best of digital and physical worlds. Also, it does not need any special hardware or software to savor the experience.

**Limitations:** -The limitations of augmented reality include bulky and expensive headsets with a limited field of view (FoV), security concerns when AR data is manipulated to influence worker decisions, a high and expensive learning curve to use, and a lack of truly precise spatial allocation systems for objects.

This is paper has presented a basically used to build an application program which help people to find and buy latest design of jewellery with different categories like Gold, Silver, Diamond. It is useful i the way that it makes an easier way to buy products online. Today most of the jewellery shop is useful for shopping site. The admin has lots of paper work and they are using desktop, spread sheet like MS Excel application to manage data in soft copy about user record. In this proposed jewellery System, it will run in server and user can handle whole the registration activities. It has facilities to generate various types of reports (like pdf, excel) which are required by the management during event organizing.[3]



**Advantages:** - Cost efficiency with cloud computing, you can save money that you may otherwise spend on buying, setting up and using hardware, software and other IT-related infrastructure. Enhanced collaboration Collaborating via the cloud allows you to communicate and share updated information promptly in just a few clicks.

According to the survey on Chatbot Implementation in Customer Service Industry through Deep Neural Network, the strategies for creating rules for chatbot have been advanced strategy for creating chatbots has depended on hand-written rules and templates. With the rise of deep learning these models were quickly replaced by an end-to-end neural network.[4]

**Advantages:-** made a chatbot in python that can understand user queries and reply accordingly.

**Limitations** -Lack of customer perspective in building the chatbot.

This thesis aimed at researching trends in software delivery as well as the underlying changes made by companies in order to enhance their technological capabilities and be a stronger competitor on the market. This research was implemented and documented under the strict supervision of the Vaimo Group. The research was done in a company that decided to apply a set of capabilities to a newly developed CI/CD pipeline based on the containerization technology. Description of the implemented and newly developed pipelines was provided to highlight capabilities of the new containerized software delivery pipeline.[5]

**Advantages: -**

1. Faster, better product delivery
2. Faster issue resolution and reduced
3. Complexity Greater
4. scalability and availability
5. More stable operating environments

Websites play an important role in connecting people in the digital age. Hosting a website on a worldwide scale necessitates numerous processes and upgrades. Many manual tasks were required behind the scenes of the website, which might be automated using devops. The primary goal of integrating DevOps is to seamlessly combine the development and operations environments. During the experimentation phase, the development and deployment process may appear simple. However, if not carefully designed, deploying and using such models can result in complicated and time-consuming approaches that require significant and expensive maintenance, improvement, and monitoring efforts. These efforts use the principles, practises, and tools of continuous integration (CI) and continuous delivery (CD) to reduce waste, support rapid feedback, uncover hidden technical debt, and improve value delivery and maintenance. CI and CD are abbreviations for continuous integration and continuous delivery.

**Limitations-** The goal of this project is to eliminate manual involvement and time consumption while shipping software from developers to clients, regardless of their geographic location. It makes no difference what kind of product is created; what counts is how quickly it reaches the customer.

## **Chapter 3 : METHODOLOGY**

## **Methodology**

- **System analysis / planning: -**

In this step business objectives are identified, in order for the project to have measurable targets and achievements. Also, some functionalities of the system that the system must produce in order to achieve the business objectives, are defined. It involves analyzing the requirements and needs of the business, understanding the existing processes, and defining the system's functionalities and architecture. Document the requirements, including functional requirements (e.g., product catalog, shopping cart, payment integration) and non-functional requirements (e.g., performance, security, scalability).

Analyse the existing processes involved in the jewellery business, such as inventory management, order processing, and customer management. Based on the gathered requirements, define the core functionalities and features of the e-commerce jewellery website. Determine the product catalog structure, including product categories, attributes, and variations. Define features like product search, sorting, filtering, and product recommendations. Specify the shopping cart functionality, including adding/removing items, quantity management, and discounts. Determine the checkout process, including payment integration, shipping options, and order confirmation.

