

Software Development Plan Template

TITLE PAGE CONTENT

NAME OF SYSTEM 3rka.site

DATE 7/4/2024

Version 2.0

Presented To:

who

Submitted By:

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1. PRODUCT DESCRIPTION

This project is named 3rka.site and it aims to provide well trained fighters to support Egyptians in their fights. A client can simply register an account and plan a fight by declaring the location, date, time, details, etc. and can choose among a list of well trained fighters according to his needs and budget, he can choose according to the fighter's experience, used weapon, body shape, or skills.

On the other hand, one can apply as a fighter if he thinks he fits the requirements and has the required skills. After applying a fighter will receive a response via the email he provided in his application form, he will be either accepted or rejected, if accepted the user can view a dashboard with the confirmed fights he is needed to participate in, previous fights, total income, etc.

Managers/Admins have a detailed dashboard in their admin panel with the fighters applications and pending fights waiting for approvals, settings where they can manage client and fighters accounts.

2. TEAM DESCRIPTION

	Sharaf Ahmed	Mohamed Saady	Hitham Omar
Full-Stack		X	
Security		X	
Database Manager	X		
Market Researcher	X	X	X
Back-End			X
Database Engineer	X		X

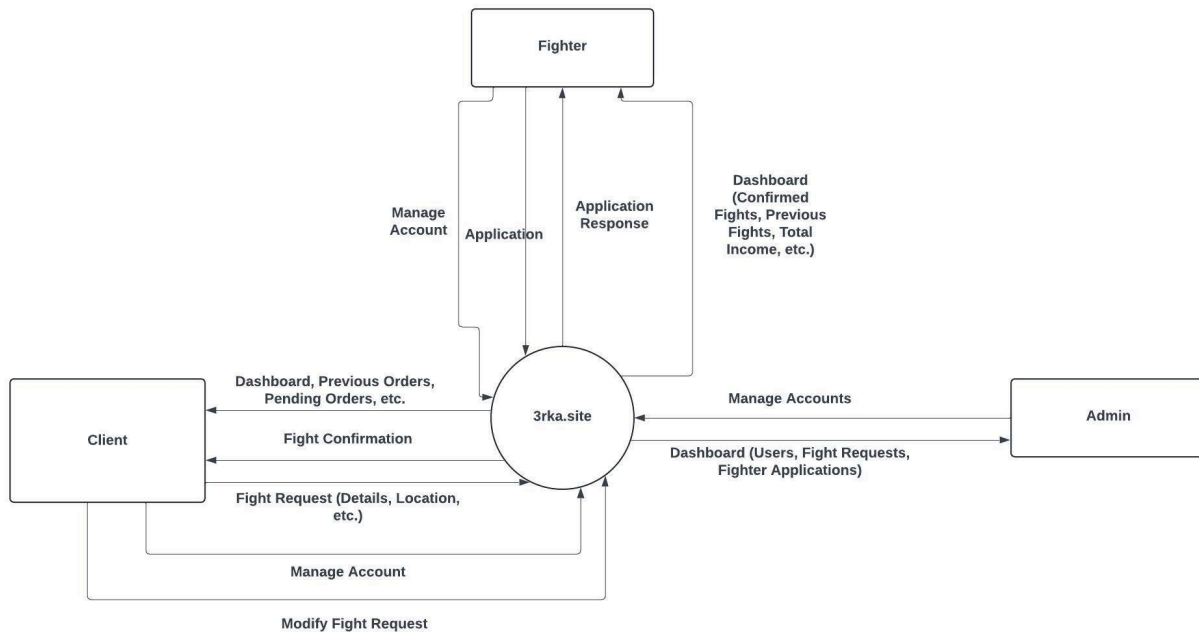
3. SOFTWARE PROCESS MODEL DESCRIPTION

Considering the project's features and potential for frequent updates based on user feedback and legal requirements, an iterative model like Agile (specifically Scrum) is best suited for 3rka.site. Here's why:

- Agile is iterative: It allows for breaking down the project into smaller, manageable features. This facilitates faster development cycles and easier adaptation to changing needs.
- Scrum emphasizes user feedback: Regular feedback loops through user stories and sprint reviews ensure the application aligns with user needs and evolves accordingly.

