

USE CASES

The **user** will be able to:

1. Register for the service
2. Upload a picture
3. Search the database

The **professional** will be able to:

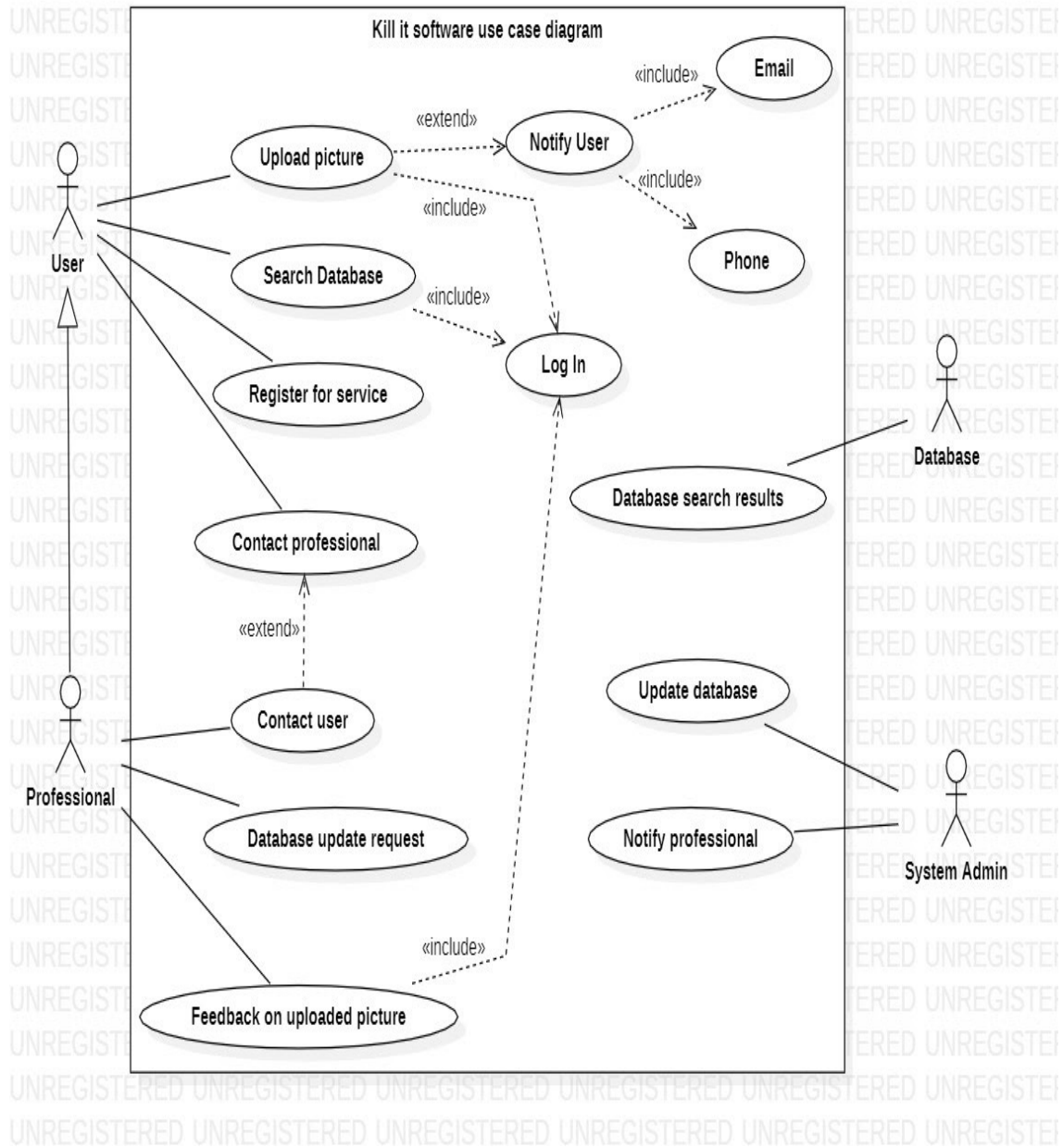
1. Register for the service
2. Query feedback
3. Contact the user for clarification
4. Request a database update if new information is found.

The **database** will be able to:

1. Provide detailed information (disease, treatment, medication, etc)

The **system admin** will be able to:

1. Update the database
2. Notify the professional for verification.



Use case ranking and priority matrix

The use case ranking, and priority matrix is a tool used to evaluate use cases and determine their priority on a 1-5 scale against six criteria.