- **System Design: -**

Determine the overall system architecture for the e-commerce website. Identify the components and their relationships, such as the frontend, backend, database, and third-party integrations. Define the technology stack, including React.js for the frontend, backend frameworks, and databases. Consider scalability, security, and performance requirements during the architectural design phase.

- **Testing the system: -**

Once the coding is complete the system has to be thoroughly tested. Unit testing involves the testing of the website's modules. System testing aims to test the site as a whole and ensure its functionality for the user. Acceptance testing is used to verify that the system meets the business objectives, that were defined in the system analysis phase.

Selenium is a popular open-source testing framework that can be used to automate testing processes in a jewelry e-commerce website. With Selenium, you can simulate user interactions, perform automated tests, and verify the functionality and performance of the website.

Selenium is a robust testing framework widely used for automating the testing of jewelry e-commerce websites. It provides a suite of tools and APIs that enable testers to simulate user interactions, validate functionalities, and ensure the smooth performance of the website. Selenium supports various programming languages such as Java, Python, and JavaScript, making it versatile and adaptable to different project requirements. With Selenium, testers can write test scripts to perform tasks like adding items to the cart, checking out, and verifying order processing.

It also allows for the validation of dynamic web elements, handling of pop-ups, and capturing screenshots for visual inspection. The suggested workflow for using Selenium in testing a jewelry e-commerce website typically involves identifying test scenarios and requirements, designing test cases, implementing test scripts, executing tests, and analyzing test results. By leveraging Selenium's capabilities, testers can efficiently validate the functionalities and user experience of the website, contributing to the overall quality and reliability of the e-commerce platform.

- **Implementation and Maintenance: -**

Implement the features and functionality outlined in the project requirements using React.js. This involves coding the frontend components, integrating APIs for data retrieval and processing, implementing user authentication and payment gateways, and ensuring the website is responsive and visually appealing. Monitor the website for any issues, bugs, or errors reported by users or identified through proactive monitoring. Respond promptly to fix bugs and address any technical issues that may arise. Regularly update the website to incorporate new features, security patches, and performance improvements. Maintain and update the product catalog, including adding new products, updating existing product information, and managing inventory levels. Ensure that product images, descriptions, and prices are accurate and up to date.

- **Optimization: -**

Performance optimization is crucial for a jewelry e-commerce website to deliver a seamless and engaging user experience. In the highly competitive online market, a fast and responsive website can significantly impact customer satisfaction, conversion rates, and overall business success. Performance optimization involves various techniques and strategies to enhance the website's speed, responsiveness, and efficiency. To optimize the performance of a jewelry e-commerce website, several measures can be implemented. First, minimizing the website's load time is essential. This can be achieved by optimizing images and using compression techniques to reduce file sizes without compromising quality. Implementing caching mechanisms, both on the server and client side, can also enhance performance by storing and delivering frequently accessed data and resources more efficiently.

Efficient code practices play a vital role in performance optimization. Minifying and bundling JavaScript and CSS files reduce their size, leading to faster downloads and rendering. Additionally, reducing the number of HTTP requests by combining multiple files into a single request can significantly improve loading speed. Implementing code splitting techniques, such as lazy loading, can further optimize performance by loading only the necessary components when needed.

Server-side optimization is equally important. Employing techniques like database indexing and query optimization can improve data retrieval and processing speed. Scaling the server infrastructure, utilizing content delivery networks (CDNs) for static assets, and implementing caching strategies on the server-side can distribute the load and enhance responsiveness.

Regular monitoring and analysis of website performance are essential for ongoing optimization. Use tools like Google PageSpeed Insights or Lighthouse to identify performance bottlenecks and receive recommendations for improvement. Analyze server logs, track website metrics, and leverage user behavior analytics to gain insights and identify areas for optimization.