4. PRODUCT DEFINITION

Context Diagram



Personas

Below is a brief description of those people outside the system that the system interfaces with.

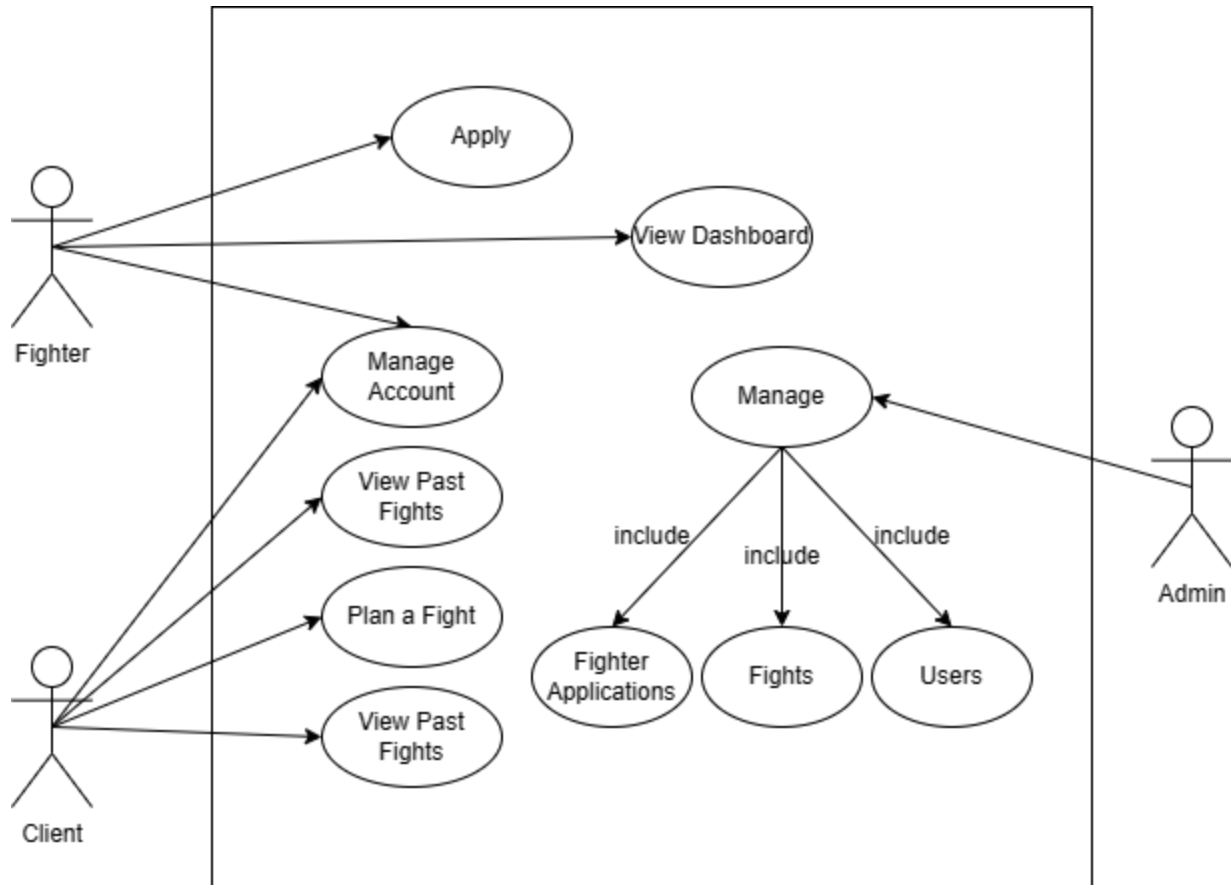
User Stories

Defines the high level user stories for the product

High Level Use Cases

Defines the high level user stories for the product. Goal is to paint a picture of the product, not define the whole solution. Includes diagram and use case descriptions.

Use Cases



Use Case	Register as a Client
Actors	Client
Precondition	User is not registered on the platform.
Postcondition	User has a registered account and can access client functionalities.
Flow of Events	<ol style="list-style-type: none"> 1. User navigates to the registration page. 2. User enters name, email address, password, and other required information. 3. User creates an account. 4. System sends a confirmation email to the user's email address. 5. User clicks the confirmation link in the email to activate their account. (Optional)
Special Requirements	<ul style="list-style-type: none"> - The registration process should be simple and user-friendly. - The system should enforce strong password policies to ensure account security.

