



BLOGGING PLATFORM

# CONNECTCO



## SOFTWARE ENGINEERING (IT - 314)

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# IT313 Software Engineering

## Non-Functional Testing



### Software Engineering Project

#### Group 23

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**Blackbox testing** is a software testing technique where the internal structure, code, and implementation of the system are not known to the tester. Instead, the tester evaluates the software by providing inputs and analyzing the corresponding outputs, focusing solely on the functionality of the application. This technique ensures that the software meets the specified requirements and behaves as expected in various scenarios. It is particularly useful for validating user interfaces, APIs, and other external-facing components of the system.

**Equivalence class partitioning** is a complementary method often used in blackbox testing to reduce the number of test cases while maintaining coverage. It involves dividing the input data into partitions or "classes," where each class represents a set of inputs that are expected to produce similar results. By testing just one representative from each equivalence class, testers can efficiently cover a wide range of input scenarios without redundancy. This approach enhances test efficiency and helps identify defects that may arise from specific input conditions.

## 1. Login Page

### EQUIVALENCE CLASS IDS

ECIDs	Description
EC001	Valid email (should contain @ symbol)
EC002	Valid password (should be 6-20 characters and should have 1 uppercase and 1 lowercase letter)
EC003	Invalid Email
EC004	Invalid password
EC005	Empty email
EC006	Empty password
EC007	Incorrect password

### TEST CASES WITH ECID

Test case Id	Test scenario	Test case description	Test data	Expected result	Acceptance criteria	Ecids covered
TC001	Valid login	User enter correct email and password	email: <a href="mailto:crn7forlife@gmail.com">crn7forlife@gmail.com</a> password:Aditya1#	Login successful and user is directed to home page	System allows login	EC001,EC002
TC002	Invalid email	User enters invalid email format	Email:1234 Password:Aditya1#	Error message is displayed: invalid email	System should not allow login with invalid email	EC003,EC002

TC003	Invalid password	User enter invalid password format	Email: <a href="mailto:maresh@gmail.com">maresh@gmail.com</a> password:1234	Error message is displayed: invalid password	System should not allow login with invalid password	EC004,EC001
TC004	Empty email	User does not enter email	Email: "" password:Aditya1#	Error message is displayed: enter email	System should not allow login with empty email field	EC005,EC002
TC005	Empty password	User does not enter password	email: <a href="mailto:maresh@gmail.com">maresh@gmail.com</a> password: ""	Error message is displayed: incorrect password format	System should not allow login with empty password field	EC006,EC001
TC006	Incorrect password	User enters incorrect password	email: <a href="mailto:crn7forlife@gmail.com">crn7forlife@gmail.com</a> password:Aditya2#	Error message is displayed: Incorrect password	System should not allow login with incorrect password	EC007,EC001

## 2. Sign Up Page

### EQUIVALENCE CLASS IDS

ECIDs	Description
EC001	Valid name
EC002	Valid email (should contain @ symbol)
EC003	Valid password (should be 6-20 characters and should have 1 uppercase and 1 lowercase letter)
EC004	Invalid email
EC005	Invalid password
EC006	Empty email
EC007	Empty password

EC008	Empty name
EC009	Short name
EC010	Email exists

#### TEST CASES WITH ECID

Test case Id	Test scenario	Test case description	Test data	Expected result	Acceptance criteria	Ecids covered
TC001	Valid login	User enter valid format of name, email and password	Name: Aditya Iyer email: <a href="mailto:crn7forlife@gmail.com">crn7forlife@gmail.com</a> password:Aditya1#	Signup successful and user account is created and is directed to home page	System allows signup	EC001,EC002,EC003
TC002	Invalid email	User enters invalid email format	Name: Aditya Email:1234 Password: Aditya1#	Error message is displayed: invalid email	System should not allow signup with invalid email	EC001,EC003,EC004
TC003	Invalid password	User enter invalid password format	Name: Aditya Email: <a href="mailto:maahesh@gmail.com">maahesh@gmail.com</a> password:1234	Error message is displayed: invalid password	System should not allow signup with invalid password	EC001,EC002,EC005
TC004	Empty email	User does not enter email	Name: Aditya Email: "" password:Aditya1#	Error message is displayed: enter email	System should not allow signup with empty email field	EC001,EC003,EC006
TC005	Empty	User does not	Name:	Error	System should not	EC001,EC002,EC

