**PROJECT DOCUMENT**

**Proposal**

Marketplace Website for

Tutors and Students

**Documentation By –**

**Gunesh Upadhye**

[**gunesh.upadhye@gmail.com**](mailto:gunesh.upadhye@gmail.com)

**Mob: +91 9082619319**

**INDEX**

1. **Introduction**
   1. Project Overview
   2. Objectives
2. **Problem Statement** 
   1. Key Problem & Identified Challenges
      * + **Limited Access to Diverse Services**
        + **Complex Scheduling and Booking Process**
        + **Lack of Transparent Communication**
        + **Inefficient Payment Processing**
        + **Insufficient Provider Information and Reviews**
        + **Absence of Integrated Multimedia Features**
3. **Technical Solution**
   1. Frontend Development (React)
   2. Backend Development (Node.js)
   3. Database (MySQL)
   4. Video Conferencing Integration (Twilio/Zoom)
   5. Payment Gateway Integration (Stripe/Square Up)
   6. Email Service (Amazon SES)
4. **Scope: Detailed Feature List**
   1. For Service Takers
   2. For Service Providers
   3. For marketplace admin
5. **Detail Effort Estimations**
   1. Grand Total Estimation (Table – 6)
   * Table – 1
   * Table – 2
   * Table – 3
   * Table – 4
   * Table – 5
6. **Assumption & Constraint**
   1. Key Assumptions
   2. Constraints
7. **Delivery Plan**
   1. Phase 1 (Weeks 1-4)
   2. Phase 2 (Weeks 5-8)
   3. Phase 3 (Weeks 9-12)
   4. Phase 4 (Weeks 13-14)
8. **AS-IS High Flow Activity Diagram**
   1. Activity Diagram High Level (AS-IS)
9. **Introduction**
   1. **Project Overview**

The marketplace website project aims to create a comprehensive platform that connects tutors, painters, musicians, and other service providers with students seeking their services. The platform will facilitate seamless interactions, scheduling, and booking of sessions across various categories, enhancing accessibility and convenience for both service takers and providers.

* 1. **Project Objective:**

The goal of this project is to develop a user-centric marketplace website that addresses the identified challenges, providing a seamless and interactive platform for connecting service takers with diverse service providers. The solution aims to enhance user experience, foster transparent communication, streamline session management, and facilitate secure payment transactions, ultimately empowering users to discover, book, and engage with services efficiently and effectively.

1. **Problem Statement:**

In today's digital age, finding and connecting with reliable tutors, painters, musicians, and other service providers for personalized sessions poses significant challenges for students and individuals seeking specialized services. Existing platforms lack efficient scheduling, transparent communication, and streamlined payment processes, resulting in a fragmented and cumbersome user experience.

* 1. Key problems & identified challenges:
* **Limited Access to Diverse Services:**

Current platforms primarily focus on tutoring services, neglecting a broader range of categories such as painting, music lessons, and other specialized skills.

* **Complex Scheduling and Booking Process:**

Users encounter difficulties in scheduling and booking sessions due to limited availability visibility and cumbersome booking procedures.

* **Lack of Transparent Communication:**

Communication between service takers and providers is often disjointed, leading to misunderstandings and inefficiencies in session planning.

* **Inefficient Payment Processing:**

Payment processes on existing platforms are not seamless, resulting in delays and uncertainties in transaction management.

* **Insufficient Provider Information and Reviews:**

Users face challenges in evaluating service providers' qualifications, experience, and credibility due to inadequate profile information and limited user reviews.

* **Absence of Integrated Multimedia Features:**

Platforms lack multimedia capabilities for providers to showcase their work (e.g., photos, videos), hindering user engagement and decision-making.

1. **Technical Solution**

**3.1 Frontend:**

Utilizing React.js to build a responsive and engaging user interface (UI), delivering a smooth browsing experience.

**3.2 Backend:**

Leveraging Node.js with Express to handle server-side logic, user authentication, and database operations.