Use Case	Plan a Fight
Actors	Client
Precondition	User is a registered client.
Postcondition	A fight is booked on the platform, and both client and fighter receive confirmation.
Flow of Events	<ol style="list-style-type: none"> 1. User logs in to the system. 2. User selects the "Plan a Fight" option. 3. User enters details of the fight, including location, date, time, and description. 4. User selects desired fighter criteria (experience, weapon, body shape, skills). 5. System displays a list of available fighters matching the criteria. 6. User selects a fighter from the list. 7. System displays the fighter's profile with details and pricing. 8. User confirms the booking and makes payment. 9. System sends confirmation emails to both client and fighter with fight details and contact information.
Special Requirements	<ul style="list-style-type: none"> - The system should provide a user-friendly interface for fight planning. - The search functionality should allow for efficient filtering of fighters based on client preferences. - The payment process should be secure and reliable.

Use Case	View Past Fights
Actors	Client
Precondition	User is a registered client with past fights.
Postcondition	User can access and view details of their past fights.
Flow of Events	<ol style="list-style-type: none"> 1. User logs in to the system. 2. User selects the "Past Fights" option. 3. System displays a list of the client's past fights with details (date, location, fighter, outcome). 4. User can view details of each fight, including: <ol style="list-style-type: none"> 5. Fighter information 6. Fight location and time 7. Fight outcome and any additional notes
Special Requirements	<p>The system should provide a clear and organized view of past fight history.</p> <p>Details of each past fight should be easily accessible to the client.</p>

Use Case	Manage Account
Actors	Client
Precondition	User is a registered client.
Postcondition	User can update their account information and preferences.
Flow of Events	<ol style="list-style-type: none"> 1. User logs in to the system. 2. User selects the "Profile" or "Account Settings" option. 3. User can view and update account information (name, email, password). 4. User can view past fight history and manage communication preferences (e.g., email notifications).
Special Requirements	<p>The system should allow for easy access and update of user information.</p> <p>Clients should be able to manage their communication preferences for receiving updates from the platform.</p>

Use Case	Apply as a Fighter
Actors	Fighter
Precondition	User is not registered on the platform as a fighter.
Postcondition	User submits a fighter application for review by the platform manager/admin.
Flow of Events	<ol style="list-style-type: none"> 1. User navigates to the "Become a Fighter" page. 2. User enters details about their experience, skills, weapons used, and body shape. 3. User uploads a profile picture and video showcasing their skills (optional). 4. User submits the application. 5. System sends a confirmation email to the user's email address acknowledging the application.
Special Requirements	<p>The system should allow for easy access and update of user information.</p> <p>Clients should be able to manage their communication preferences for receiving updates from the platform.</p>

Use Case	Manage Profile
Actors	Fighter
Precondition	User is a registered and approved fighter.
Postcondition	Fighter can update their profile information and showcase their skills.
Flow of Events	<ol style="list-style-type: none"> 1. User logs in to the system. 2. User selects the "Profile" or "Account Settings" option. 3. User can view and update profile information: <ul style="list-style-type: none"> - Experience level - Skills and specialties - Weapons used (if applicable) - Body shape description (optional) 4. User can update profile picture and video (optional).
Special Requirements	<p>The system should allow fighters to easily update and maintain their profile information.</p> <p>Uploading a profile video should be an option to allow fighters to showcase their skills and increase their visibility to potential clients.</p>

Use Case	View Fighter Dashboard
Actors	Fighter
Precondition	User is a registered and approved fighter.
Postcondition	Fighter can view details and manage upcoming and past fights, track income, and update profile information.
Flow of Events	<ol style="list-style-type: none"> 1. User logs in to the system. 2. System displays a dashboard with: <ul style="list-style-type: none"> - Upcoming fights (date, location, client details) - Past fights (date, location, client details, outcome) - Total income earned from fights - Other relevant information (e.g., ratings, reviews) 3. Fighter can view details of each fight, including: <ul style="list-style-type: none"> - Client information - Fight location, date, and time - Fight description and any specific requirements 4. Fighter can confirm participation or reject a fight (with reason).
Special Requirements	<p>The fighter dashboard should provide a clear and concise overview of the fighter's activity on the platform.</p> <p>Fighters should be able to easily communicate fight acceptance or rejection with clear reasons.</p>

