Freelance Marketplace Platform

📌 Project Idea

Build a full-stack freelance marketplace platform where **clients** can post projects and **freelancers** can bid, get hired, deliver work, and get reviewed.

Inspired by platforms like Upwork and Freelancer.com, this system supports:

- Project posting
- Bidding and hiring
- Contract management
- Ratings & reviews
- Messaging system

🗄 Database Schema Overview

We used PostgreSQL with support for ENUM types and relational integrity.

🔢 ENUM Types

- `user_role`: `client, freelancer`
- `project_status`: `open, in_progress, completed, cancelled`
- `bid_status`: `pending, accepted, rejected`
- `contract_status`: `active, completed, cancelled`

👤 Users Table

Stores basic user account info.

Field	Type
id	SERIAL PK
email	VARCHAR UNIQUE
password_hash	VARCHAR
role	user_role ENUM
first_name	VARCHAR
last_name	VARCHAR

Field	Type
profile_image_url	VARCHAR
bio	TEXT

☐ User Profiles

Additional profile info for freelancers.

Field	Type
user_id	FK → users
headline	VARCHAR
hourly_rate	DECIMAL
skills	TEXT
avg_rating	DECIMAL

☐ Projects

Projects posted by clients.

Field	Type
id	SERIAL PK
client_id	FK → users
title	VARCHAR
description	TEXT
budget_min	DECIMAL
budget_max	DECIMAL
status	ENUM
skills_required	TEXT

☐ Bids

Bids submitted by freelancers for projects.

Field	Type
id	SERIAL PK
project_id	FK → projects
freelancer_id	FK → users
amount	DECIMAL
duration_days	INTEGER
proposal	TEXT
status	ENUM

⬜ Contracts

Formal agreement between client and freelancer.

Field	Type
id	SERIAL PK
project_id	FK → projects
bid_id	FK → bids
client_id	FK → users
freelancer_id	FK → users
title	VARCHAR
amount	DECIMAL
start_date	DATE
end_date	DATE
status	ENUM

⬜ Reviews

User-to-user feedback on completed contracts.

Field	Type
id	SERIAL PK
contract_id	FK → contracts
reviewer_id	FK → users
reviewee_id	FK → users
rating	INTEGER
comment	TEXT

⬜ Messages

In-platform communication between users.

Field	Type
id	SERIAL PK
sender_id	FK → users
receiver_id	FK → users
project_id	FK → projects (optional)
message	TEXT
is_read	BOOLEAN

⚙ Functionality Highlights

For Clients:

- Post and manage projects
- Review freelancer bids
- Award contracts
- Leave reviews for completed work

For Freelancers:

- Create profile with skills and rate
- Browse and bid on projects
- Manage contracts and deadlines
- Receive and respond to client messages

Analytics Features:

- Top freelancers by rating
- Projects with most bids
- Clients with highest spend
- Contracts ending soon
- Skill-based freelancer match

Triggers & Automation

- `updated_at` auto-updates on modification
- Average rating recalculated after each new review