Highway Hospice System Analysis Document

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Due date: Sunday, 27 April 2025

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1. Functional Requirements

- **User Registration and Management:**

Users must be able to register with personal details (title, first name, surname, phone numbers, email, address, ID number, SARS tax number, and banking details).

They must also be able to update their details after registration.

- **Lottery Management:**

Users can join one or more "2000 Clubs" by donating R50 per club.

A random winner must be selected using a secure Random Number Generator (RNG) system.

Users should be able to view their entries and past winners.

- **Donations and Payment:**

Users can make once-off or recurring monthly or yearly donations.

The system must generate and allow users to download SARS tax certificates.

Users must also receive receipts for each donation.

- **Auction Management:**

Users must be able to browse auction items (with images, descriptions, and dates) and submit bids through the app.

- Data Management:

Admins must be able to upload and consolidate donation and lottery data.

Data should be exportable to spreadsheets.

- Security and Authorization:

Different levels of access must exist for donors, administrators, and lottery managers.

All user and payment information must be securely managed.

- Support and Maintenance Features:

There should be a support feature for users to report technical issues.

Handover documentation or training should be prepared for the hospice's internal IT team after the project ends.

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2. Non-Functional Requirements

- Reliability:

The system must have at least 99.5% uptime to ensure service availability.

- Scalability:

The system must handle a large number of users (more than 10,000).

- Security:

The system must comply with South Africa's POPIA (Protection of Personal Information Act).User and payment data must be encrypted.

- Performance:

Payment transactions must process within 3 seconds.

Screen navigation and key actions must occur within 1 second.

- Usability:

The app should be simple and intuitive, considering that some users may not be highly tech-savvy.

- Maintainability:

Source code should be clean, structured, and documented for easy future updates.

- Hosting:

Preferably hosted on a cloud platform like Firebase, unless Highway Hospice requests a different solution.

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3. **User Roles**

- Public Donor:

Registers, donates, participates in lotteries, downloads tax certificates, and views auction items.

- Admin Staff:

Manages users, monitors donations, oversees lotteries, and manages auction content.

- Lottery Manager:

Oversees the running of the 2000 Club lotteries, generates winners, and produces reports.

- IT Support:

Responsible for ongoing technical maintenance, updates, and troubleshooting after project handover.

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4. **User Stories**

- As a donor, I want to register with my full details so that I can join lotteries and donate easily.
- As a donor, I want to make a donation and receive an immediate receipt so that I have proof of payment.

- As a donor, I want to download my SARS tax certificate so that I can claim tax benefits on my donations.

- As an admin, I want to consolidate donor and lottery participant data so that reporting is easier.

- As a lottery manager, I want to randomly and fairly select winners so that the process is transparent and compliant.

- As a donor, I want to view auction items and submit bids through the app so that I can participate without visiting the hospice physically.

- As an admin, I want users to be able to report technical issues so that we can address them quickly.

Each user story should be assigned a business priority (high or medium), an estimated effort score (e.g., 3, 5, 8, or 13 points), and be mapped to a sprint (Sprint 1, 2, or 3) during planning.

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5. **User Experience (UX) Journey Map**

- Home Screen:

Welcome page offering options: Join Lottery, Make a Donation, or Browse Auctions.

- Register/Login Screen:

Users create an account or log in. After logging in, they are directed to the Home Screen.

- Lottery Screen:

Users view available lottery clubs, join by making a donation, and view current and past winners.

- Donation Screen:

Users make once-off or recurring donations. Payment confirmation and receipt are shown.

- Tax Certificate Screen:

Users can download their SARS tax certificates and view their donation history.

- Auction Catalogue Screen:

Users can browse auction items with photos and descriptions and submit bids directly through the app.

- Admin Dashboard:

Admins can manage users, monitor lotteries, handle auction entries, and manage payment reports.

