



FACULTY OF COMPUTING & INFORMATION TECHNOLOGY (FCIT)
UNIVERSITY OF Rasul, Mandi Bahaud Din

FINAL YEAR PROJECT (FYP)
PROPOSAL DOCUMENT

**“A Secure Web Platform for Managing Freelance
Contracts and Escrow Payments using Local
Payment Gateways”**

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1. Introduction

1.1 Project Title

“A Secure Web Platform for Managing Freelance Contracts and Escrow Payments using Local Payment Gateways”

1.2 Project Overview Statement

The proposed project, titled “A Secure Web Platform for Managing Freelance Contracts and Escrow Payments using Local Payment Gateways,” aims to address the growing issues of trust, payment security, and contract management within Pakistan’s local freelance market. Many freelancers and clients in Pakistan prefer to work outside international platforms like Fiverr and Upwork due to their high service charges and intense competition. However, working independently through social media or informal communication channels often leads to payment disputes, project delays, and a lack of accountability, as there is no standardized system to ensure safe transactions or enforce digital agreements.

This project proposes a web-based platform that enables freelancers and clients to create, manage, and execute freelance contracts securely while ensuring fair and transparent payments through escrow mechanisms. The system will integrate local payment gateways such as Easypaisa, JazzCash, and Visa/MasterCard to support seamless and accessible financial transactions. Key features will include contract creation, milestone-based payments, automated escrow release, dispute resolution, and user verification to ensure reliability and confidence between both parties.

By automating the freelance workflow and ensuring secure payment management, this system will serve as a trusted digital bridge between freelancers and clients in Pakistan. It will promote digital trust, financial inclusion, and transparent collaboration, while reducing the dependency on costly international freelancing platforms.

Project Overview Statement

Project Title: A Secure Web Platform for Managing Freelance Contracts and Escrow Payments using Local Payment Gateways

Group Leader: Muhammad Sarfraz Afzal

Project Members:

Name	Roll no. #	Email Address	Signature

Project Goal:

to develop a secure web platform that enables freelancers and clients to manage contracts and payments through an automated escrow system.

It aims to eliminate trust issues and payment fraud by integrating local gateways such as Easypaisa, JazzCash, and Visa.

Objectives:

Sr. No.	
1	connecting freelancers and clients for transparent collaboration.
2	Implement an automated escrow system to ensure safe and milestone-based payments
3	Integrate local payment gateways like Easypaisa, JazzCash
4	Enable digital contract creation and management for clarity
5	Provide a dispute resolution and review system
6	Establish a commission free local freelancing ecosystem

Project Success criteria: <p>The project will be considered successful when freelancers and clients can securely create contracts, make escrow-based payments, and resolve disputes through the platform.</p> <p>Integration of local payment gateways will ensure fast, reliable, and transparent transactions</p>		
Assumptions, Risks, and Obstacles: <p>1- Integrating multiple payment systems securely while maintain compliance with local regulations.</p> <p>2- Data breaches or cyberattacks may compromise user trust and platform integrity.</p>		
Organization Address (if any): 		
Type of project:	<input type="checkbox"/> Research	<input type="checkbox"/> Development
Target End users: <p>1- Pakistan's local Market Freelancers and Client</p>		
Development Technology:	<input type="checkbox"/> Object Oriented	<input type="checkbox"/> Structured
Platform: <div> <input type="checkbox"/> Web based <input type="checkbox"/> Distributed </div> <div> <input type="checkbox"/> Desktop based <input type="checkbox"/> Setup Configurations </div> <input type="checkbox"/> Other_____		
Suggested Project Supervisor: 		
Approved By: 		
Date: 		

1.4 Project Problem Statement, Goals & Objectives

Problem Statement

In Pakistan's freelance market, most freelancers and clients rely on informal communication channels such as social media or messaging apps to negotiate and manage projects. This often leads to trust issues, payment fraud, lack of formal contracts, and project disputes. Existing international platforms like Fiverr and Upwork charge high commissions and do not support local payment gateways, making them less accessible for many users. Therefore, there is a need for a secure, automated web platform that allows freelancers and clients to create digital contracts, manage escrow-based payments, and ensure transparent collaboration using local payment methods such as Easypaisa, JazzCash, and Visa.

Goals

to develop a secure web platform that enables freelancers and clients to manage contracts and payments through an automated escrow system. It aims to eliminate trust issues and payment fraud by integrating local gateways such as Easypaisa, JazzCash, and Visa.

Objectives

- Connecting freelancers and clients for transparent collaboration.
- Implemented an automated escrow system to ensure safe and milestone-based payments
- Integrate local payment gateways like Easypaisa, JazzCash
- Enable digital contract creation and management for clarity
- Provide a dispute resolution and review system
- Establish a commission free local freelancing ecosystem

1.5 High-level system components

Generally, an integrated application is composed of many different components that work collectively to address the problem for which the system has been devised. The high-level system components / modules for our application are the following:

- Authentication

- Contract Management
- Escrow Payment System
- Dispute Resolution
- Messaging & Notification System
- Dashboard
- Analytics & Reporting

1.6 List of optional functional units

- Integration with social media
- Feedback Module

1.7 Exclusions

There will be no exclusions in our project.

1.8 Application Architecture

We will follow 3-tier Architecture.

- React JS (Front End)
- Express Js and Node Js (Back End)
- PostgreSQL (Database)

1.9 Gantt chart

Sr. No.	Task Name	Start Date	End Date	Duration (Days)
1.	Orientation			0
2.	Project Proposal Submission			11
3.	Deliverable-I			27
4.	Deliverable-II			27
5.	Prototype-I			43
6.	GUI Design			10
7.	Software Development			80
8.	Testing			8
9.	Deployment			2
10.	Maintenance			10

1.10 Hardware and Software Specification

Hardware: (Recommended)

- 3.6 GHz Octa-core Processor
- Qualcomm Snapdragon 630
- 8 GB RAM
- 50 GB Storage

Software: (Recommended)

- Chrome
- Microsoft Edge

1.11 Tools and technologies used with reasoning

Tools:

Git and GitHub

GitHub provides a cloud based version control system that allows the entire team to collaborate on code, track changes, and merge updates safely without overwriting each other's work

Jira

Jira supports Scrum and Kanban methodologies, helping the development team plan sprints, assign tasks, and track progress efficiently throughout the FYP lifecycle.

Technology:

React Js

Component based, fast to build, large ecosystem (UI libraries, form handling).
Next.js adds server-side rendering and easy routing if you want SEO friendly pages (landing, docs).

Backend (ExpressJS + NodeJS)

Lightweight, JavaScript end-to-end (same language as frontend), vast middleware ecosystem, good for building REST/GraphQL APIs.

PostgreSQL

PostgreSQL gives strong ACID guarantees, transactions, and relational integrity (useful for payments, contracts, audit logs).

1.12 References

1. <https://www.sharetribe.com/how-to-build/freelance-marketplace/>
2. <https://www.quora.com/What-are-the-main-problems-with-freelancing-sites-like-Fiverr-People-Per-Hour-etc-What-can-be-done-to-improve-them-from-your-point-of-view-as-a-user-seller-buyer-from-those-sites>
3. <https://stripe.com/resources/more/how-to-accept-payments-as-a-freelancer-and-how-to-choose-the-right-payment-methods>
4. <https://emind.pk/online-earning-apps-in-pakistan/>