System Requirements Document

# 1. User Authentication

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| UC Name | UC-1001 – User Log In |
| Summary | Given that the user provides the correct account details, the user should be logged in to the website. |
| Preconditions | The user is not already authenticated. The user has access to the login page. |
| Description of the Main Sequence | 1. The user navigates to the log in/sign up page. 2. The user selects the 'Log In' option. 3. The user enters the correct account details. 4. The system authenticates the user. |
| Description of the Alternative Sequence | 1. The user navigates to the log in/sign up page. 2. The user selects 'Log In'. 3. The user enters incorrect account details. 4. The system prompts the user to re-enter the details or reset the password. |
| Postconditions | The user is successfully authenticated. |

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| UC Name | UC-1002 – User Sign Up |
| Summary | The user should be able to create a new account, assuming the provided email is not already in use. |
| Preconditions | There is no existing account with the same email. |
| Description of the Main Sequence | 1. The user navigates to the log in/sign up page. 2. The user selects 'Sign Up'. 3. The user enters the desired account details. 4. The system sends a verification email. 5. The user verifies the account and is registered in the system. |
| Description of the Alternative Sequence | 1. The user navigates to the log in/sign up page. 2. The user selects 'Sign Up'. 3. The user enters the desired account details. 4. The system notifies the user that the email already exists and prompts for a different email. |
| Postconditions | The user now has an account in the database (with a pending or verified status depending on email confirmation). |

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| UC Name | UC-1003 – User Resets Password |
| Summary | After forgetting the password, the user resets it and is then able to log in successfully. |
| Preconditions | The user is unable to log in due to a forgotten password. |
| Description of the Main Sequence | 1. The user navigates to the log in/sign up page. 2. The user selects 'Log In'. 3. The user clicks the 'Forgot Password?' option. 4. The system sends a password reset verification email. 5. The user verifies their identity and successfully resets the password. |
| Description of the Alternative Sequence | If the reset token is invalid or expired, the system displays an error message and offers to resend the verification email. |
| Postconditions | The user can log in with the newly chosen password. |

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| UC Name | UC-1004 – User in Guest Mode |
| Summary | The user should be able to navigate and use the website in a limited capacity without logging in. |
| Preconditions | The user is not logged in. |
| Description of the Main Sequence | 1. The user navigates to the featured main page. 2. The user is allowed to browse questions and view video answers, but interactive features (such as posting an answer) are limited. |
| Description of the Alternative Sequence | If a guest attempts an action that requires authentication (e.g., submitting an answer), the system prompts the user to log in or sign up. |
| Postconditions | The user accesses a read-only or limited interactive mode. |

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| UC Name | UC-1005 – User Log Out |
| Summary | An authenticated user can securely end their session. |
| Preconditions | The user is logged in. |
| Description of the Main Sequence | 1. The user clicks the 'Log Out' button. 2. The system invalidates the current session or JWT. 3. The user is redirected to the homepage or login page. |
| Description of the Alternative Sequence |  |
| Postconditions | The user is logged out and must log in again to access protected features. |

# 2. Main System Features

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| UC Name | UC-2001 – User Can Search Questions |
| Summary | Users should be able to search for questions based on keywords. |
| Preconditions | The user is logged in or using guest mode. |
| Description of the Main Sequence | 1. The user navigates to the search box and enters a query. 2. The system displays questions that match the search query. |
| Description of the Alternative Sequence | 1. The user enters a query that yields no results. 2. The system informs the user that no matching questions were found. |
| Postconditions | The user is able to identify and access questions relevant to their query. |

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| UC Name | UC-2002 – User Can Filter Questions |
| Summary | Users should be able to filter questions based on parameters such as category, number of answers, or time asked. |
| Preconditions | The user is logged in or using guest mode. |
| Description of the Main Sequence | 1. The user navigates to the 'Filter' component. 2. The user selects desired filters (and additional parameters if needed). 3. The system displays questions that meet the filter criteria. |
| Description of the Alternative Sequence | 1. If no questions match the selected filters, the system informs the user accordingly. |
| Postconditions | The user sees a refined list of questions based on the applied filters. |