1. Significant impact on the architectural design.
2. Easy to implement but contains significant functionality.
3. Includes risky, time-critical, or complex functions.
4. Involves significant research; new or risky technology.
5. Includes primary business functions.
6. Will increase revenue or decrease costs.

| Use case ID | Use case name | Ranking criteria, 1-5 | | | | | | Total score | Priority | Build cycle |
|-------------|------------------------------|-----------------------|---|---|---|---|---|-------------|----------|-------------|
| | | 1 | 2 | 3 | 4 | 5 | 6 | | | |
| 1 | Register for service | 5 | 5 | 1 | 1 | 3 | 3 | 18 | Medium | 1 |
| 2 | login | 5 | 5 | 1 | 1 | 3 | 3 | 18 | Medium | 2 |
| 3 | Search database | 4 | 4 | 4 | 1 | 5 | 5 | 23 | High | 3 |
| 4 | Upload picture | 4 | 5 | 3 | 1 | 5 | 5 | 23 | High | 4 |
| 5 | Feedback on uploaded picture | 3 | 5 | 2 | 1 | 5 | 2 | 18 | High | 5 |
| 6 | Database search results | 5 | 1 | 4 | 2 | 3 | 1 | 16 | High | 5 |

[illegible]

EXPANDED USE CASE AND SEQUENCE DIAGRAM

Expanded Use Case

Kill It System

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Date: 18th March 2019

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Version: 1.0

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| | | |
|----------------------------|----------------|-------------------------|
| Use-Case Name | Upload Picture | Use-Case Type: Business |
| Use-Case-ID | 3 | |
| Priority | High | |
| Source | | |
| Primary Business Actor | User | |
| Other Participating Actors | Professional | |

| | | |
|--------------------------------------|---|---|
| Other Interested Stakeholders | Professional - Interested in information authenticity. | |
| Description | This use case describes the event of a user uploading a picture of the pest or disease affecting their farm. Upon uploading the picture, the notification system notifies the user via email or text message. The uploaded picture is then in a queue waiting to be analysed by a professional. | |
| Precondition | The user must be registered for the service. | |
| Trigger | Initiated when the user uploads a picture. | |
| Typical Course of Events | Actor Action | System Response |
| | Step1: The user uploads a picture to the database. | <p>Step 2: The database sends a confirmation to the Notification System.</p> <p>Step 3: The Notification System sends a notification to the user via email or text message, depending on the user's preference.</p> |

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| Alternative Courses | |
| Conclusions | Concludes when the system notifies the user. |
| Post-condition | The Professional, based on their opinion, sends the user a feedback report on the picture uploaded. |
| Business Rules | Availability of professionals may affect the amount of time taken to get feedback to the user. |
| Implementation Constraints and Specifications | The size of the image uploaded by the user must not exceed the specified size. |
| Assumptions | |
| Open Issues | |

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|-------------------------------|----------------------|-------------------------|
| Use-Case Name | Register for Service | Use-Case Type: Business |
| Use-Case-ID | 1 | |
| Priority | Medium | |
| Source | | |
| Primary Business Actor | User | |
| Other Participating Actors | Professional | |
| Other Interested Stakeholders | N/A | |

| | | |
|---------------------------------|---|---|
| Description | This use case describes the event of a person registering for the service whether it be a user or a professional. Upon successfully registering by providing a username and a password, the system saves the account information. | |
| Precondition | none. | |
| Trigger | Initialized when a person clicks the register button. | |
| Typical Course of Events | Actor Action | System Response |
| | Step1: the user clicks the register button. | Step 2: the system adds the account to the accounts database. |
| Alternative Courses | none. | |
| Conclusions | Concludes when the system notifies the user that they have successfully registered for the service. | |
| Post-condition | the logon screen will be displayed again for the person to log into the system using their newly created credentials. | |
| Business Rules | Username may not be available due to being already taken or used in another account. | |

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| Implementation Constraints and Specifications | Passwords must have special characters and integers and be a maximum of 8 characters. |
| Assumptions | |
| Open Issues | |

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|------------------------|-------------------------|-------------------------|
| Use-Case Name | Request database update | Use-Case Type: Business |
| Use-Case-ID | 10 | |
| Priority | Medium | |
| Source | | |
| Primary Business Actor | Professional | |

| | | |
|--------------------------------------|--|--|
| Other Participating Actors | System Admin | |
| Other Interested Stakeholders | Database | |
| Description | This use case describes the event where a professional sends an “update database” request to the system admin in the case where new information is found and needs to be added to the database in order to keep it up to date. | |
| Precondition | none. | |
| Trigger | Initialized when the professional contacts the system admin. | |
| Typical Course of Events | Actor Action | System Response |
| | <p>Step 1: The professional clicks on the “send update request” button.</p> <p>Step 3: The system admin emails the professional to get the details in order to update the database.</p> <p>Step 4: The professional provides the details to the System Admin</p> | <p>Step 2: The system notifies the system admin of the new update request from the professional.</p> |

| | | |
|--|--|--|
| | Step 5: The system admin updates the database with credit to the professional | Step 6: The system sends the professional a notification of the updated database entry suggested by him. |
| Alternative Courses | none. | |
| Conclusions | Concludes when the system notifies the professional of the database update. | |
| Post-condition | The information added to the database after the update will now be visible to users in their searches. | |
| Business Rules | | |
| Implementation Constraints and Specifications | The promptness of the system admin will be crucial to how quickly the database can be updated. | |
| Assumptions | | |
| Open Issues | | |