

Group -19
Donation Management
(EktaFund)

Team Members

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TASK 1



USE CASE DIAGRAM

TASK 2 - USER STORIES

Front Card (User Stories)	Back Card (Details)
User Sign Up: As a Donor/User, I want to sign up for the platform so that I can donate to NGOs.	Details for User Sign Up: Users can sign up by providing necessary details such as name, email, and password. The system validates the email and password strength, ensuring the data is secure. Users will receive a confirmation email upon successful registration.
NGO Registration Approval: As an Admin, I want to approve NGO registrations so that only legitimate organizations can join the platform.	Details for NGO Registration Approval: Admins can approve or reject NGO registration requests based on the NGO's authenticity. They will review documents such as certificates of incorporation, tax status, and organizational goals to verify legitimacy.
NGO Registration: As an NGO, I want to register on the platform so that I can receive donations.	Details for NGO Registration: NGOs provide organization details such as legal name, registration number, contact info, mission, and areas of focus. The registration will be reviewed by the admin, ensuring all necessary documents are provided and valid.
User Login: As a Donor/User, I want to log in to my account so that I can access the platform's features.	Details for User Login: Users log in using their email and password. Passwords are securely hashed, and multi-factor authentication (MFA) can be enabled for enhanced security. Session timeouts ensure user data is protected in case of inactivity.

<p>Update NGO Profile: As an NGO, I want to update my profile so that my information stays current and accurate.</p>	<p>Details for Update NGO Profile: NGOs can update details such as contact information, mission statements, ongoing projects, and funding goals.</p> <p>Any updates will be sent to the admin for review, and approved updates will be reflected on the platform.</p>
<p>Browse NGOs: As a Donor/User, I want to browse through NGOs so that I can find one that I want to donate to.</p>	<p>Details for Browse NGOs: Users can see a list of registered NGOs with brief descriptions, including their missions, active campaigns, and geographical areas of focus. NGOs can be sorted by name, rating, or relevance to user preferences</p>
<p>Search & Filter NGOs: As a Donor/User, I want to search and filter NGOs by specific criteria so that I can find one that aligns with my interests.</p>	<p>Details for Search & Filter NGOs: Users can search and filter NGOs by categories such as cause (e.g., education, healthcare), location, size, and active campaigns. Filters ensure users can easily find NGOs that align with their personal values or local interests.</p>
<p>Announcements: As an NGO, I want to announce events or campaigns so that potential donors can be informed.</p>	<p>Details for Announcements: NGOs can create and post announcements for upcoming events, fundraising campaigns, or milestone achievements. These posts will appear on the NGO's profile and in a newsfeed accessible to donors, keeping donors engaged and informed.</p>

<p>View NGO Profile: As a Donor/User, I want to view an NGO's profile so that I can learn more about them before donating.</p>	<p>Details for View NGO Profile: Users can view detailed NGO profiles that include mission statements, contact details, past work, transparency reports, and financials. Profiles highlight impact stories, donor reviews, and information on how donations are utilized.</p>
<p>Review NGO: As a Donor/User, I want to review an NGO so that other users can see my feedback and decide whether to donate.</p>	<p>Details for Review NGO: Users can leave reviews and ratings on an NGO's profile page based on their personal experiences. Reviews can include qualitative feedback on how transparent the NGO is, communication effectiveness, and the perceived impact of donations.</p>
<p>Fundraiser: As an NGO, I want to raise funds through the platform so that I can finance my projects.</p>	<p>Details for Fundraiser: NGOs can create fundraising campaigns that are visible to potential donors. Fundraiser pages can include donation goals, campaign timelines, progress bars, and call-to-action buttons to encourage donor participation.</p>
<p>Payment Portal: As a Donor/User, I want to donate to an NGO via the payment portal so that I can support a cause.</p>	<p>Details for Payment Portal: Users can donate through various payment methods such as credit cards, bank transfers, or digital wallets. The payment portal is secured with encryption, and users can choose to make one-time or recurring donations.</p>