Continuous performance testing is crucial to ensure the effectiveness of optimization efforts. Load testing, stress testing, and performance profiling help identify system limitations and bottlenecks under various conditions. By simulating high traffic scenarios, performance testing can uncover performance issues and allow for proactive optimization.

### ***3.1 Problem Definition***

To build an application program which help people to find and buy latest design of jewellery with different categories like Gold, Silver, Diamond.

### ***3.2 Existing System***

The existing system is a manual system. The proposed system tries to simplify the difficulties encountered in manually handling information about the member details, creditor details, purchase, sales and payments.

The existing system requires a number of records and takes a huge amount of time for the process completion. When we compare the existing system with the proposed system, there are many drawbacks for the existing system.

In the current system there is a chance of unauthorized access of data this may cause change in the original data and also loss of the data. These may result in bad assessment in the shop performance. The existing system, all calculations are done manually. For this purpose, the organization needs a person with well mathematical knowledge and also these manual calculations take more time and chance of error is very high. So, it cannot produce accurate results at every time. It is difficult to place an order to files, so searching of a file is also very difficult and it is a time-consuming process.

### ***3.3 Proposed System***

The proposed system for VAISHNAVI JEWELLERY overcomes most of the limitations of the present system. So, it is necessary to computerize the present system. Thus, we get a better control over the system and the new system ready to solve all the requirements of the user.

The structure and characteristics of different files were to be redesigned, eliminating all the limitations of the existing system and to make the system more efficient and user friendly. The proposed system is aimed to reduce the manual work, reduce storage space, reduce the number of employees, increase the speed of retrieval and produce more accurate result and also provides more security. The proposed system is very powerful and it is highly user friendly. It also prevents the unauthorized access to data.

In the proposed system, the data entry screens should be interactive in nature, so that the user can directly input data. The new system gives immediate response to the user by sending various messages after the major operations, thus the user can assure that the data is entered successfully. Thus, we get accurate results and also, we get the well formatted reports. The new system must include provisions for ordering the files. This makes access and searching records become very efficient.

The proposed system makes use of magnetic disk storage, which can store bulk amount of data within a limited space and will reduce pen and paper works. Thus, the proposed system has many advantages over the existing system, so computerized system is very necessary.