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| UC Name | UC-2003 – User Can Sort Questions |
| Summary | Users should be able to sort questions based on criteria such as category, number of answers, time created, or number of comments/likes. |
| Preconditions | The user is logged in or using guest mode. |
| Description of the Main Sequence | 1. The user navigates to the 'Sort' component. 2. The user selects a sorting parameter (with additional options if necessary). 3. The system displays the questions sorted according to the selected parameter. |
| Description of the Alternative Sequence |  |
| Postconditions | The questions are organized in the desired order for the user. |

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| UC Name | UC-2004 – User Can View Video Answers |
| Summary | Users should be able to view video answers associated with a particular question. |
| Preconditions | The user is logged in or using guest mode, and the user has selected a question. |
| Description of the Main Sequence | 1. The user selects a desired question. 2. The user clicks to view the answers, and the system displays the associated video answers. |
| Description of the Alternative Sequence | 1. If no answers are available, the system notifies the user that no answers have been submitted. |
| Postconditions | The video answer(s) are displayed for the user. |

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| UC Name | UC-2005 – User Can Submit a Video Answer |
| Summary | Users should be able to answer a question by recording or uploading a video. |
| Preconditions | The user is logged in, has granted permission to access their camera (if recording), and has selected the question to answer. |
| Description of the Main Sequence | 1. The user selects the question to answer. 2. The user grants permission to record via the camera. 3. The user records a video or uploads an existing one. 4. The system processes and stores the video in cloud storage. |
| Description of the Alternative Sequence | 1. If the user does not grant camera permission, the system cancels the process and prompts the user. |
| Postconditions | The user’s video answer is published and available for viewing. |

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| UC Name | UC-2006 – User Can Submit a Text Answer |
| Summary | Users should be able to answer a question by submitting a text response. |
| Preconditions | The user is logged in and has selected the question to answer. |
| Description of the Main Sequence | 1. The user selects the question to answer. 2. The user submits a text answer. 3. The system saves and publishes the text response. |
| Description of the Alternative Sequence |  |
| Postconditions | The text answer is available for viewing alongside the question. |

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| UC Name | UC-2007 – User Can Ask a Question |
| Summary | Users can publish a new question on the website. |
| Preconditions | The user is logged in. |
| Description of the Main Sequence | 1. The user clicks the 'Ask a Question' button. 2. The user fills out the question form (title, description, category). 3. The user clicks 'Submit'. 4. The system publishes the new question. |
| Description of the Alternative Sequence |  |
| Postconditions | The question is added to the website and is visible to other users. |

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| UC Name | UC-2008 – User Can Like or Dislike a Post |
| Summary | Users should be able to like or dislike a question or comment to boost engagement. |
| Preconditions | The user is logged in and has selected a post (question or comment). |
| Description of the Main Sequence | 1. The user clicks the like or dislike button on a post. |
| Description of the Alternative Sequence |  |
| Postconditions | The like/dislike count of the post is updated accordingly. |

# 3. Additional Use Cases

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| UC Name | UC-3001 – User Profile Management |
| Summary | Authenticated users can update their personal details (e.g., username, bio, avatar). |
| Preconditions | The user is logged in. |
| Description of the Main Sequence | 1. The user navigates to the 'Profile Settings' page. 2. The user updates desired fields. 3. The system validates and saves the changes. |
| Description of the Alternative Sequence | If invalid data is entered, the system displays an error message. |
| Postconditions | The user's profile information is updated in the database. |

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| UC Name | UC-3002 – User Comments on a Post |
| Summary | Users can add text-based comments on questions or answers. |
| Preconditions | The user is logged in and the target question or answer exists. |
| Description of the Main Sequence | 1. The user selects a question or answer to comment on. 2. The user enters a comment in the provided text box. 3. The system saves and publishes the comment. |
| Description of the Alternative Sequence | If the comment is empty or invalid, the system prompts the user to enter valid text. |
| Postconditions | The new comment is displayed with the corresponding post. |

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| UC Name | UC-3003 – User Edits or Deletes Their Post |
| Summary | Users can modify or remove their previously submitted question, answer, or comment. |
| Preconditions | The user is logged in and is the author of the post. |
| Description of the Main Sequence | 1. The user navigates to their post. 2. The user selects 'Edit' to update or 'Delete' to remove the post. 3. For edits, the user makes changes and submits; the system saves the update. 4. For deletion, the system removes or flags the post. |
| Description of the Alternative Sequence | If a user attempts to modify another user’s post, the system displays a permission error. |
| Postconditions | The post is updated or removed accordingly. |