- Help and Support Screen:

Users can report technical issues, find FAQs, and get help.
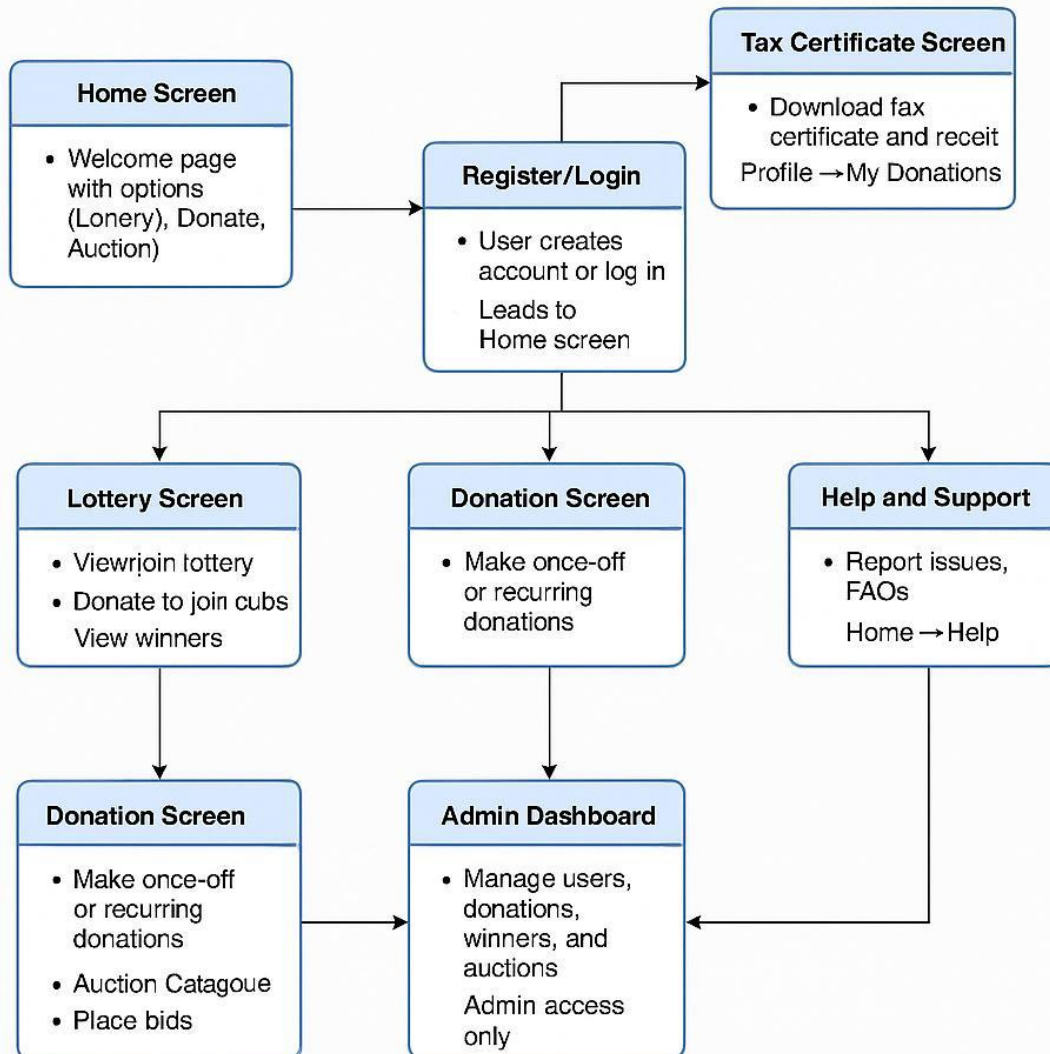
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6. **Research Summary**

- To build a solution that meets Highway Hospice's needs, we conducted the following research activities:

- Held a detailed meeting with client representatives.

- Reviewed their operations around the "2000 Clubs" lottery system.

- Analyzed current challenges, including manual data handling, fragmented auction processes, and limitations in payment integration.

- Reviewed the Highway Hospice's lottery website (2000club.co.za) for insights and inspiration.

- Discussed the legal and compliance importance of managing lotteries under license and ensuring tax certificate generation.

- Agreed on the importance of security, system stability, and long-term support planning.

Final Notes

- Confirm cloud hosting options with the client (Firebase, or another solution if preferred).
- Confirm the preferred payment gateway for recurring debit orders.
- Prepare either training sessions or technical documentation to hand over at the end of the project.

Diagram showing UX-J Journey Map :

UX–J Journey Map