<p>Bill Generation: As an Admin, I want to generate bills and receipts after a donation is made so that donors have proof of their contributions.</p>	<p>Details for Bill Generation: The system automatically generates a bill or receipt once a donation is confirmed. Receipts are sent to donors via email and include donation amount, date, NGO name, and tax information, ensuring full transparency for tax purposes.</p>
<p>Donation Acknowledgment: As a Donor/User, I want to receive an acknowledgment after donating so that I know my transaction was successful.</p>	<p>Details for Donation Acknowledgment: Users receive a thank you note or email after successfully donating, confirming the transaction. The acknowledgment may include information about the NGO and how the funds will be used, fostering a positive donor experience.</p>
<p>Manage NGO Updates: As an Admin, I want to manage and verify NGO updates so that information remains accurate.</p>	<p>Details for Manage NGO Updates: Admins review updates made by NGOs to ensure that any changes in contact details, projects, or financial information are accurate and compliant with platform rules. Updates are approved before being reflected on the NGO's profile.</p>
<p>NGO-Donor Communication: As an NGO, I want to communicate directly with donors so that I can build better relationships.</p>	<p>Details for NGO-Donor Communication: NGOs can send personalized messages or mass emails to donors who have supported them. This feature allows NGOs to thank donors, provide project updates, or invite them to future events, helping build long-term relationships.</p>

<p>Donation History: As a Donor/User, I want to see a history of my donations so that I can track my contributions.</p>	<p>Details for Donation History: Users can access a detailed history of their past donations, including donation dates, amounts, and NGOs they have supported. This history helps users track their charitable contributions over time and facilitates financial planning.</p>
<p>Filter by Cause: As a Donor/User, I want to filter NGOs by cause (e.g., education, health) so that I can support a cause I believe in.</p>	<p>Details for Filter by Cause: Users can filter NGOs by specific causes such as education, healthcare, the environment, or community development. This allows donors to focus on areas that align with their personal beliefs or where they feel their contributions will make the most impact.</p>
<p>Monitor Transactions: As an Admin, I want to monitor transactions and donations to ensure they are secure and legitimate.</p>	<p>Details for Monitor Transactions: Admins have access to transaction logs and donation details. They can review the origin of donations, detect potential fraud, and ensure compliance with financial regulations to maintain the integrity and security of the platform.</p>

<p>Rate Donation Experience: As a Donor/User, I want to review and rate my donation experience so that future donors can be informed.</p>	<p>Details for Rate Donation Experience: Donors can rate their overall donation experience, from the ease of the process to the acknowledgment they received. Ratings and feedback help future donors decide which NGOs to support and contribute to improving the platform.</p>
<p>Track Fundraiser Success: As an NGO, I want to track the success of my fundraising campaigns so that I can adjust my strategies.</p>	<p>Details for Track Fundraiser Success: NGOs can view detailed campaign metrics such as total donations, the number of donors, and engagement levels. This data helps NGOs refine their campaigns, identify donor patterns, and optimize future fundraising efforts.</p>
<p>Receive NGO Updates: As a Donor/User, I want to receive updates from NGOs I've supported so that I can stay informed about their progress.</p>	<p>Details for Receive NGO Updates: Users can opt-in to receive newsletters or progress updates from NGOs they have donated to. These updates may include project milestones, financial reports, or success stories, helping donors feel connected to the cause they support.</p>
<p>Platform Oversight: As an Admin, I want to oversee the entire platform's operations so that everything runs smoothly.</p>	<p>Details for Platform Oversight: Admins have access to all system controls and can manage user roles, permissions, and system performance. They can</p>

	monitor user activities, donation trends, and platform health to ensure smooth and secure operation.
Compare NGOs: As a Donor/User, I want to compare different NGOs so that I can choose the one I trust the most.	Details for Compare NGOs: Users can compare NGOs side-by-side based on key criteria such as user ratings, transparency, financial efficiency, and the scale of impact. This helps donors make informed decisions when selecting which NGO to support.
Manage User Accounts: As an Admin, I want to manage donor/user accounts so that the platform remains organized and secure.	Details for Manage User Accounts: Admins can view and manage donor/user accounts, including resetting passwords, suspending accounts, and updating user information. This ensures that user data remains accurate and that security protocols are consistently enforced.
Donation Analytics: As an NGO, I want to access donation analytics so that I can better understand my supporters.	Details of Donation Analytics : NGOs can view detailed reports and analytics on donor behavior, including donation frequency, amount trends, and preferred payment methods. This helps in identifying key supporters, recognizing fundraising patterns, and optimizing future campaigns for better donor retention