**3.3 Database**:

Implementing MySQL for storing user data, session details, and transaction records.

**3.4 Third-Party Integrations:**

Integrating Twilio/Zoom for video sessions and Stripe/Square Up for secure payment processing.

1. **Scope: Detailed Feature List**
   1. **For Service Takers (Students):**

|  |  |
| --- | --- |
| **Feature** | **Description** |
| **New User Login and Registration** |  |
| Account Creation | New users visit the website to create an account. Required information includes name, email address, and password. |
| Validation and Authentication | User input is validated through email verification and OTP authentication for data accuracy and completeness. |
| **Registered User Login** |  |
| Secure Authentication | Implement secure email/password authentication for user login. Develop a login page with authentication tokens. |
| Password Management | Include a "Forgot Password" feature with email verification and password reset functionality. |
| **Profile Setup and Customization** |  |
| Profile Completion | New users complete their profile with details like location, interests, and profile picture. |
| Customization Options | Provide options for users to customize profile settings, privacy preferences, and communication settings. |
| **User Account Management** |  |
| User Dashboard | After logging in, users access a customized dashboard displaying suggested services and relevant material. |
| Communication and Settings | Enable users to control communication preferences, manage bookings, payments, and profile settings. |
| **Account Settings** |  |
| Profile Management | Users can manage personal information, interests, and profile picture. |
| Email Update | Allow users to securely update their email address associated with the account. |
| Password Change | Implement a secure password change functionality for users to update their account password. |
| Payment Cards | Enable users to add, remove, or update payment cards linked to their account for seamless transactions. |
| **Legal Compliances** |  |
| Terms and Conditions | Provide access to terms and conditions outlining rules, obligations, and user rights on the platform. |
| About Us | Share information about the platform's mission, vision, and background. |
| Privacy Policy | Display the privacy policy detailing data collection, usage, and protection methods to ensure transparency and security. |
| **User Help and Support** |  |
| Support Ticket Submission | Users can reach the admin by submitting support tickets with issue details, subject, and description. |
| Notification System | Notify users of updates and actions through email or within the notification center. |

* 1. **For Service Providers:**

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| --- | --- |
| **Feature** | **Description** |
| **User Login and Registration** |  |
| Service Provider Registration | Allow service providers to register and create detailed profiles showcasing their expertise. |
| Essential Information Collection | Collect name, email, and professional qualifications during registration. |
| Multimedia Content Upload | Enable providers to upload photos and videos to highlight skills and portfolio. |
| **Listing Services and Availability** |  |
| Service Listing and Details | Enable providers to list services offered, including session formats, pricing, and availability. |
| Availability Management | Implement tools for providers to manage availability, set schedules, and update service details. |
| **Booking and Scheduling Tools** |  |
| Session Booking and Confirmation | Offer booking tools for providers to receive and confirm session requests from service takers. |
| Clear Availability Calendars | Display clear availability calendars and booking options to streamline scheduling. |
| **Communication and Interaction** |  |
| Integrated Messaging/Chat Features | Facilitate transparent communication between providers and service takers through messaging features. |
| Inquiry Response and Information | Allow providers to respond to inquiries, discuss session details, and provide personalized information. |
| **Profile Management and Settings** |  |
| Profile Customization | Offer options for providers to customize profile settings, privacy preferences, and communication. |
| Content Management | Allow providers to manage profile content, update service offerings, and maintain professional information. |
| **Payment Processing and Management** |  |
| Payment Gateway Integration | Integrate payment gateways (e.g., Stripe, PayPal) for secure session payments. |
| Financial Tools | Provide tools for providers to track earnings, view payment history, and manage financial transactions. |
| **Feedback and Reviews** |  |
| Session Feedback and Ratings | Enable providers to receive feedback and ratings from service takers after completed sessions. |
| Review Monitoring and Response | Allow providers to monitor and respond to user reviews, addressing feedback and improving service quality. |
| **Account Settings** |  |
| Profile Management | Manage profile information, qualifications, expertise, and portfolio details. |
| Security Settings | Update email address, change password securely, and manage payment methods. |
| **Legal Compliances** |  |
| Terms and Conditions | Access and review terms specific to service providers, outlining obligations, rights, and responsibilities. |
| Privacy Policy | Review the platform's privacy policy regarding personal information and data protection. |
| **User Help and Support** |  |
| Support Ticket Submission | Providers can submit support tickets for assistance with account or service-related inquiries. |
| Knowledge Base/FAQ | Access a knowledge base or FAQ section providing guidance on common questions and platform usage. |

