

Annexure I (For Project Proposal for FSE)

1. **Project Statement:**

Modern systems are becoming increasingly necessary in the quickly changing auction business to improve user experiences, accelerate processes, and guarantee safe transactions. Numerous systems in use today are still antiquated, which results in inefficiencies and a poor auction process. Modern auction bidding platform Palette was created especially for the art industry and is transforming the way that artworks are displayed, bid on, and sold.

Palette offers a scalable, safe, and user-friendly interface based on MERN stack. A dynamic bidding mechanism that selects winners based on the highest bid, an admin dashboard for controlling user accounts and monitoring operations, and an immersive 3D gallery for showcasing galleries in breathtaking detail are some of the main features. An integrated AI-powered chatbot offers both buyers and sellers immediate assistance, and sellers may submit their products for auction with ease. Palette integrates a secure payment gateway that accepts a variety of payment methods to guarantee hassle-free and safe transactions, giving buyers and sellers peace of mind.

Art auctions are reinvented with Palette, enabling auctioneers, artists, and collectors to engage in a simplified and entertaining process. With its innovative technology, easy payment options, and classic attraction of fine art, the site aims to completely transform the art auction experience.

1. **Approximate duration (in hours) to complete the project:**

|  |  |  |
| --- | --- | --- |
| Planning and Design | 1-2weeks | 12 hours |
| Setup and Environment Configuration | 1 week | 6 hours |
| Backend Development | 2-4weeks | 21 hours |
| Frontend Development | 3-5weeks | 28 hours |
| Testing | 1-2weeks | 9 hours |
| Deployment | 1 week | 7 hours |
| Post-Launch | 1-2weeks | 10 hours |
| **Total Estimated Duration** | 10-17weeks | 100 hours |



1. **Proposed Project In charge:** Mr.Reshab Kumar
2. **Team Members along with roll no’s:**

a. 2210991212-Akanksha Chopra

b. 2210991220-Akriti

c. 2210991258-Ananya Gupta

1. **Check Points:** 
   1. **Does the project statement result in a product? If yes, what type of product?**

Yes, a product is the outcome of the project statement. Palette is a sophisticated platform for auctioning and bidding on artwork. Features like real-time bidding, secure payment processing, seller listing administration, user account monitoring, and immersive 3D artwork galleries are all made possible by this software solution, which improves the eBay experience.

* 1. **If it is a product, can a prototype be made, if not, what is it, which we can produce that our teachers can evaluate.**

Yes, a prototype can be made. The prototype will be a functional version of the **Palette** platform, showcasing core features such as 3D artwork galleries, a dynamic bidding system, user and seller account management, secure payment integration, and an AI-powered chatbot. This prototype will provide a practical demonstration for evaluation by your professors.

* 1. **Does the project statement use multiple concepts to achieve the outcome? (yes/no)**

Yes. To accomplish its goals, the project uses a variety of ideas, such as database administration, real-time data processing, front-end and back-end programming, secure payment gateway integration, user interface/experience design, and 3D rendering, to accomplish its objectives.

* 1. **Does it have enough for our team members to do sufficient amount of work? (yes / no)**

Yes. All members of the team have ample of work to do on the project. Among the tasks are front-end design and development, back-end API development, database administration and setup, real-time bidding, payment gateway implementation, 3D gallery integration, and quality assurance testing. Every team member will be able to contribute significantly thanks to this.



1. **Technical Nodes**

Subject/Area/Topic Technical Nodes

|  |  |
| --- | --- |
| User Interface(UI) Design | Tools: Figma |
| User Experience(UX)Research | Methods: Surveys, Observation |
| Front-End Development | JavaScript Frameworks/Libraries: React |
| Back-End Development | Server-side Language: Node.js etc. Database: MongoDB etc. |

1. **Prerequisites (in terms of knowledge, concepts and material) for doing the Project:**

|  |  |
| --- | --- |
| Category | Prerequisites |
| Technical Knowledge | - MERN Stack Proficiency: MongoDB, Express.js, React.js, Node.js |
|  | - Database Management: Designing and managing databases using MongoDB |
|  | - Frontend Development: HTML, CSS, JavaScript, React.js |
|  | - Backend Development: Node.js, Express.js |
|  | - API Development: Creating and consuming RESTful APIs |
|  | - Authentication and Authorization: Secure user authentication and role-based access control |
|  | - Data Security: Data encryption and secure data storage |
| Concepts | - Art Marketplace Domain Knowledge: Understanding the workflow |
|  | - Project Management: Task allocation, version control (Git) |
|  | - Software Development Life Cycle (SDLC): Requirement analysis, design, development, testing, deployment |
|  | - UX/UI Design: User experience and interface design principles |
| Materials and Tools | - Development Environment: Visual Studio Code or other IDEs supporting MERN stack |
|  | - Version Control System: Git, GitHub, or GitLab |
|  | - Database Hosting: MongoDB Atlas or similar cloud-based solutions |
|  |  |
|  | - Design Tools: Wireframe and prototype design tools (e.g., Figma, Adobe XD) |
|  | - Documentation Resources: MERN stack and relevant technology documentation |
|  | - Collaboration Tools: Communication and project management tools (e.g., Slack, Microsoft Teams, Trello) |



1. **Material that may be required to make the project and where it might be available**

## Hardware:

Computers or laptops for development

## Software:

* Code Editors: VisualStudio Code
* Version Control: Git
* Design Tools: Figma
* Frontend Libraries: React.js, HTML, CSS and JavaScript
* Backend Frameworks: Node.js, Express.js
* API Development Tools: Postman
* Authentication Libraries: JWT
* Database: MongoDB
* Documentation Resources: Official documentation for MongoDB, React.js, Node.js, Express.js
* Web Hosting Service: Vercel or Netlify

1. **What could the total cost of the project? NA**

1. **Resources available to us:**

## Technical Resources:

Development Tools: Access to code editors, version control, and project management tools.

Online Learning Platforms: Tutorials and courses on platforms like Coursera, and Udemy, or free resources like MDN Web Docs, and W3Schools.



**Other Resources:**

* + https://in.pinterest.com/
  + https://www.figma.com/design
  + <https://www.canva.com/templates>
  + <https://www.mongodb.com/docs/>
  + <https://expressjs.com/>
  + <https://legacy.reactjs.org/docs/getting-started.html>
  + <https://nodejs.org/docs/latest/api/>
  + <https://redux.js.org/>
  + <https://nodemailer.com/>
  + <https://learning.postman.com/docs/getting-started/introduction/>