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| UC Name | UC-3004 – User Reports Inappropriate Content |
| Summary | Users can flag a question, answer, or comment as inappropriate. |
| Preconditions | The user is logged in and the content to be reported exists. |
| Description of the Main Sequence | 1. The user clicks the 'Report' button on the post. 2. The user selects a reason for reporting (e.g., spam, abuse). 3. The system logs the report and notifies administrators. |
| Description of the Alternative Sequence | If the content is already removed, the system notifies the user that the report cannot be submitted. |
| Postconditions | The flagged content appears in the moderation queue for review. |

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| UC Name | UC-3005 – Admin Moderates Flagged Content |
| Summary | Administrators review and take action on flagged posts. |
| Preconditions | An admin is logged in and there is at least one flagged item in the system. |
| Description of the Main Sequence | 1. The admin navigates to the 'Moderation Dashboard.' 2. The admin reviews the list of flagged posts. 3. The admin chooses to dismiss the report or remove the post (and potentially take further action against the user). |
| Description of the Alternative Sequence |  |
| Postconditions | The flagged post’s status is updated (e.g., approved, removed, or escalated). |

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| UC Name | UC-3006 – User Bookmarks a Question |
| Summary | Users can mark questions as favorites or bookmarks for later reference. |
| Preconditions | The user is logged in and the question exists. |
| Description of the Main Sequence | 1. The user clicks the 'Bookmark' icon on a question. 2. The system saves the bookmark association. |
| Description of the Alternative Sequence | If the user clicks the bookmark icon again, the bookmark is removed. |
| Postconditions | The bookmarked question is accessible from the user’s profile. |

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| UC Name | UC-3007 – User Subscribes to a Question |
| Summary | Users can subscribe to notifications (email or in-app) for updates on a particular question. |
| Preconditions | The user is logged in and the question exists. |
| Description of the Main Sequence | 1. The user clicks 'Subscribe' on the question page. 2. The system records the subscription and sends notifications when new answers are posted. |
| Description of the Alternative Sequence | The user can later unsubscribe using a similar process. |
| Postconditions | The user receives notifications on updates to the question. |

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| UC Name | UC-3008 – User Submits an Audio Answer (Optional) |
| Summary | In addition to video and text answers, users can submit an audio-only answer. |
| Preconditions | The user is logged in and the question exists. |
| Description of the Main Sequence | 1. The user selects the question to answer. 2. The user records or uploads an audio file. 3. The system processes and stores the audio answer. |
| Description of the Alternative Sequence | If the audio format is unsupported, the system displays an error message. |
| Postconditions | The audio answer is published alongside other answer types. |

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| UC Name | UC-3009 – User Edits/Trims Video Before Posting (Optional) |
| Summary | Users can perform basic editing (e.g., trimming) on a recorded video before submitting it. |
| Preconditions | The user is logged in and a video file is recorded or uploaded. |
| Description of the Main Sequence | 1. After recording/uploading, the system provides a simple editing interface. 2. The user selects the start and end points for the video. 3. The user confirms the edit, and the system saves the trimmed version. |
| Description of the Alternative Sequence | If the user cancels editing, the original video is retained. |
| Postconditions | The edited video is stored and linked to the corresponding answer. |

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| UC Name | UC-3010 – Admin Manages User Accounts |
| Summary | Administrators can ban, suspend, or reinstate user accounts based on policy violations. |
| Preconditions | An admin is logged in. |
| Description of the Main Sequence | 1. The admin navigates to the 'User Management' section. 2. The admin selects a user account to manage. 3. The admin chooses an action (ban, suspend, or reinstate). 4. The system updates the user’s status accordingly. |
| Description of the Alternative Sequence |  |
| Postconditions | The affected user’s access is modified as per the admin’s action. |

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| UC Name | UC-3011 – Admin/User Views Analytics (Optional) |
| Summary | Administrators (or users for personal insights) can view usage metrics such as total questions, answers, and top contributors. |
| Preconditions | Relevant analytics data has been collected. |
| Description of the Main Sequence | 1. The admin or user navigates to the 'Analytics Dashboard.' 2. The system displays charts and key statistics. |
| Description of the Alternative Sequence | If no data is available, the system displays placeholders or a notification. |
| Postconditions | Analytics information is available for review and decision-making. |