### 3.4 System Architecture

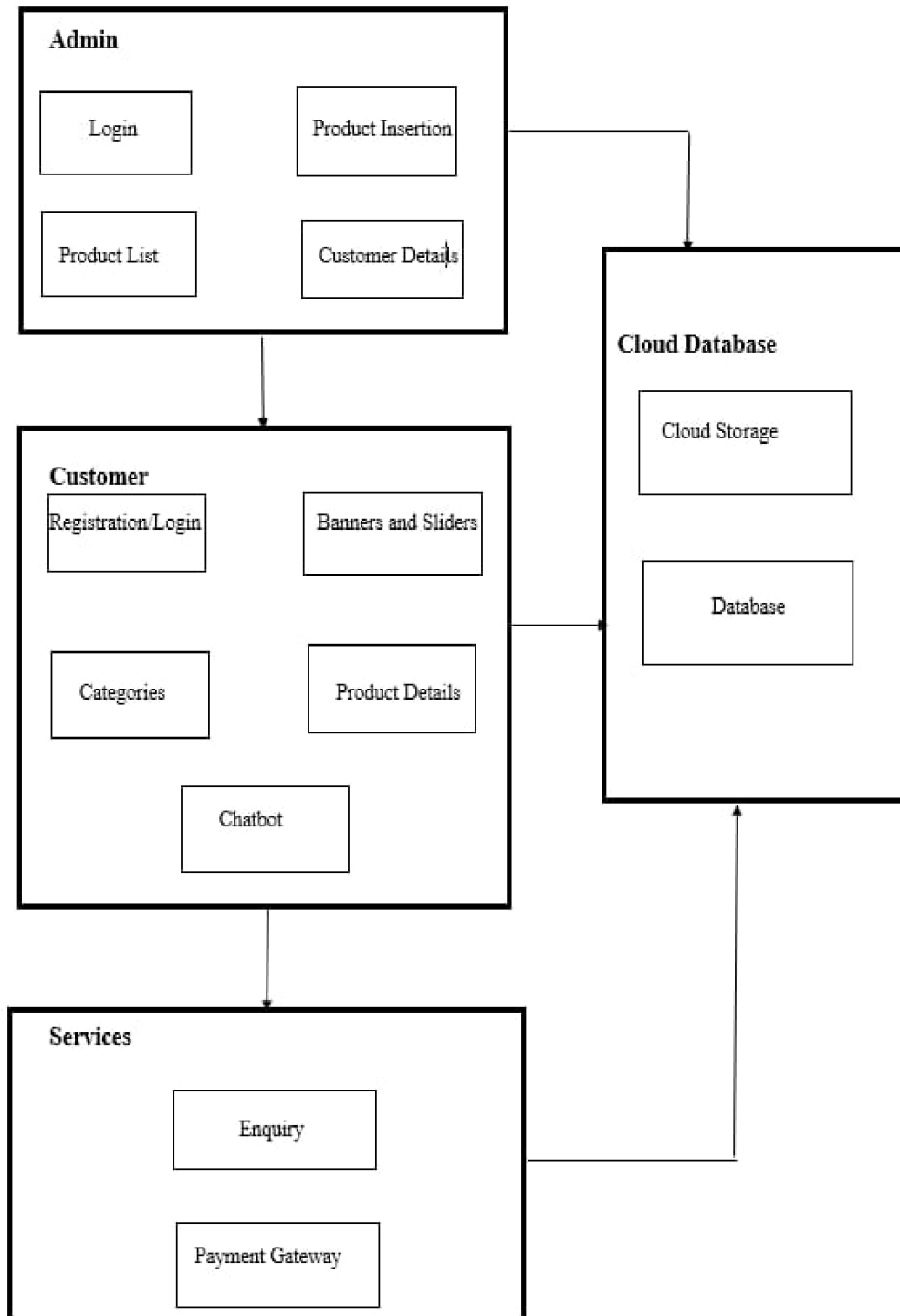


Fig. a) System Architecture

### ***3.5 Techniques to be used***

#### **1. Web Technology: -**

React framework can be used for building beautiful User Interfaces by implementing some core JavaScript features. It is easy to use and implement as it provides us with a mark-up syntax that is closely related to HTML. React is one of the most widely used frameworks that is being used by many developers for building applications or interfaces.

#### **2. Chatbot: -**

Chatbot is implemented to meet the requirement of the users. A chatbot can offer round-the-clock customer support, answering common inquiries and providing assistance even when human agents are not available. Chatbots can provide fashion advice and styling tips based on customer preferences, helping them select jewelry pieces that complement their outfits and personal style. Chatbots can direct customers to relevant sections of the website's

#### **3. DevOps: -**

The idea of DevOps is not to deny the existence of development experts and operation experts or to break down each team in one stroke and make it into one team. Rather, the experts will proceed towards the same goal and cooperate closely, recognizing each other's specialty areas as an expert. By doing so, one can accelerate business by practicing smoother development and operation.



