Functional Requirements Document

**Project Title: Telegram Account Buyer Bot**

# 1. Objective

To develop a Telegram bot that allows users to purchase Telegram accounts, track referrals, manage wallets, and process admin approvals with TRX (TRC20) integration and country-based restrictions.

# 2. User Roles

## 2.1 Regular User

- Register and set password  
- Submit Telegram account files  
- Earn referral rewards  
- Connect TRX wallet  
- View balance and status

## 2.2 Admin

- Approve or reject user submissions  
- Set confirmation time  
- Set allowed countries  
- Manage user balances  
- Monitor wallet transactions  
- Use full admin panel via Telegram

# 3. Functional Requirements

## 3.1 User Authentication

* FR-1.1: User must set a password on first launch via /start.
* FR-1.2: Password must be verified on each login session.
* FR-1.3: Password can be changed with /changepassword.

## 3.2 Wallet Management

* FR-2.1: User can connect a TRX (TRC20) wallet via /connectwallet.
* FR-2.2: Incoming TRX (TRC20) token transfers are auto-detected and recorded.

## 3.3 Telegram Account Submission

* FR-3.1: User can upload Telegram account files (.zip, .txt, .json).
* FR-3.2: Uploaded files are sent to the admin for review.
* FR-3.3: Admin can approve/reject uploads.
* FR-3.4: On approval, user receives balance and success message.

## 3.4 Referral System

* FR-4.1: Referral link is generated for each user.
* FR-4.2: When a referred user is confirmed, the referrer receives $0.01.
* FR-4.3: Referral relationships are stored and tracked.

## 3.5 Account Confirmation System

* FR-5.1: Admin can set a global confirmation time (e.g., 10 minutes).
* FR-5.2: A cron job auto-rejects if admin does not confirm in time.
* FR-5.3: User is notified of result (accept/reject/timeout).

## 3.6 Country Restrictions

* FR-6.1: Admin can specify allowed and restricted countries.
* FR-6.2: Users are validated by phone number prefix or IP geo.
* FR-6.3: Access is denied if country is restricted.

## 3.7 Balance Management

* FR-7.1: User can view current balance.
* FR-7.2: Balance is updated after successful confirmation or referral.
* FR-7.3: Admin can manually update any user’s balance.

## 3.8 Admin Panel (Telegram-Based)

* FR-8.1: Admin can view pending file uploads.
* FR-8.2: Admin can approve/reject uploads.
* FR-8.3: Admin can set confirmation time.
* FR-8.4: Admin can view and manage referrals.
* FR-8.5: Admin can add/remove allowed countries.

## 3.9 Notifications

* FR-9.1: Users are notified of upload status.
* FR-9.2: Admin is notified when new files are submitted.
* FR-9.3: Referral confirmation notifications are sent.
* FR-9.4: TRX wallet incoming transfers trigger a notification.

# 4. Data Requirements

4.1 User Collection:

{  
 "telegramId": "string",  
 "username": "string",  
 "passwordHash": "string",  
 "walletAddress": "string",  
 "referrerId": "string",  
 "balance": "number",  
 "country": "string",  
 "isApproved": "boolean"  
}

4.2 Referral Collection:

{  
 "referrerId": "string",  
 "referredId": "string",  
 "credited": "boolean"  
}

4.3 Upload Collection:

{  
 "userId": "string",  
 "fileLink": "string",  
 "status": "pending | approved | rejected",  
 "timestamp": "Date"  
}

4.4 Country Settings:

{  
 "allowedCountries": ["US", "IN", "UK"]  
}

# 5. Scheduled Jobs

- Auto-reject unconfirmed uploads after N minutes.  
- Optional: periodic balance check via TRON node/webhook.

# 6. Non-Functional Requirements

- Security: Passwords stored with hashing (e.g., bcrypt).

- Scalability: Designed for 1,000+ users.

- Availability: 99% uptime expected.

- Compliance: Telegram Bot API and TronWeb integration compliant.