JEWEL HEAVEN

Final Year Project Proposal

Session 2020-2025

A project submitted in partial fulfilment of the

COMSATS University Degree

of

BS in Computer Science / Software Engineering (CUI)

Department of Computer Science

COMSATS University Islamabad, Lahore Campus

13 March 2024

Project Registration

Project ID (for office use)						
Type of project	[*] Traditional		[ ] Industrial		[ ] Continuing	
Nature of project	[*] **D**evelopment		[ ] **R**esearch		[ ] **R&D**	
Area of specialisation						

Project Group Members						
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(ii)						
(iii)						

Declaration: FYP group members have cleared all prerequisites courses For FYP-I as per their degree requirements.

For BS(Computer Science)

(CSC241 Object Oriented Programming, CSC291 Software Engineering Concepts, CSC371 Database Systems-I, HUM102 Report Writing Skills)

For BS(Software Engineering)

(CSC241 Object Oriented Programming, CSE291 Introduction to Software Engineering, CSC371 Database Systems-I , HUM102 Report Writing Skills)

Plagiarism Free Certificate

This is to certify that, I am MUHAMMAD SALMAN SALEEM S/D/o MUHAMMAD SALEEM, group leader of FYP under registration no CIIT/SP20-BCS-131/LHR at Computer Science Department, COMSATS Institute of Information Technology, Lahore. I declare that my FYP proposal is checked by my supervisor and the similarity index is 10% that is less than 20%, an acceptable limit by HEC. Report is attached herewith as Appendix A.

Date: March 07, 2024, Name of Group Leader: MUHAMMAD SALMAN SALEEM Signature: (signature)

Name of Supervisor: Dr. Abid Sohail Bhutta Sb. Co-Supervisor (if any):_____

Designation: Associate Professor, Computer Science   Designation: _____

Signature: _____   Signature: _____

Project Abstract

At our jewellery website, you can discover top quality of gold jewellery designs and accessories with ultimate convenience to ensure customers satisfaction and provides a platform where authenticity meets accessibility. We provide our customers with a curated selection of authentic gold jewellery sourced from trusted sellers and suppliers. You can dive into the world of beautiful crafts with just a few clicks, carefully checking out the many ready-made gold jewellery designs. But we provide the additional feature that there are also many jewellery design ideas in books on our website. You can choose from them to find the right piece for you. This makes us special that we make sure your ideas become reality. Through our easy chat feature, you can share your ideas to our production manager without any hassle. This system also allows you to share your own designs. It makes your jewellery truly yours. We're all about delighting you – join us and experience personalized craftsmanship like never before.

Introduction

The objective of the proposed project is to develop a customized jewelry website that provides customers with a curated selection of authentic gold jewelry sourced from trusted sellers and suppliers. This integrates authenticity with seamless accessibility. Now a days, Online shopping has become increasingly prevalent, so we prioritize both quality and convenience in the platform of jewelry retailing as there is growing demand for such platforms.

The main aim is to curate a diverse and authentic collection of gold jewelry designs sourced from trusted sellers and suppliers. We ensure the quality and authenticity of the products as offered on the platform because of establishing partnership with trusted sources.

Our project aims to enhance user customization by providing a wide range of designs and creative ideas. Customers can choose from the many designs we already have, or they can send us their ideas to create something special just for them. We also want to make it easy for customers to talk to us, so we have a chat feature where they can talk directly to the person responsible for their order. This ensures we understand exactly what they want and helps everything run smoothly.

The main objective of the project is to prioritize customer satisfaction. We want to exceed customer expectations at every step of their purchase journey. Whether they're looking around, customizing their order, purchasing it, or need help later, we want to make sure they're pleasantly surprised that their How good is the experience?

Success Criterion

The success criteria of a jewellery e-commerce website with feature of production accessibility can be defined based on the following factors:

- Customer satisfaction: Feedback surveys and reviews measure overall satisfaction levels that ensure consumers are happy with their shopping experience and product quality.
- Sales Performance: Evaluate sales performance metrics such as conversion rates, average order value, and repeat purchases to gauge the platform's effectiveness in driving revenue.