### 3.6 Diagram

#### 3.6.1 DFD



Fig. b) Zero Level DFD

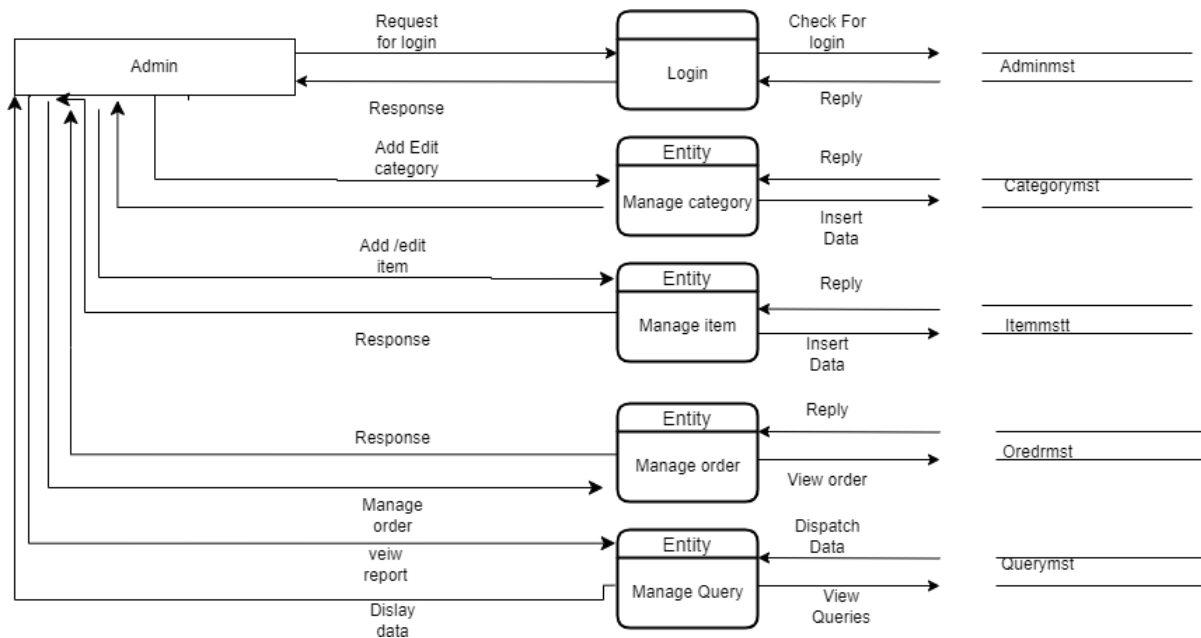


Fig. c) First Level DFD

### 3.6.2 Flowchart

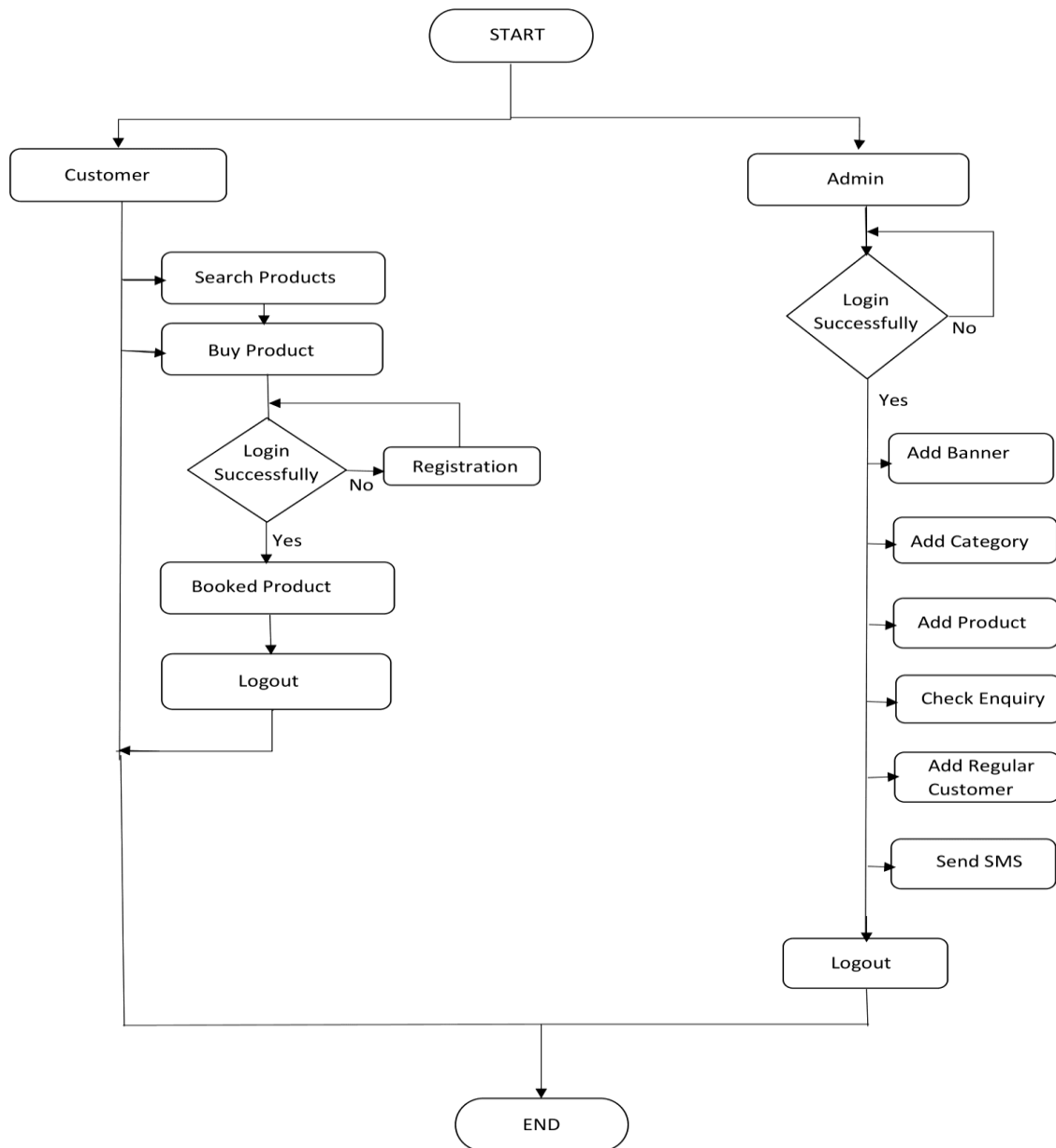


Fig. d) Flowchart

## **Chapter 4 : IMPLEMENTATION TOOLS & MODULE DEVELOPED**

## Implementation tools & module developed

### 1) React.js

React Js is a powerful framework for developing a robust and responsive e-commerce website for selling jewellery. With React.js, you can create a dynamic and engaging user interface that showcases the jewellery products beautifully. By leveraging React's component-based architecture, you can easily design and organize various components such as a product listing, product details, shopping cart, and checkout process. React's virtual DOM enables efficient rendering and updates, ensuring smooth user interactions and an enhanced shopping experience. You can integrate APIs to fetch jewellery product data, including images, descriptions, prices, and inventory status.

With React's state management libraries like Redux or React Context, you can handle complex state, such as managing the user's cart items and tracking their selections. Additionally, React's flexibility allows you to incorporate features like search functionality, filters for different jewellery types, and sorting options based on price or popularity. By applying CSS styling or using CSS frameworks, you can customize the look and feel of the website to reflect the elegance and luxury associated with jewellery. Overall, React.js provides a solid foundation for building a visually appealing and user-friendly e-commerce jewellery website.

### 2) Node.js: -

Node.js is a powerful runtime environment that allows you to build scalable and high-performance web applications, making it a great choice for an e-commerce jewelry website. With Node.js, you can develop a robust backend that handles various functionalities, such as inventory management, order processing, user authentication, and payment integration.

One advantage of using Node.js is its event-driven, non-blocking architecture, which allows for efficient handling of concurrent requests. This means that your e-commerce website can handle a large number of users simultaneously without experiencing performance bottlenecks. Node.js also offers a vast ecosystem of packages and modules through its package manager, npm. This allows you to easily integrate third-party libraries for features like image processing, email notifications, and social media sharing, enhancing the functionality of your jewelry website.

