Craftopia

## **Project objectives**

1. Engage Users with a User-Friendly Interface

* Developed a responsive and visually appealing front-end using HTML, CSS, and JavaScript. The interface includes a streamlined navigation bar, a well-structured main menu, and consistent design elements across all pages to ensure ease of use and accessibility.

1. Promote Sustainable and Eco-Friendly Crafting Practices

* Incorporated content and product descriptions that emphasise sustainable practices. A dedicated section for eco-friendly products was created, along with filters to sort items by sustainability criteria. Information on the sustainable materials and processes used by artisans was highlighted.

1. Build a Strong Online Community and Presence

* Integrated social media sharing features and a forum for users to share their shopping reviews. User accounts were implemented to allow for personalised experiences and tracking of community participation.

## Features Implemented

* Main Menu and Navigation Bar: A comprehensive structure including Home, About Us, Contact Us, Cart, Login, Our Shop, Collections, Gifts, Kitchen, Jewellery, Outdoor, and Bedroom.
* Responsive Design: Implemented media queries to ensure the website is visually appealing and functional on both mobile and desktop devices.
* User Accounts and Authentication: Secure systems for user registration, login, and profile management.
* Product Listings and Filters: Category-based product listings with advanced filtering options, allowing users to sort products by price, material, artisan, and other criteria.
* Advanced Filtering and Search: A robust search engine and granular filters enhance product discovery, helping users quickly find specific items.
* Shopping Cart and Checkout: A fully functional cart that includes product management and a smooth checkout process.
* Customer Reviews: A feature that enables customers to leave feedback and rate products, which helps build trust and provide valuable insights into product quality and user satisfaction.

## Features Planned but Not Implemented

* Loyalty Program: A rewards system for frequent buyers, aimed at encouraging repeat purchases and building customer loyalty. This feature was postponed due to time constraints and is planned for a future phase.
* Enhanced Analytics and Reporting: Advanced analytics for tracking user behavior, sales metrics, and other key performance indicators. The data would be used to optimize the user experience and improve marketing strategies.
* Mobile Application Development: A companion mobile app to provide a more seamless and accessible shopping experience. This would include push notifications for promotions, new product alerts, and order status updates.
* Augmented Reality (AR) for Product Visualization: A feature to allow users to visualize products in their own space using AR technology. This would help users make informed purchasing decisions, especially for decor items.
* Improve User Support and Customer Service: Implement a live chat feature, a comprehensive FAQ section, and a dedicated customer support team.

## Potential Improvements

## Expanded Payment Options: Support for additional payment gateways, including international options such as cryptocurrencies, digital wallets, and localized payment methods.

* Improved Personalization: Implementation of machine learning algorithms for personalized product recommendations based on user behaviour, preferences, and purchase history.
* SEO and Performance Optimization: This involves further optimizing the website for search engines and performance improvements, such as faster loading times and reduced bounce rates.
* Enhanced User Engagement: Adding gamification elements like badges, achievements, and leaderboards to encourage user interaction and community building.

## Framework and Technologies Adopted

* Front-End:
  + HTML, CSS, JavaScript: Core technologies for building the website's structure, styling, and interactivity.
  + AJAX: Used for asynchronous communication with the server, enabling smooth user experiences by allowing data fetching and form submission without page reloads.
  + Figma: Used for designing mock-ups and visual planning.
* Back-End:
  + PHP: Server-side scripting for dynamic web page generation.
  + MySQL: Relational database management for storing and managing data.
* Tools:
  + Visual Studio Code: The primary IDE for development.
  + GitHub: Version control and collaboration platform.
  + Draw.io: Used for creating wireframes and sitemaps.