Use Case	Manage Fighter
Actors	Manager/Admin
Precondition	User is logged in as a manager/admin.
Postcondition	The system provides a streamlined process for reviewing and managing fighter applications.
Flow of Events	<ol style="list-style-type: none"> 1. Manager/Admin accesses the "Manage Fighters" section. 2. System displays a list of pending fighter applications. 3. Manager/Admin can search and filter applications by various criteria (name, experience, skills, etc.). 4. Manager/Admin reviews each application in detail (profile information, application video). 5. Manager/Admin decides to approve or reject the application. <ul style="list-style-type: none"> - Approve: <ol style="list-style-type: none"> 1. Grants fighter access to the platform and allows them to participate in fights. 2. System sends an automated email notification to the fighter congratulating them on their approval and providing login instructions. - Reject: <ol style="list-style-type: none"> 1. Provides the fighter with feedback on their application and informs them why it was rejected. 2. System sends an automated email notification to the fighter explaining the rejection and offering suggestions for improvement (optional).System updates fight details and sends notifications to all parties involved in case of cancellations or reassignments. 6. System updates the application status and sends a notification to the fighter.
Special Requirements	<p>The application review process should be efficient and transparent.</p> <p>The system should provide clear criteria for fighter approval.</p> <p>Feedback provided to rejected applicants should be constructive and actionable.</p>

Use Case	Manage Fights
Actors	Manager/Admin
Precondition	User is logged in as a manager/admin.
Postcondition	The system allows for efficient oversight and management of all fights on the platform.
Flow of Events	<ol style="list-style-type: none"> 1. Manager/Admin accesses the "Manage Fights" section. 2. System displays a list of upcoming and past fights. 3. Manager/Admin can filter fights by various criteria (date, client, fighter, status). 4. Manager/Admin views details of each fight, including: <ul style="list-style-type: none"> - Client information - Fighter information - Fight location, date, and time - Booking status (confirmed, pending, cancelled). 5. Manager/Admin can manage fight cancellations or reassignments if needed: <ul style="list-style-type: none"> - Cancellations: <ul style="list-style-type: none"> ■ Manager/Admin identifies the reason for cancellation (client or fighter initiated). ■ Manager/Admin notifies both client and fighter and facilitates communication for rescheduling (optional). ■ System updates the fight status and sends cancellation notifications to both parties. - Reassignments: <ul style="list-style-type: none"> ■ Manager/Admin identifies a suitable replacement fighter based on client requirements and fighter availability. ■ Manager/Admin communicates with the replacement fighter to confirm participation. ■ Upon confirmation, system updates the fight details with the new fighter information. ■ System sends notifications to the client and both fighters (original and replacement) regarding the change. 6. System updates fight details and sends notifications to all parties involved in case of cancellations or reassignments.
Special Requirements	<p>The system should provide clear communication channels for all parties involved in a fight (client, fighter, manager/admin).</p> <p>The fight cancellation/reassignment process should be seamless and minimize disruption for users.</p> <p>The system should maintain an audit trail of all fight modifications.</p>

Use Case	Manage Users
Actors	Manager/Admin
Precondition	User is logged in as a manager/admin.
Postcondition	The system grants manager/admin control over user accounts and facilitates effective user management.
Flow of Events	<ol style="list-style-type: none"> 1. Manager/Admin accesses the "Manage Users" section. 2. System displays a list of all registered users (clients and fighters). 3. Manager/Admin can search and filter users by various criteria (name, email, registration date, user type, etc.). 4. Manager/Admin views details of each user account, including: <ul style="list-style-type: none"> - Profile information (name, email, contact details) - Past fight history (client) or fight participation (fighter) - Communication preferences 5. Manager/Admin can perform actions on user accounts: <ul style="list-style-type: none"> - Edit user information: Update information for accuracy (upon request or for administrative purposes). - Suspend or deactivate user accounts: For users violating platform terms (e.g., abusive behaviour, fraudulent activity). - Reset user passwords: Assist users who forget their passwords. 6. User data can be exported for reporting purposes (optional).
Special Requirements	Control over user accounts and ability to manage them effectively. Options for temporary suspension or permanent account deactivation.