* 1. **For marketplace admin:**

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| --- | --- |
| **Feature** | **Description** |
| **User Management** |  |
| View and Manage User Accounts | Admin can view and manage user accounts, including service takers (students) and service providers (tutors, painters, musicians). |
| New User Registration Approval | Verify and approve new user registrations to ensure legitimacy and quality of users on the platform. |
| Role and Permission Management | Assign and manage user roles and permissions (e.g., admin, moderator) for platform access and functionalities. |
| **Service Management** |  |
| Service Listing Management | Monitor and manage service listings created by providers across various categories. |
| Category Management | Create, update, or deactivate service categories based on market demands and trends. |
| New Service Review and Approval | Review and approve new services listed by providers to maintain quality and relevance. |
| **Booking and Scheduling** |  |
| Session Booking Management | View and manage session bookings, modifications, and cancellations between users. |
| Availability Monitoring | Monitor availability calendars and resolve scheduling conflicts to optimize service delivery. |
| **Payments and Transactions** |  |
| Payment Transaction Monitoring | Monitor payment transactions and ensure secure payment gateways. |
| Refunds and Dispute Resolution | Handle refunds and disputes related to payments. |
| Commission Management | Manage commission structures and earnings for service providers. |
| **Content Management** |  |
| Platform Announcements | Post platform announcements, news, and updates for users. |
| Content Moderation | Manage content displayed on the platform (e.g., FAQs, guidelines). |
| **User Support and Help Desk** |  |
| User Inquiry Response | Respond to user inquiries and support tickets. |
| Knowledge Base Management | Maintain a knowledge base or FAQ section for self-help resources. |
| **Security and Maintenance** |  |
| Platform Security Measures | Implement and monitor platform security measures. |
| Data Protection Compliance | Ensure compliance with data protection regulations. |
| System Performance Monitoring | Monitor system performance and uptime. |
| Software Updates and Maintenance | Implement software updates and patches for security and stability. |
| **Account Settings** |  |
| Profile Management | Service providers can manage their profile information, including qualifications and portfolio details. |
| Account Security Settings | Providers can update their email address or change their password securely. |
| Payment Settings Management | Manage payment settings, including adding, updating, or removing payment methods associated with their account. |
| **Legal and Regulatory Compliance** |  |
| Terms of Service Management | Update and enforce platform terms of service and user agreements. |
| Legal Compliance | Ensure legal compliance with local and international laws. |
| **User Help and Support** |  |
| Notification Configuration | Configure and manage user notifications for platform activities. |
| Timely User Communication | Ensure timely communication with users regarding platform activities. |

1. **Detail Effort Estimations**

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| --- | --- |
| **Table – 1. DEVELOPMENT DESIGN EFFORT ESTIMATION** | |
| **Task Description** | **Estimated Effort (hours)** |
| Requirements Gathering | 20 |
| System Design and Architecture | 30 |
| Frontend Development | 50 |
| Backend Development | 60 |
| Database Design and Setup | 40 |
| API Integration | 30 |
| **TOTAL ESTIMATION** | **230** |

|  |  |
| --- | --- |
| **Table – 2. PROJECT MANAGEMENT ESTIMATION** | |
| **Task Description** | **Estimated Effort (hours)** |
| Project Planning and Kickoff | 10 |
| Task Assignment and Scheduling | 20 |
| Progress Monitoring | 15 |
| Risk Assessment and Mitigation | 20 |
| Stakeholder Communication | 15 |
| Project Documentation | 25 |
| **TOTAL ESTIMATION** | **105** |