## Team Review on Individual Contributions

* Lydia: Set up and managed the [GitHub repository](https://github.com/lydia-karungi/craftopia), ensuring smooth collaboration among team members. Lydia played a pivotal role in setting up the development environment and configuring essential tools. She was responsible for the database setup and creation, ensuring that the database schema was properly structured and optimised for performance. Additionally, Lydia contributed to both front-end and back-end code. She was also actively involved in testing, ensuring that the implemented features met the project requirements and worked seamlessly.
* Brenda: Contributed significantly to the implementation of front-end features and participated in thorough testing to ensure the website's functionality and usability. She was also heavily involved in data entry, adding relevant data to the database tables and assisting in setting up the database infrastructure. Furthermore, Brenda contributed to both front-end and back-end code, particularly in integrating the database with the application. Her efforts in testing were crucial in identifying and resolving issues, ensuring a smooth user experience.
* Glenys: Led the design team, taking charge of creating the main wireframes and overall visual design of the front-end. Glenys was instrumental in defining the aesthetic and user experience (UX) aspects of the website. She specifically worked on the "Contact Us" page, ensuring it was visually appealing and user-friendly. Her contributions greatly enhanced the website's interface, making it engaging and easy to navigate. Glenys also participated in the testing phase, focusing on UI/UX elements to ensure visual and functional consistency.
* Chyndee: Focused on the front-end implementation of the "About Us" page, creating a compelling and informative section that highlights the team's vision and mission. She was also in charge of all the content on the website, including the text, ensuring consistency and accuracy across all pages. Her work was integral in delivering a consistent and engaging narrative throughout the website's informational sections. Chyndee was actively involved in testing, particularly in validating content accuracy and the overall responsiveness of the pages she developed.
* **Sasi**: Played a key role in project management, coordinating tasks and ensuring deadlines were met. Sasi developed the Gantt chart to track project progress and milestones. He also helped in acquiring and resizing product images and other visuals for the site, ensuring they were optimized for web use. Additionally, Sasi participated in the testing process, focusing on verifying the correct display and functionality of images and other media elements.

## **Project schedule**

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| WEEK | TASK | DESCRIPTION | RESPONSIBILITIES |
| Week | Forming groups and project planning | Assign group members and roles. Project Idea brainstorming | All team members are expected to participate |
| Week 3 | Research and Inspiration | Gather requirements, research about current crafts market and collect design inspiration | All team members are expected to conduct their research |
| Week4 | Describe project objectives, scope, timeline and documentation | Brainstorm on the various objectives, target users, schedule, wireframes, site map and gantt chart | * All team will brainstorm on the objectives, target users and schedule * 3 wireframes needed, Glenys, Chyndee and Sasi will create one each * Lydia will work on the site map * Brenda will work on the Gantt chart |
| Week 5 | Create presentation slides | Create slides for our initial idea and concept presentation in the next lecture | Each team member will create a slide in powerpoint for the section they will be present |
| Week 6 | Initial Design Mockups | Create initial wireframes and mockups | * Each team member will receive equal number of screen to design on the mobile and desktop * All team members are expected to provide feedback |
| Finalise design | Based off the feedback provides by the team members, improvements will be made | All team members will approve the final design |
| Setup development environment | Create a github repository, development tools and environment | Lydia will create the github repository and invite the rest of the team members All members will setup/install all required tools on their laptops |
| Week 7 | Develop Backend and Frontend | * Start on developing the backend infrastructure and database * Start on developing the frontend components and website layout | All team members will receive both a backend and frontend task |
| Testing and debugging | * Conduct thorough testing and debugging of the web site * Conduct code quality checks | All team members will conduct testing |
| Week 8 | Final adjustments and polishing | * Make any final adjustments, polish the website and prepare to submit | All team members will assisting in making final adjustments |
| Week 9 | Final project report | * Discuss which sections we want in the report * Create a usability manual | All team members will be part of the report writing |
| Week 10 | Hosting and Submission | * Choose a hosting option and upload the website | As a team we shall discuss which hosting service to choose |
| Week 11 | Final project presentation | * Create a powerpoint presentation | All team members will participate in the presentation |

## Project Setup Instructions

* Clone the Repository: Clone the project from [GitHub](https://github.com/lydia-karungi/craftopia) using
  + git clone [git@github.com:lydia-karungi/craftopia.git](mailto:git@github.com:lydia-karungi/craftopia.git)
* Navigate to the Project Directory: Move into the project directory where the codebase is located.
  + cd craftopia
* Install Dependencies:
  + Python: Install required Python packages using pip with the requirements.txt file. pip install -r requirements.txt
* Front-End: Install JavaScript dependencies using npm.
  + npm install
* Back-End: Use Composer to install PHP dependencies.
  + composer install
* Database Setup:
  + Start MySQL Service: Ensure MySQL is running by starting the service using brew services start mysql
  + If MySQL is already running and needs to be restarted, use:

brew services restart mysql

* Import Database Schema: Import the provided SQL file into MySQL to set up the database schema(or just import in MySQL workbench).

mysql -u root -p < Dump20240802.sql

* Environment Configuration: Set up environment variables for database connections. Create a .env file and put the share credentials
* Run the Development Server:
* PHP Server: Start the PHP built-in server to host the application locally.

php -S localhost:8000

* Navigate to http://localhost:8000 in your web browser to view the application.
* Testing and Verification: Perform thorough testing to ensure all components are working correctly. Verify database connections, form submissions, and other critical features.