<p>Favorite NGOs: As a Donor/User, I want to save NGOs to a favorite list so that I can easily find them later.</p>	<p>Details of Favorite NGOs: Users can easily save their preferred NGOs to a favorite list for convenient future access. This list allows for quick donation access, tracking NGOs' progress, and receiving updates on their activities or goals.</p>
<p>Platform Performance Monitoring: As an Admin, I want to monitor the success of the platform so that I can make improvements.</p>	<p>Details of Platform Performance Monitoring: Admins can access real-time metrics on platform performance, including user engagement, total donations, average donation size, and user growth. This data will allow them to make informed decisions to enhance the platform's efficiency and impact.</p>
<p>Event Reminders: As a Donor/User, I want to receive reminders for upcoming fundraising events so that I don't miss any opportunities to donate.</p>	<p>Details of Event Reminders: Users can opt-in for timely notifications via email or SMS about upcoming fundraising events from NGOs they support or follow. This ensures they don't miss any opportunities to participate in important causes.</p>
<p>NGO Collaboration: As an NGO, I want to connect with other NGOs on the platform so that we can collaborate on projects.</p>	<p>Details of NGO Collaboration: NGOs can explore and connect with other NGOs on the platform. They can collaborate by sharing resources, ideas, or working on joint campaigns for larger projects, creating a network for mutual support and innovation.</p>

Task 3:

- **Develop sprints from the product backlog**
- **Specify your sprint details with an estimated timeline for development (use FP or OP for the estimation)**
- **Estimate how many sprints you can develop in your course project**

Function Type	Low	Medium	High
External Input (EI)	3	4	6
External Output (RO)	4	5	7
External inquiry (EI)	3	4	6
Internal Logical File(ILF)	7	10	15
External Interface Files	5	7	10

Sprint 1: User Registration and Authentication

Duration: 2 weeks

Stories:

1. Donor Registration

- **Backend Story:** User Registration API
- **Tasks:**
 - Implement API for user registration.
 - Validate input fields.
 - Hash and securely store passwords .
 - Include optional fields like contact numbers .
 - Set up user roles and permissions.

2. NGO Registration

- **Backend Story:** NGO Registration API
- **Tasks:**
 - Implement API for NGO registration .
 - Store organization details, mission statements, and legal documents .
 - Create a profile for each NGO.

Estimated Effort: 42.9 ~ 43 FP

Functionality	UFP	AFP	Total FP
API for user Registration	$(1 \times 4) + (1 \times 5) + (1 \times 4) + (1 \times 7) + (0 \times 5) = 20$	0.65	13
Validate Input Fields	$(1 \times 4) + (0 \times 5) + (0 \times 4) + (0 \times 7) + (0 \times 5) = 4$	0.65	2.6
Hash and securely For password	$(1 \times 4) + (0 \times 5) + (0 \times 4) + (1 \times 7) + (0 \times 5) = 11$	0.65	7.15
Include optional Fields like contact numbers	$(1 \times 4) + (0 \times 5) + (0 \times 4) + (1 \times 7) + (0 \times 5) = 11$	0.65	7.15
Set up user roles & permission	$(1 \times 4) + (1 \times 5) + (1 \times 4) + (1 \times 7) + (0 \times 5) = 20$	0.65	13

Sprint 2: Admin Verification and NGO Listing

Duration: 2.5 weeks

Stories:

1. Admin Verification

- **Backend Story:** Verification API
- **Tasks:**
 - Implement verification process for NGO documents.
 - Include status updates and notifications .

2. Search and Filter NGOs

- **Backend Story:** NGO Listing and Filtering API
- **Tasks:**
 - Create API to retrieve NGO profiles with filtering options .
 - Optimize database queries for search and filter operations .

3. NGO Profile Update

- **Backend Story:** Profile Management API
- **Tasks:**
 - Implement API for profile updates .
 - Validate changes and ensure data integrity .
 - Allow NGOs to update recent projects, impact metrics, etc. .

Estimated Effort: 49 FP

Functionality	UFP	AFP	Total FP
Verification NGO	$(1 \times 4) + (1 \times 5) + (1 \times 4) + (1 \times 7) + (0 \times 5) = 20$	0.65	13
Status updates & Notification	$(1 \times 4) + (1 \times 5) + (1 \times 4) + (1 \times 7) + (0 \times 5) = 20$	0.65	13
Retrieve NGO profile	$(1 \times 4) + (1 \times 5) + (1 \times 4) + (1 \times 7) + (0 \times 5) = 20$	0.65	13
Validity for changes and data integrity	$(1 \times 4) + (0 \times 5) + (1 \times 4) + (1 \times 7) + (0 \times 5) = 15$	0.65	9.75
NGO to update Recent projects	$(1 \times 4) + (1 \times 5) + (0 \times 4) + (1 \times 7) + (0 \times 5) = 16$	0.65	10.4

Sprint 3: Donation Management

Duration: 3 weeks

Stories:

1. Donation Process

- **Backend Story:** Payment Processing API
- **Tasks:**
 - Integrate payment gateways .
 - Ensure secure processing and storage of payment information .
 - Generate donation receipts and transaction IDs .