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| --- | --- | --- |
| **Table – 3. SERVICE TACKER FEATURE ESTIMATION** | | |
| **Feature Name** | **Description** | **Estimated Effort (hours)** |
| User Registration | Allow new users to register for accounts | 15 |
| User Login | Implement secure login/authentication | 10 |
| Profile Setup | Enable users to complete profile setup | 20 |
| Service Discovery | Implement search and browse functionality | 30 |
| Session Booking | Allow users to schedule, modify, and cancel sessions | 40 |
| Payment Processing | Integrate payment gateway for transactions | 35 |
| Messaging System | Implement real-time messaging and notifications | 25 |
| Feedback and Reviews | Enable users to leave reviews and ratings | 20 |
| Support/Help Desk | Provide user support and assistance | 15 |
| **TOTAL ESTIMATION** | | **210** |

|  |  |  |
| --- | --- | --- |
| **Table – 4. SERVICE PROVIDER FEATURE ESTIMATION** | | |
| **Feature Name** | **Description** | **Estimated Effort (hours)** |
| Service Provider Registration | Allow new providers to register for accounts | 15 |
| Provider Profile Setup | Enable providers to complete profile setup | 20 |
| Service Listing Creation | Allow providers to create and manage service listings | 30 |
| Availability Management | Implement availability calendar and scheduling features | 40 |
| Booking Management | Enable providers to accept, manage, and confirm bookings | 35 |
| Payment Management | Integrate payment gateway for receiving payments | 25 |
| Messaging System | Implement real-time messaging and notifications | 20 |
| Profile Customization | Allow providers to customize and update their profiles | 15 |
| **TOTAL ESTIMATION** | | **200** |

|  |  |  |
| --- | --- | --- |
| **Table – 5. ADMIN FEATURE ESTIMATION** | | |
| **Feature Name** | **Description** | **Estimated Effort (hours)** |
| Admin Dashboard | Create a comprehensive dashboard for platform management | 50 |
| User Management | Implement user administration and role management | 40 |
| Content Management | Enable admin to manage site content and listings | 30 |
| Payment Monitoring | Monitor and manage payment transactions and reports | 35 |
| Support/Help Desk | Provide support to users and handle inquiries | 25 |
| Security Enhancements | Implement security measures and data protection | 20 |
| **TOTAL ESTIMATION** | | **200** |

* 1. **Grand Total Project Estimation:**

|  |  |
| --- | --- |
| **Table – 6. TOTAL PROJECT ESTIMATION** | |
| Total Development Design Effort | 230 |
| Total Project Management Effort | 105 |
| Total Service Takers' Features Effort | 210 |
| Total Service Providers' Features Effort | 200 |
| Total Admin Features Effort | 200 |
| **Grand Total Estimated Effort** | **945** |

The estimated effort from hours to days would be approximately **118 days** of effort to complete the project

1. **Assumption & Constraint**

**6.1 Key Assumptions:**

Availability of third-party APIs (Twilio, Zoom, Stripe, Square Up) for integration.

Stakeholder engagement and timely feedback throughout the development process.

Clear and stable project requirements to minimize scope changes.

**6.2 Constraints:**

Budget constraints may impact the scope of design and development.

Technical limitations of third-party services may require alternative solutions.

Adherence to legal and compliance requirements for data privacy and payment processing.

1. **Delivery Plan**

**7.1 Phase 1** (Weeks 1-4):

Requirements gathering, UI/UX design, and frontend development.

**7.2 Phase 2** (Weeks 5-8):

Backend development, database integration, and initial testing.

**7.3 Phase 3** (Weeks 9-12):

Third-party integrations, payment gateway setup, and user acceptance testing.

**7.4 Phase 4** (Weeks 13-14):

Deployment, launch preparation, and post-launch support.

1. **Activity Diagram:**

8.1 AS-IS High Flow

