FOREX TRADING MLM WEB APPLICATION PROJECT

Project Overview

1. Main Components:

- **User Panel**: Interface for users to manage their accounts, wallets, investments, referrals, and withdrawal requests.

- **Main Website**: Attractive, dark-themed site showcasing company information, services, and registration options.

- **Admin Panel**: Backend interface for administrators to manage users, transactions, approve withdrawals, view reports, ROI, ROI level and configure system settings.

2. Functional Requirements:

1. **User Registration**:

    - Users can register via self-registration, admin creation, or referral by another user.

    - Upon registration, a wallet is automatically created with added security (password or other measures).

    - **Referral ID**: Generated for every user.

2. **Wallet Management**:

    - Users can view wallet balance, transaction history, and security settings (e.g., two-factor authentication).

3. **Adding Funds to Wallet**:

    - Suggestions for adding funds: Integrating payment gateways for USD(T) deposits, cryptocurrency payments, or bank transfers.

4. **Investment Process**:

    - User selects amount from wallet to invest.

    - Investment amount is transferred to the company's wallet.

5. **Weekly Returns**:

    - Automatically credit 2% of the user's investment in their wallet weekly until they reach 2x their initial investment.

- Timer-based logic to start returns after a 7-day lock-in period from the investment date.

6. **Referral Rewards** (one-time):

   - Multi-level referral rewards:

     - **Level 1**: 5% of referral's investment.

     - **Level 2**: 3% of referral's referral investment.

     - **Level 3**: 1% of referral's referral's referral investment.

     - **Level 4 & 5**: 0.5% of the respective level investments.

   - Referral tracking and commission distribution using hierarchical structures.

7. **Withdrawal Requests**:

   - Users initiate withdrawal requests from their wallets.

   - Requests require admin approval.

   - **Timing**

     - Requests made from Monday to Wednesday are processed on Sunday.

     - Requests made from Thursday to Sunday are processed on the following Sunday.

User Panel Details

1. Dashboard:

- Overview of wallet balance, investment status, and referral earnings.

- Quick links to add funds, view transactions, and initiate withdrawals.

2. Wallet Management:

- **Deposit Funds:** Interface for depositing funds using multiple payment methods.

- **Withdraw Funds:** Interface for submitting withdrawal requests.

- **Transaction History:** Detailed list of all transactions.

3. Investments:

- **Invest Funds:** Interface for selecting investment amount from wallet.

- **Active Investments:** List of current investments and expected returns.

- **Completed Investments:** History of completed investments.

4. Referral Network:

- Visualize and manage referral network up to 5 levels.

- Track referral earnings and bonuses earned.

5. Withdrawals:

- Initiate withdrawal requests with details on pending and approved requests.

- History of past withdrawals and their status.

6. Profile:

- Personal Information: Edit personal details.

- Security Settings: Manage password, two-factor authentication, and other security settings.

Admin Panel Details

- **Dashboard:** Overview of system statistics, including total users, total investments, pending withdrawals, and overall earnings.

- **User Management:**

    - **User List:** Manage user accounts, including creation, editing, and deletion.

    - **User Details:** View detailed information on individual users.

- **Investment Management:**

    - **Active Investments:** Monitor and manage active user investments.

    - **Completed Investments:** View history of completed investments.

- **Transaction Management:**

    - **All Transactions:** Detailed list of all transactions in the system.

    - **Withdrawal Requests:** Approve or reject pending withdrawal requests.

- **Referral Management:**

    - **Referral Hierarchy:** View and manage the referral structure.

    - **Referral Earnings:** Monitor and manage referral commissions.

- **Settings:**

    - **System Settings:** Configure system-wide settings such as withdrawal approval processes and referral commission rates.

    - **Notifications:** Manage system notifications for users and admins.

- **Security:**
  - **Access Logs:** Monitor admin access and actions within the admin panel.
  - **Security Settings**: Manage security settings such as two-factor authentication for admin accounts.