- Quality Assurance: This website ensures that all products meet high quality standards as mentioned and these products are sourced from trusted certified suppliers, reducing the risk of returns or complaints due to product defects or errors.
- Custom Engagement: This Website track engagement levels with customization features such as submitting personalized designs or communicating with the production department manager to ensure customers are actively using these options.
- Customer Retention: This website measures customers retention rates and analyse those factors that are contributing to customer loyalty like repeat purchases. This will ensure that the platform fosters long term relationships with customers.
- Responsiveness and accessibility: This website review customer service responsiveness and platform accessibility on various devices and browsers to ensure a smooth and easy shopping experience for all customers.
- Innovation and Product Differentiation: This website assesses the platform's innovation and differentiate itself from competitors by offering specific customization options, unique designs, or standout features that distinguish it in the market.
- Feedback Utilization: This website demonstrates the customer feedback for effectively utilization by implementing improvements and enhancements based on customer suggestions and preferences, this continuously enhancing the platform's value proposition.
- Brand Reputation and Trust: Monitor brand reputation indicators such as online reviews, social media sentiment, and brand mentions to ensure that the platform maintains a positive image and earns the trust of its target audience.
- Brand reputation and trust: This website monitors brand reputation by online reviews and social media sentiments, and make sure the platform mentions your brand in a positive light to maintain a favourable image and build trust with your target audience.

By consistently measuring and optimizing these criteria for success, the customized jewellery website can strive for excellence in delivering a superior shopping experience and achieving its business objectives.

Related work

There are already several Jewellery websites that have been developed and are available for use:

[1] Natural Diamonds – This website provides beautiful trending designs of diamond jewellery for ladies and on the other side, this is offering some articles for men.

[2] ELMWOOD'S – This website is showcasing very expensive and attractive designs of jewellery with facility to accommodate their clients by video link after scheduling an appointment. Clients can choose the design and discuss that design on video call they want. This store is in London.

[3] CAPSUL – This website is offering international delivery to their clients of available trending designs, but it does not allow customer designs for production.

[4] TAIBA – This Dubai Jewellery website is offering international delivery to their clients of available trending designs, but their production department can only work for their selected designs.

[5] WORLD GOLD COUNCIL – This website gives us stock rates and trend updates for Gold. This is offering their clients to invest in Gold.

[6] WASEEM JEWELLER – This website have products of sale purchase options for diamond and Gold jewellery products with some accessories for men and it's physical store is in Lahore.

Project Rationale

Describe the purpose, motivation, or relevance of the project. Describes why the problem is important. You must convey why you want to take this project and what you hoped to learn from your research/development.

Aims and Objectives

Aims:

- Develop a customized jewellery website focusing on authenticity and accessibility.
- Offer customers a curated selection of authentic gold jewellery.
- Source products from trusted sellers and suppliers to ensure quality and reliability.
- Create a seamless browsing and purchasing experience for customers.
- Provide a platform where customers can easily find and buy the gold jewellery they want.
- Ensure transparency and trust in all transactions and product offerings on our website.

Objectives:

- Partner with trusted sources to produce a diverse and authentic collection of gold jewellery designs, ensuring the quality and authenticity of the products offered on our platform.
- Integrate a comprehensive library of designs and ideas to give customers the flexibility to choose from ready-made designs or submit their own designs for personalized experience.
- Chat feature allows users to engage directly with the production department manager, facilitating seamless communication and accurate delivery of unique ideas and preferences.
- Go beyond to meet customer expectations at every stage of the purchase journey, from browsing and customization to purchase and after-sales support.

Scope of the Project

- User-friendly website interface development involves designing and building an intuitive, easily navigated, and visually appealing platform for smooth browsing and shopping.
- Establishing partnerships with trusted vendors and suppliers ensures the reliability and quality of the products offered on the website through unity with trusted sources.
- Implementation of customization options, including customer design submission, allows for personalized creations or ideas by choosing from pre-made designs or submitting unique designs or ideas.
- Easy chat feature gives access to customers to communicate with production department members and manager to share their ideas.
- Ensures quality assurance by following quality control measures and verification procedures to guarantee the authenticity and all gold jewellery designs offered on the website.
- Continuous improvement and support for customer satisfaction entails ongoing enhancement of the website interface, services, and customer support to ensure a positive shopping experience and foster long-term customer satisfaction and loyalty.
- This website fosters long term customer loyalty and satisfaction by our website interface and services. Customer support ensures a positive shopping experience.

