Project Proposal: Colour Mixing Department Database and Management System

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# 1. Introduction

The Colour Mixing Department at [Company Name] manages a wide variety of custom colours and their associated mixing formulas. At present, much of this information is recorded manually, which poses risks of data loss, inconsistencies, and inefficiencies. This project proposes the development of a web-based database system to organize and digitize this process.  
  
The solution includes a MySQL database, a user-friendly PHP interface, and forms for data entry, editing, and searching. This will streamline the process, increase data accessibility, and support production and quality control processes.

# 2. Objectives

- To build a relational database for managing custom colour data and their mixing components.

- To enable fast and accurate colour searches.

- To allow department staff to add, update, and retrieve colour data through a simple web interface.

- To improve traceability, data accuracy, and operational efficiency.

# 3. Project Scope

- Design and develop a database with tables for custom colours and mixing colours.  
- Web-based forms for:  
 - Adding new custom colours and mixing colours.  
 - Editing and updating records.  
 - Searching for specific custom colours and viewing full details.  
- Validation checks to ensure correct and complete data entry.  
- Admin view to monitor and manage all records.

# 4. Technology Stack

- Backend: PHP (using XAMPP environment)

- Frontend: HTML, CSS (Bootstrap optional for design)

- Database: MySQL

- Local Server: XAMPP (localhost)

# 5. System Components

- custom\_colours table: stores the name, code, and usage details of each custom colour.  
- mixing\_colours table: stores all base colours used to create a custom colour, linked by a foreign key (custom\_colour\_id).  
- db\_connect.php: reusable file to handle database connection.  
- Forms for data entry, editing, and searching.

# 6. Timeline

The entire system was designed, developed, and tested within a 1-week period. This includes initial requirement gathering, front-end design, back-end development, database integration, testing, and deployment.

# 7. Expected Outcomes

- Centralized and searchable colour formula records

- Time saved in looking up colour mixing details

- Better tracking of colour use across products

- Cleaner, more efficient data entry process

- Foundation for future integration with production systems

# 8. Conclusion

This project will help the Colour Mixing Department move from manual logs to a digital system, enhancing productivity, accuracy, and data management. With a structured and user-friendly interface, staff can focus more on their core work while the system handles data organization.

# 9. References

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