Schema Outline

1. **User Schema**

   - **_id:** ObjectId
   - **name:** String, required
   - **email:** String, required, unique
   - **passwordHash:** String, required
   - **referralId:** String, required, unique
   - **walletId:** ObjectId, reference to Wallet schema
   - **referredBy:** ObjectId (reference to User), optional
   - **investments:** Array of ObjectId (references to Investment)
   - **referrals:** Array of ObjectId (references to User)
   - **createdAt:** Date, default: Date.now
   - **updatedAt:** Date, default: Date.now

2. **Wallet Schema**

   - **_id:** ObjectId
   - **userId:** ObjectId, reference to User schema
   - **balance:** Number, default: 0
   - **transactions**: [{ type: ObjectId, ref: 'Transaction' }]
   - **securitySettings:**
     {
     - **twoFactorAuthEnabled:** Boolean, default: false
     - **passwordResetTokens**: [String]
     - **accessLogs:** [{ type: ObjectId, ref: 'AccessLog' }]
     }
   - **createdAt:** Date, default: Date.now
   - **updatedAt:** Date, default: Date.now

3. Investment Schema

- **_id:** ObjectId
- **userId:** ObjectId, reference to User schema
- **amount:** Number, required
- **investmentDate:** Date, default: Date.now
- **weeklyRewardPercentage:** Number, required
- **status**: { type: String, enum: ['active', 'completed'], default: 'active' }
- **returns:** [{ type: ObjectId, ref: 'Transaction' }]
- **totalReward:** Number, required
- **endDate**: Date, optional
- **createdAt:** Date, default: Date.now
- **updatedAt:** Date, default: Date.now

4. Transaction Schema

- **_id:** ObjectId
- **userId:** ObjectId, reference to User schema
- **type:** { type: String, enum: ['deposit', 'withdrawal', 'return', 'referral_commission'], required }
- **amount:** Number, required
- **transactionDate:** Date, default: Date.now
- **details:** String
- **createdAt:** Date, default: Date.now

5. Referral Schema

- **_id:** ObjectId
- **userId:** ObjectId, referencppe to User schema
- **referrerId:** ObjectId, reference to User schema
- **createdAt:** Date, default: Date.now

6. WithdrawalRequest Schema

- **_id:** ObjectId

- **userId:** ObjectId, reference to User schema

- **amount:** Number, required

- **requestDate:** Date, default: Date.now

- **status:** { type: String, enum: ['pending', 'approved', 'rejected'], default: 'pending' }

- **approvalDate:** Date

- **processedDate:** Date

- **createdAt:** Date, default: Date.now

- **updatedAt:** Date, default: Date.now

7. **Admin Schema**

- **_id:** ObjectId

- **username:** String, required, unique

- **email :** String, required, unique

- **passwordHash:** String, required

- **createdAt:** Date, default: Date.now

- **updatedAt:** Date, default: Date.now

8. **Settings Schema**

- **_id:** ObjectId

- **withdrawalApprovalProcess:** { type: String, enum: ['manual', 'auto'], default: 'manual' }

- **Investment Return Rate Schema : {**
  - **weeklyReturnRate:** Number, required
  - **maximumReturnRate:** Number, required**}**

- **referralCommissionRates: {**
  - **level1:** Number, default: 5

  - **level2:** Number, default: 3

  - **level3:** Number, default: 1

  - **level4:** Number, default: 0.5

- ▪ **level5:** Number, default: 0.5 **}**
  - **systemNotifications:** [{ type: String }]
  - **createdAt:** Date, default: Date.now
  - **updatedAt:** Date, default: Date.now

9. Security Schema

- **_id:** ObjectId
- **userId:** ObjectId, reference to User schema
- **twoFactorAuthEnabled:** Boolean, default: false
- **passwordResetTokens:** [String]
- **accessLogs:** [{ type: ObjectId, ref: 'AccessLog' }]
- **createdAt:** Date, default: Date.now
- **updatedAt:** Date, default: Date.now

10. AccessLog Schema

- **_id:** ObjectId
- **userId:** ObjectId, reference to User schema
- **timestamp:** Date, default: Date.now
- **activity:** String
- **ipAddress:** String
- **createdAt:** Date, default: Date.now
- **updatedAt:** Date, default: Date.now