	password	enter password	Aditya email: <a href="mailto:maahesh@gmail.com">maahesh@gmail.com</a> password:""	message is displayed: incorrect password format	allow signup with empty password field	007
TC006	Empty name	User does not enter name	name:"" email: <a href="mailto:crn7forlife@gmail.com">crn7forlife@gmail.com</a> Password: Aditya2#	Error message is displayed: Name should be atleast 3 characters long	System should not allow signup with empty name field	EC002,EC003,EC008
TC007	Short name	User enter short name	name:"ad" email: <a href="mailto:crn7forlife@gmail.com">crn7forlife@gmail.com</a> Password: Aditya2#	Error message is displayed: Name should be atleast 3 characters long	System should not allow signup with short name	EC002,EC003,EC009
TC008	Email exists	User enters email that already exists	name:"Aditya" email: <a href="mailto:crn7forlife@gmail.com">crn7forlife@gmail.com</a> Password: Aditya1#	Error message is displayed: Email already exists	System should not allow signup with email that already exists	EC001,EC003,EC010

### 3. Blog Page

#### EQUIVALENCE CLASS IDs

Equivalence Class ID	Description
EC301	Valid like action by a logged-in user
EC302	Invalid like action by a logged-out user
EC303	Valid share action by a logged-in or logged-out user

EC304	Valid blog with comments
EC305	Blog with no comments
EC306	Invalid blog ID for fetching comments
EC307	Valid comment by a logged-in user
EC308	Invalid comment (empty or exceeding character limit)
EC309	Valid reply to a comment
EC310	Invalid reply (empty input or exceeding character limit)
EC311	Valid hide replies action
EC312	Valid load replies action
EC313	Authorized comment deletion
EC314	Unauthorized comment deletion attempt
EC315	Valid similar blogs fetch

#### TEST CASES WITH ECID

Test Case ID	Test Scenario	Test Case Description	Test Data	Expected Result	Acceptance Criteria	Equivalence Classes Covered
TC301	Likes and Shares	Verify like functionality for logged-in user	User: Logged In	Blog shows "Liked" state; like count increases by 1	Blog can be liked, and the UI updates correctly.	EC301

TC302	Likes and Shares	Test like functionality for logged-out user	User: Logged Out	Action is denied with a prompt to log in	Unauthorized users cannot perform the action.	EC302
TC303	Likes and Shares	Verify share functionality for logged-out user	User: Logged Out	Share link or modal is presented	User can share a blog, if permitted.	EC303
TC304	Fetching Comments	Verify comments load successfully	Blog with 10 comments	Comments are displayed below the blog	Comments are loaded and displayed correctly.	EC304
TC305	Fetching Comments	Verify comments for a blog with no comments	Blog with Comments: 0	Message: "No comments available"	No comments message is shown.	EC305
TC306	Fetching Comments	Handle non-existent blog comments request	Blog (non-existent)	Error message: "Blog not found"	System handles invalid blog IDs gracefully.	EC306
TC307	Creating Comment Cards	Post a valid comment	Comment Text: "Great Post!"	Comment appears under the blog	New comment is displayed correctly.	EC307
TC308	Creating Comment Cards	Handle empty comment input	Comment Text: ""	Error message: "Comment cannot be empty"	Empty comments are prevented.	EC308
TC309	Replying to Comments	Post a valid reply to a comment	Reply Text: "Thanks for the feedback!"	Reply appears nested under the comment	Reply is displayed correctly.	EC309
TC310	Replying to Comments	Handle empty reply	Reply Text: ""	Error message:	Empty replies are	EC310



		input		"Reply cannot be empty"	prevented.	
TC311	Hiding & Loading Replies	Verify hiding replies	with 5 replies	Replies are hidden; "Show Replies" button appears	Replies are hidden successfully.	EC311
TC312	Hiding & Loading Replies	Verify loading hidden replies	Action: Load Replies	Replies are displayed	Replies are loaded successfully.	EC312
TC313	Deleting Comments	Delete a comment as the comment owner	User: Comment Owner	Comment is removed; success message: "Comment deleted"	Only owners can delete their comments.	EC313
TC314	Deleting Comments	Prevent unauthorized comment deletion	User: Non-Owner	Error message: "Unauthorized action"	Unauthorized deletion attempts are blocked.	EC314
TC315	Similar Blogs	Fetch and display similar blogs	Blog with tags: [Tech, AI]	3 similar blogs with the same tags are displayed	Similar blogs are fetched successfully.	EC315

