DIM – Digital Ink Market
(Project Proposal)

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1. Abstract

In this era of technological advancements, all types of businesses are rapidly moving towards web-based platforms. The field of designing and printing is also shifting from local business to online marketplace, and there are multiple platforms separately available for designing, editing, printing, and freelancing services for designers. But the system being proposed will be a unified system for all printing and designing related needs, where users can create designs, hire designers and buy custom-printed products from different vendors.

2. Project Scope

DIM – Digital Ink Market will be a web-based application that will provide printing and designing services on a unified platform. It will be used by customers, graphic designers and printing vendors. This platform will serve as an online marketplace for printing and graphic designing related businesses.

A user can sign up on this platform as customer, to search and buy custom-printed products such as printed T-shirts, Coffee Mugs, Key-chains, Office items etc. from multiple printing vendors. User can also buy design artwork of different designers on this platform. The customer can select any product or design to get the complete description about it and can buy the product or design by making an online payment using credit card.

In addition to buying products or designs, a user can also register himself as a vendor or designer to start providing his services on this platform. The user will be able to switch between his different roles. The printing vendors will be able to list different types of printed products and the designers will be able to upload and sell their artwork using this platform.

The printed products on this platform can either be customizable or non-customizable printed product. In case of customizable printed product the system will allow the customer to upload or select previously saved images that will be printed on the selected product.

Before placing an order, the user will also be able to preview 3D model of selected

customizable printed product with its selected/uploaded images applied on it.

The system will also provide a design maker tool that will facilitate the users to create a new designs from scratch or by customizing existing available design templates. Created designs will be saved in the user profile.

3. Technologies Used:

Front-End

- NextJS

- Tailwind + DaisyUI   (For Styling and UI)

- Redux Toolkit   (For State Management)

- FabricJS Library   (For Developing Design Maker Tool)

- ThreeJS Library   (For 3D Model Preview)

Back-End

- NodeJS + Express   (APIs + Server)

- MondoDB   (As Database)

- Twillio   (For 2-Factor Authentication)

- Stripe   (For Payment Processing)