Defines the high level descriptions

Be sure to the textual use case description consists of 6 parts:

1. **Unique name**
2. **Participating actors**
3. **Entry conditions**
4. **Exit conditions**
5. **Flow of events: 5 - 7 steps describing the Happy Path**
6. **Special requirements.**

Below are the high level use cases for the Application, based on the above use case diagram.

5. USER EXPERIENCE WIREFRAMES

Initial prototype screens to validate initial understanding of the product.

6. PROJECT ORGANIZATION

Responsibility	Team Member(s)	Description
Development (Front-end & Back-end)	Mohamed Saady (Lead), Haitham Omar	- Build a secure and user-friendly platform. - Mohamed will take the lead, working closely with Haitham.
Data Management & Research	Sharaf Ahmed	- Manage the database for efficient data storage and retrieval. - Conduct market research to provide insights for development and platform relevance.
Communication & Collaboration	All Team Members	- Participate in regular discussions to ensure smooth progress and address any challenges.

Matrix of Responsibilities

	Sharaf Ahmed	Mohamed Saady	Hitham Omar
Full-Stack		X	
Security		X	
Database Manager	X		
Market Researcher	X		

Back-End			X
Database Engineer			X

PERT / Gantt Chart

First cut at schedule

7. VALIDATION PLAN

Test Strategy:

- Market Need: Validate the existence of a market for pre-arranged combat assistance and assess user interest in the service.
- Value Proposition: Evaluate if the core functionalities of 3rka.site address the needs of both clients and fighters.
- Usability: Ensure the platform is user-friendly, intuitive, and facilitates a smooth experience for both clients and fighters.

Success Metrics:

- Survey Response Rate: Track the number of responses to online surveys to gauge initial interest in the concept.
- Early Adopter Program Participation: Track the number of users who sign up for the early adopter program.
- Usability Testing Findings: Identify the number and severity of usability issues encountered during testing sessions.
- User Interview Feedback: Analyze interview data to identify common themes and suggestions for improvement.

8. RISK ASSESSMENT

Risk Identification:

- Legal Issues:
 - High Risk: Operating in jurisdictions with laws prohibiting pre-arranged combat could result in legal repercussions.
 - Medium Risk: Even in legal grey areas, the platform might face lawsuits due to injuries sustained during fights.
- Safety Concerns:
 - High Risk: Fights could lead to serious injuries or even death for participants.
 - Medium Risk: The platform could be misused to facilitate illegal activities.
- Market Viability:
 - Medium Risk: The target market for pre-arranged combat assistance might be limited.
 - Medium Risk: Users might be hesitant to pay for services due to safety concerns or lack of trust in the platform.
- Technical Risks:
 - Medium Risk: Data security breaches could expose user information.
 - Low Risk: Technical glitches or downtime on the platform could disrupt user experience.

Risk Mitigation Strategies:

- Legal Risks:
 - Conduct thorough legal consultations to ensure compliance with local regulations.
 - Clearly outline user agreements with disclaimers on limitations of liability.
 - Potentially partner with security or licensing bodies (if applicable).
- Safety Concerns:
 - Implement a robust user verification process (ID checks, background checks where possible).

- Mandate safety precautions during fights (protective gear, referees).
 - Integrate clear disclaimers about the inherent risks of pre-arranged combat.
 - Offer a dispute resolution mechanism within the platform.
- Market Viability:
 - Conduct thorough market research to validate user interest and willingness to pay.
 - Consider a niche market focus (e.g., sparring partners for athletes).
 - Emphasize safety measures and user verification on the platform to build trust.
- Technical Risks:
 - Implement robust security measures to protect user data.
 - Conduct regular security audits and penetration testing.
 - Develop a disaster recovery plan to ensure platform uptime.

9. TOOLS

MYSQL - HTML - CSS - PHP (

10. ARCHITECTURE

- Devices for testing
 1. Phones
 2. Laptop
- Computers for programming