### 3) MYSQL database: -

MySQL is popular among all databases, and is ranked as the 2nd most popular database, only slightly trailing Oracle Database. Among open-source databases, MySQL is the most popular database in use today. Known as one of the most reliable and performative databases out there, it was named after its founder's daughter My, and is known for organizing data into one or more data tables in which data types are related to each other. These relationships help structure data, as SQL is a language programmers use for creation, modification and extraction of data from a relational database.

MySQL is a relational database that uses structured query language. Relational databases are a type of database that uses a structure that allows us to identify and access the data in relation to another piece of data inside of the database. This format is often organized as tables.

#### 4) DevOps: -

DevOps is the acronym given to the combination of Development and Operations. It refers to a collaborative approach to make the Application Development team and the IT Operations team of an organization to seamlessly work with better communication. It is a philosophy that encourages adopting iterative software development, automation, and programmable infrastructure deployment and maintenance.

DevOps emphasizes building trust and better liaisoning between developers and system administrators. This helps the organization in aligning technological projects to business requirements. Changes rolled out are usually small and reversible, which the entire team begins to comprehend.

##### 1. git hub: -

GitHub is a code hosting platform for version control and collaboration. It lets you and others work together on projects from anywhere. This tutorial teaches you GitHub essentials like repositories, branches, commits, and pull requests.

##### 2. AWS cloud: -

Amazon Web Services (AWS) is the world's most comprehensive and broadly adopted cloud platform, offering over 200 fully featured services from data centers globally. Amazon web service is an online platform that provides scalable and cost-effective cloud computing solutions. AWS is a broadly adopted cloud platform that offers several on-demand operations like compute power, database storage, content delivery, etc., to help corporates scale and grow.

##### 3. Docker: -

Docker is an open-source containerization platform. It enables developers to package applications into containers—standardized executable components combining application source code with the operating system (OS) libraries and dependencies required to run that code in any environment.

##### 4. Jenkins: -

Jenkins is an open-source automation tool written in Java with plugins built for continuous integration. Jenkins is used to build and test your software projects continuously making it easier for developers to integrate changes to the project, and making it easier for users to obtain a fresh build.

## **Chapter 5: FUTURE SCOPE**

## FUTURE SCOPE

AR is an experience that enhances elements of users physical world with computer-generated input. To do this ,the designer or developer creates a technology that allows users to superimpose content-images, texts, videos over a real world environment. How it works? The augmented reality application lets the customer explore the finest jewellery experience by projecting the real –looking impression.

The basic idea of augmented reality is to superimpose graphics, audio and other sensory enhancements over a real-world environment in real time. Sounds pretty simple. Besides, haven't television networks been doing that with graphics for decades? However, augmented reality is more advanced than any technology you've seen in television broadcasts, although some new TV effects come close, such as RACEf/x and the super-imposed first down line on televised U.S. football games, both created by Sportvision. But these systems display graphicsfor only one point of view. Next-generation augmented-reality systems will display graphics for each viewer's perspective.

Augmented reality still has some challenges to overcome. For instance, people may not want to rely on their smartphones, which often have small screens on which to superimpose information. For that reason, wearable devices like augmented-reality capable contact lenses and glasses will provide users with more convenient, expansive views of the world around them. Screen real estate will no longer be an issue. In the near future, you may be able to playa real-time strategy game on your computer, or you can invite a friend over, put on your AR glasses, and play on the tabletop in front of you.

### **Augmented reality in jewelleryPrecise Tracking**

Our face tracking algorithms detect a face and its features: mouth, eyes, nose, hair, neck, etc.The AR technology then allows real-time virtual try-on of jewelry, glasses, hats and more.

### **Realistic Representation**

Your products look realistic and fit perfectly thanks to our superb rendering engine. The technology transfers natural colors, texture, lighting and creates real-world object physics.The camera-based virtual try on experience visually corresponds to the real one.