## 4. Change Password

### EQUIVALENCE CLASS IDs

Equivalence Class ID	Description
EC001	Correct current password and valid new password
EC002	Incorrect current password and any new password
EC003	Current password is empty or not entered (invalid current password)
EC004	New password is empty or not entered
EC005	New password matches the current password (invalid case)
EC006	New password is too short (less than 6 characters)
EC007	New password is too long (greater than 20 characters)
EC008	New password contains no uppercase letters
EC009	New password contains no lowercase letters
EC010	New password contains no digits
EC011	New password contains special characters
EC012	Valid current password but system not logged in

### TEST CASES WITH ECID

Test Case ID	Test Scenario	Test Case Description	Test Data	Expected Result	Acceptance Criteria	Equivalence Classes Covered
TC001	Valid Change Password	Verify change password with correct current password and valid new password.	Current Password: Password123 New Password: NewPassword123	Password is successfully changed, user is logged in with new password.	System confirms successful password change and logs user in.	EC001, EC011
TC002	Incorrect Current Password	Verify change password with	Current Password: WrongPassword New Password: NewPassword123	Error message: "Incorrect current	System prevents password change with	EC002

		incorrect current password and valid new password.		password."	incorrect current password.	
TC003	Empty Current Password	Verify change password with empty current password.	Current Password: New Password: NewPassword123	Error message: "Current password is required."	System prevents password change when current password is not entered.	EC003
TC004	Empty New Password	Verify change password with valid current password and empty new password.	Current Password: Password123New Password:	Error message: "New password is required."	System prevents password change when new password is not entered.	EC004
TC005	New Password Matches Current Password	Verify change password with new password same as current password.	Current Password: Password123New Password: Password123	Error message: "New password cannot be the same as the current password."	System prevents password change if new password matches current password.	EC005
TC006	New Password Too Long	Verify change password with valid current password and too long new password.	Current Password: Password123New Password: ThisIsWayTooLongPassword123	Error message: "New password must be at most 20 characters long."	System prevents password change if new password exceeds length limit.	EC006
TC007	New Password No Uppercase	Verify change password with valid current password and no uppercase in new password.	Current Password: Password123New Password: newpassword123	Error message: "New password must contain at least one uppercase letter."	System prevents password change if new password lacks uppercase letter.	EC007
TC008	New Password	Verify change	Current Password: Password123New	Error message:	System prevents	EC008

	No Lowercase	password with valid current password and no lowercase in new password.	Password: NEWPASSWORD123	"New password must contain at least one lowercase letter."	password change if new password lacks lowercase letter.	
TC009	New Password No Digits	Verify change password with valid current password and no digits in new password.	Current Password: Password123New Password: NewPassword	Error message: "New password must contain at least one digit."	System prevents password change if new password lacks digits.	EC009
TC010	New Password Invalid Characters	Verify change password with valid current password and invalid characters in new password.	Current Password: Password123New Password: New#Password123	Error message: "New password contains invalid characters."	System prevents password change if new password contains invalid characters.	EC010
TC011	Not Logged In (System Validation)	Verify change password when user is not logged in.	Current Password: Password123New Password: NewPassword123	Error message: "You must be logged in to change your password."	System prevents password change if the user is not logged in.	EC012

## 5. Edit profile page

### Equivalence Classes (IDs)

Equivalence Class ID	Description
EC01	Valid image file (correct format and size within limit)
EC02	Invalid image file format
EC03	Image file exceeding size limit
EC04	Valid username (unique, alphanumeric, and allowed special characters)
EC05	Username with special characters
EC06	Non-unique username

EC07	Valid bio (up to 150 characters)
EC08	Bio exceeding 150-character limit
EC09	Valid social handle link
EC10	Invalid social handle link
EC11	Full name is displayed correctly
EC12	Email is displayed correctly
EC13	Full name and email are non-editable
EC14	Missing or incorrect full name/email

## Test cases with Ecid

Test Case ID	Test Scenario	Test Case Description	Test Data	Expected Result	Acceptance Criteria	Equivalence Classes Covered
TC01	Upload Profile Picture	Upload valid profile picture	Image file: profile.jpg (size: 2MB, format: .jpg)	Profile picture is uploaded successfully.	The system allows uploading of valid images within size and format limits.	EC01
TC02	Upload Profile Picture	Upload unsupported image format	Image file: profile.tiff	Error message: "Unsupported file format."	The system rejects unsupported file formats with an appropriate error message.	EC02
TC03	Upload Profile Picture	Upload file exceeding size limit	Image file: large_image.jpg (size: 6MB)	Error message: "File size exceeds the allowed limit of 5MB."	The system enforces the file size limit effectively.	EC03
TC04	Edit Username	Enter valid username	Input: "john_doe"	Username is updated successfully.	The system accepts a unique, valid username.	EC04
TC05	Edit Username	Enter invalid username with special characters	Input: "john@doe!"	Error message: "Username can only contain letters, numbers, underscores, or periods."	The system rejects invalid usernames with disallowed special	EC05