2. NGO Donation Management

- **Backend Story:** Bill Generation API
- **Tasks:**
 - Create a billing system for receipts .
 - Store transaction records securely .
 - Provide downloadable donation reports .

Estimated Effort: 61FP

Functionality	UFP	AFP	Total FP
Integrated payment gateways	$(1 \times 4) + (1 \times 5) + (1 \times 4) + (0 \times 7) + (1 \times 5) = 18$	0.65	11.7
Generate donation receipts	$(1 \times 4) + (1 \times 5) + (1 \times 4) + (1 \times 7) + (0 \times 5) = 17$	0.65	11.05
Create a billing system for receipts	$(2 \times 4) + (2 \times 5) + (1 \times 3) + (1 \times 7) + (0 \times 5) = 23$	0.65	15.6
Store transaction records securely	$(0 \times 3) + (1 \times 4) + (0 \times 3) + (1 \times 7) + (0 \times 5) = 11$	0.65	7.15
Provide donation reports	$(2 \times 4) + (1 \times 5) + (1 \times 4) + (1 \times 7) + (0 \times 5) = 23$	0.65	15.6

Sprint 4: Admin Dashboard

Duration: 2.5 weeks

Stories:

1. Manage Users and NGOs

- **Backend Story:** Admin Management System
- **Tasks:**
 - Implement CRUD operations for NGOs, donors, and admins .
 - Create tools for account management .
 - Provide auditing capabilities .

2. Reporting System

- **Backend Story:** Reporting System API
- **Tasks:**
 - Create APIs to generate reports .
 - Allow exporting of reports in formats like PDF or CSV .

Estimated Effort: 53 FP

Functionality	UFP	AF	Total FP
Implement CRUD operations	$(1 \times 4) + (1 \times 5) + (1 \times 4) + (1 \times 7) + (0 \times 5) = 20$	0.65	13
Account Management	$(1 \times 4) + (0 \times 5) + (0 \times 4) + (1 \times 7) + (0 \times 5) = 11$	0.65	7.15
Provide auditing capabilities	$(1 \times 4) + (1 \times 5) + (1 \times 4) + (1 \times 7) + (0 \times 5) = 20$	0.65	13
Generate reports	$(1 \times 4) + (1 \times 5) + (1 \times 4) + (1 \times 7) + (0 \times 5) = 20$	0.65	13
Allow export data	$(1 \times 4) + (0 \times 5) + (0 \times 4) + (1 \times 7) + (0 \times 5) = 11$	0.65	7.15

Sprint 5: User Feedback and Support

Duration: 1.5 weeks

Stories:

1. Donor Feedback

- **Backend Story:** Review System API
- **Tasks:**
 - Implement API for creating and fetching reviews .
 - Allow NGOs to reply to reviews .
 - Ensure reviews are moderated by admins .

2. NGO Response

- **Backend Story:** Review Response API
- **Tasks:**
 - Enable NGOs to respond to feedback .

Estimated Effort: 33.15 FP

Functionality	UFP	AF	Total FP
Review System	$(1 \times 4) + (1 \times 5) + (1 \times 4) + (1 \times 7) + (0 \times 5) = 20$	0.65	13
Allow NGOs to reply	$(1 \times 4) + (0 \times 5) + (0 \times 4) + (1 \times 7) + (0 \times 5) = 11$	0.65	7.15
Reviews moderation by admins	$(1 \times 4) + (1 \times 5) + (1 \times 4) + (1 \times 7) + (0 \times 5) = 20$	0.65	13

Sprint 6: External Integrations and Security

Duration: 3 weeks

Stories:

1. Donor Feedback

- **Backend Story:** Review System API
- **Tasks:**
 - Implement API for creating and fetching reviews .
 - Allow NGOs to reply to reviews .
 - Ensure reviews are moderated by admins .

2. NGO Response

- **Backend Story:** Review Response API
- **Tasks:**
 - Enable NGOs to respond to feedback .

Estimated Effort: 33.15 FP

Functionality	UFP	AF	Total FP
Review System	$(1 \times 4) + (1 \times 5) + (1 \times 4) + (1 \times 7) + (0 \times 5) = 20$	0.65	13
Allow NGOs to reply	$(1 \times 4) + (0 \times 5) + (0 \times 4) + (1 \times 7) + (0 \times 5) = 11$	0.65	7.15
Reviews moderation by admins	$(1 \times 4) + (1 \times 5) + (1 \times 4) + (1 \times 7) + (0 \times 5) = 20$	0.65	13