Proposed Methodology and Architecture

Proposed Methodology and Architecture for jewellery website.

Methodology

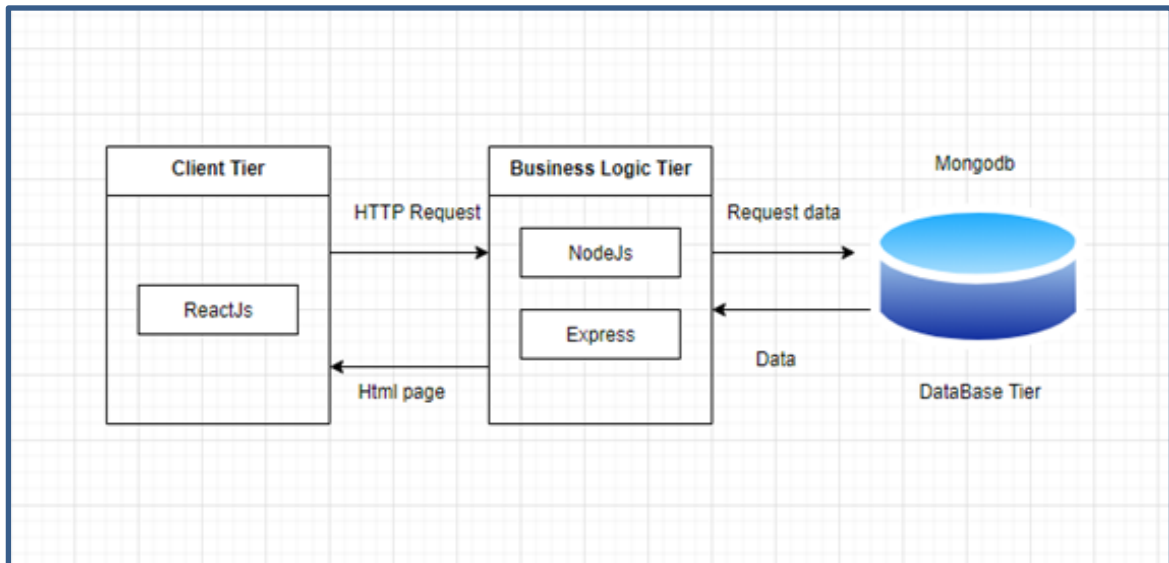Sample Methodology for Jewellery Website Development:

- *Requirement Analysis:*

  The first step is to gather the requirements of the website from the users and stakeholders. This includes the features and functionalities that the website should have.

- *Design:*

  Based on the requirements, a design of the website is created. This includes the user interface design and the architecture of the website.

- *Development:*

  After design complement, next step to building the website using the selected programming language and framework.

- *Testing:*

  The website is tested for bugs, errors, and performance issues.

- *Deployment:*

  Last step to deploy the website on a reliable hosting platform, ensuring high availability and security.

Architecture

- *Front-end:*

  The user interface of our website shows beautiful design for browsing products, viewing jewellery designs books and interaction with customization options.

- *Back-end:*

  The back end of the website includes server and database infrastructure, customer data management, inventory, and order processing. It also includes APIs to facilitate communication with production managers and our production team members for custom design requests.

- *Inventory Management:*

  The website updates product listing in real-time to track product availability in inventory management system and manage stock levels.