### **Hand tracking**

Real-time 3D hand tracking allows for accurate placement of rings, bracelets, watches, andother objects. Users can move to see the products from different angles.

## **Chapter 6: CONCLUSION**



## **Conclusion**

This research review purpose is to implement best cutting-edge technologies to develop the web application. The online jewellery shop is online system, which enable customer to search the jewellery, buy the jewellery and user can gift the jewellery directly to the recipient. It makes the customer easy to get jewellery online instead of wasting a lot of time at the shop. The online jewellery shop developed to achieve maximum efficiency in shopping online and to reduce the time taken to purchase jewellery items. It is designed for people to shop online rather than searching for jewellery by visiting the shop. Customer can send a jewellery anywhere in Indore within 3-5 hours the day customer wants. It is designed for people to shop online rather than searching for jewellery by visiting the shop.

## **Chapter 7: REFERENCES**

## References

1. "E-commers using Jewellery Shop Application" Tejaswini D. Mali, Pranali P. Wathare, Moseena M. Mulla, Prof. S. B. Shendge. [https://www.google.com/url?sa=t&source=web&rct=j&url=https://www.irjet.net/archives/V7/i1/IRJET-V7I1202.pdf&ved=2ahUKEwiKndqnpH7AhWhSmwGHfzfCHsQFnoECBMQAQ&usg=AOvVaw1X\\_wpTXZRn\\_yzGBYFqVMY-2](https://www.google.com/url?sa=t&source=web&rct=j&url=https://www.irjet.net/archives/V7/i1/IRJET-V7I1202.pdf&ved=2ahUKEwiKndqnpH7AhWhSmwGHfzfCHsQFnoECBMQAQ&usg=AOvVaw1X_wpTXZRn_yzGBYFqVMY-2).
2. An Augmented Reality application for Shopping  
[https://www.google.com/url?sa=t&source=web&rct=j&url=https://www.researchgate.net/publication/353922651\\_An\\_Augmented\\_Reality\\_application\\_for\\_Jewelry\\_Shopping](https://www.google.com/url?sa=t&source=web&rct=j&url=https://www.researchgate.net/publication/353922651_An_Augmented_Reality_application_for_Jewelry_Shopping)
3. Sarthak Gupta 1, Monil Pahwa2, Prayant Gupta3 and Surinder Kaur4, \*, AngelesQuezada5, July2021.  
[https://www.researchgate.net/publication/353922651\\_An\\_Augmented\\_Reality\\_application\\_for\\_Jewelry\\_Shopping](https://www.researchgate.net/publication/353922651_An_Augmented_Reality_application_for_Jewelry_Shopping)
4. "Online Jewellery Shop Based on cloud", Pritam Bansiyal 1, Dr. Mohammad Tajmul2, April2022<https://ijsrem.com/download/online-jewellery-shop-based-on-cloud/>
5. Sweety Sahani, Sushmitha Mary "Chatbot Using Python  
<https://doi.org/10.22214/ijraset.2022.43045>
6. Title of Bachelor's thesis: DevOps in E-commerce softwaredevelopment Author: Roman Zakharenkov  
[https://www.google.com/url?sa=t&source=web&rct=j&url=https://www.theseus.fi/bitstream/handle/10024/171099/Zakharenkov\\_Roman.pdf%3Fsequence%3D2%26isAllowed%3Dy&ved=2ahUKEwjVnfrwq5H7AhWJT2wGHVf3BXUQFnoECBIQAQ&usg=AOvVaw3YRjrjVsXljzcqtV\\_xvgT35](https://www.google.com/url?sa=t&source=web&rct=j&url=https://www.theseus.fi/bitstream/handle/10024/171099/Zakharenkov_Roman.pdf%3Fsequence%3D2%26isAllowed%3Dy&ved=2ahUKEwjVnfrwq5H7AhWJT2wGHVf3BXUQFnoECBIQAQ&usg=AOvVaw3YRjrjVsXljzcqtV_xvgT35)