- *User Security and Authentication:*

  Ensuring user data security like to safe personal information and transactions, the website implements encryption protocols and robust authentication methods.
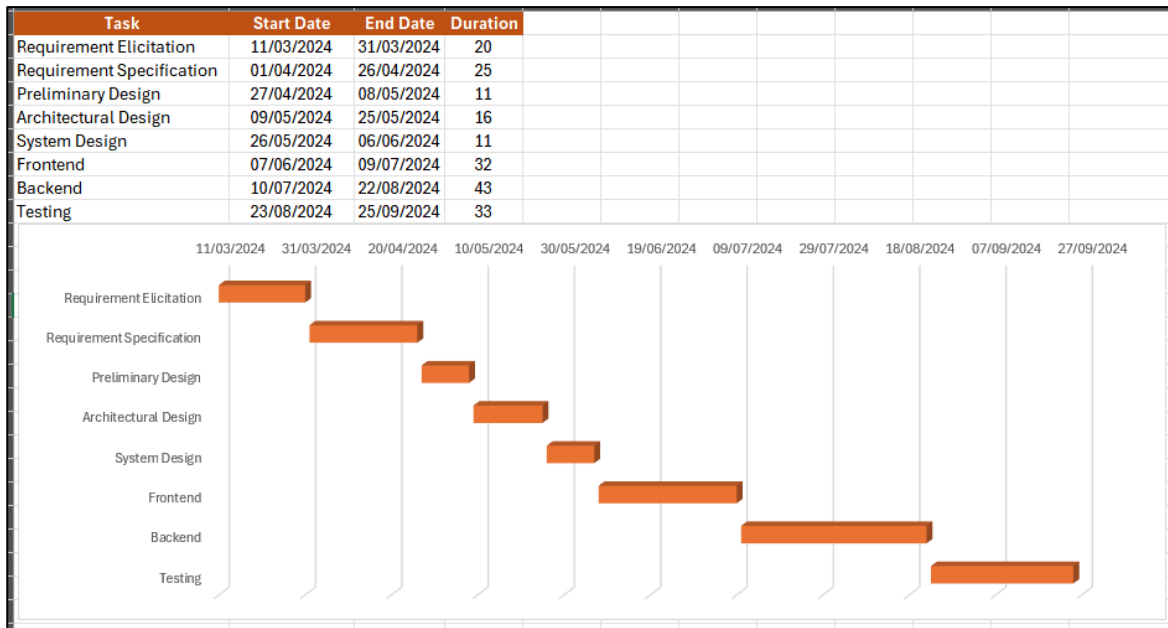
- *Communication:*

  Easy chat features in our website allows costumers to communicate with our production team members and manager to share their ideas and design for their selected product order.

Individual Tasks

I am working on my FYP project individually.

Gantt Chart

Task	Start Date	End Date	Duration
Requirement Elicitation	11/03/2024	31/03/2024	20
Requirement Specification	01/04/2024	26/04/2024	25
Preliminary Design	27/04/2024	08/05/2024	11
Architectural Design	09/05/2024	25/05/2024	16
System Design	26/05/2024	06/06/2024	11
Frontend	07/06/2024	09/07/2024	32
Backend	10/07/2024	22/08/2024	43
Testing	23/08/2024	25/09/2024	33

Tools and Technologies

Technologies

Programming Languages: We can use programming languages for developing our website front-end such as HTML, CSS, Tailwind CSS, JavaScript and we use Python, Ruby, Node.js for back-end development.

Frameworks: We can use JavaScript framework like React.js to build website's user interface. For back-end development of our website we can use Django (Python), Express.js (Node.js) to manage the website's functionality.

API's: We can use API's (JazzCash, Easypaisa, HBL Payment Gateway, MCB Lite, Stripe) to manage our payment gateway. For SMS notifications, we use Twilio API. For communicating by email, we use SendGrid API. For enabling social media engagement features, we use Facebook Graph API and Twitter API into our website.

Databases: We can use databases such as MySQL, PostgreSQL, or MongoDB to store and manage the website's data.

Authentication and Security: We can use industry-standard methods such as JSON Web Tokens (JWT) and OAuth for authentication.

Tools

Visual Studio Code	IDE
Postman	Api testing tool
Github	Source Code
MongoDBCompass	Database connection
Microsoft Visio	Modeling tool
Microsoft Word	Documentation tool

References

[1]   "Natural Diamonds," [Online]. Available: https://www.naturaldiamonds.com/in/mens-jewellery/.

[2]   "ELMWOOD'S," ELMWOOD'S, 2024. [Online]. Available: https://www.elmwoods.co.uk/?gad_source=1&gclid=CjwKCAjw17qvBhBrEiwA1rU9w7B1YyrPXunrrWCPWgOADy342LKWRCtjjXjyQIZ7ruWDKek6BPlxJxoCT9MQAvD_BwE.

[3]   CAPSUL, "CAPSUL," [Online]. Available: https://capsuljewelry.com/pages/shipping-returns-1.

[4]   "Taiba," Taiba, [Online]. Available: https://taiba.ae/.

[5]   W. G. Council, "World Gold Council," [Online]. Available: https://www.gold.org/.

[6]   "WASEEM JEWELLER," [Online]. Available: https://www.waseemjewellers.com/.

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