					characters.	
TC06	Edit Username	Enter non-unique username	Input: "existing_user"	Error message: "Username already exists."	The system enforces username uniqueness.	EC06
TC07	Edit Bio	Enter valid bio within the 150-character limit	Input: "Tech blogger sharing insights and ideas."	Bio is updated successfully.	The system accepts bio within the character limit.	EC07
TC08	Edit Bio	Enter bio exceeding the 150-character limit	Input: "Lorem ipsum dolor sit amet, consectetur adipiscing elit. Vestibulum volutpat felis sit amet orci accumsan, nec molestie lorem convallis."	Error message: "Bio cannot exceed 150 characters."	The system enforces the bio character limit.	EC08
TC09	Edit Social Handle	Enter valid social handle link	Input: " <a href='\"https://twitter.com/user\"'>https://twitter.com/user</a> "	Social handle is updated successfully.	The system accepts valid social media links.	EC09
TC10	Edit Social Handle	Enter invalid social handle link	Input: "htt://invalid_link"	Error message: "Please enter a valid URL."	The system validates social handle URL format.	EC10
TC11	Display Full Name	Verify full name is displayed correctly	Database value: "John Doe"	Full name "John Doe" is displayed correctly.	Full name should display as per database value.	EC11
TC12	Display Email Address	Verify email address is displayed correctly	Database value: " <a href='\"mailto:user@example.com\"'>user@example.com</a> "	Email " <a href='\"mailto:user@example.com\"'>user@example.com</a> " is displayed correctly.	Email should display as per database value.	EC12
TC13	Full Name Non-Editable	Verify full name is non-editable	-	The full name field is read-only and cannot be edited.	The full name field should not allow any edits or text input.	EC13
TC14	Email Non-Editable	Verify email address is non-editable	-	The email address field is read-only and cannot be edited.	The email address field should not allow any edits or text	EC13

					input.	
TC15	Handle Missing Full Name	Test behavior when full name is missing or incorrect	Database value: NULL or invalid value	Error message: "Full name not available." Alternatively, a placeholder value like "N/A" is displayed.	The system gracefully handles missing or incorrect full name.	EC14
TC16	Handle Missing Email	Test behavior when email is missing or incorrect	Database value: NULL or invalid value	Error message: "Email not available." Alternatively, a placeholder value like "N/A" is displayed.	The system gracefully handles missing or incorrect email address.	EC14

## 6. Notification

### Equivalence Classes (IDs)

Equivalence Class ID	Description
EC-001	Valid like notification
EC-002	Valid comment notification
EC-003	Valid reply notification
EC-004	No notification for self-action (e.g., liking or commenting on own post)
EC-005	Notification system gracefully handles invalid post/comment IDs
EC-006	Notifications are delivered in real-time
EC-007	No duplicate notification for editing a comment

### Test Cases With Ecid

Test Case ID	Test Scenario	Test Case Description	Test Data	Expected Result	Acceptance Criteria	Equivalence Classes Covered
TC-001	Notification for Like	Verify post owner receives a notification for a valid like	Post ID: 101, User: Zeel Ghori(Liker)	Post owner (Zeel Ghori try) receives a notification about John's like	Notification is sent successfully to the owner	EC-001
TC-002	Notification for Comment	Verify post owner receives a notification	Post ID: 102, User: Zeel Ghori (Commenter),	Post owner (Zeel Ghori try) receives a notification	Notification is sent successfully for valid	EC-002

		for a valid comment	Comment: "Nice post!"	about Sarah's comment	comments	
TC-003	Notification for Reply	Verify commenter receives notification for a valid reply	Comment ID: 201, Replier: Zeel ghori, Reply: "I agree!"	Original commenter receives notification about Zeel Ghori's reply	Notification is sent successfully for valid replies	EC-003
TC-004	Notification for Own Action	Verify user does not receive notification for their own comment	Post ID: 103, User: Zeel Ghori , Comment: "My own post update."	No notification is sent	System prevents self-notifications	EC-004
TC-005	Notification System Stability	Verify notification is not sent for an invalid post ID	Post ID: 999 (nonexistent), User: Zeel Ghori	No notification is sent	System handles invalid post IDs gracefully	EC-005
TC-006	Notification Timing	Verify notifications are sent in real-time	Post ID: 104, User: Zeel Ghori(Liker), Commenter: Zeel Ghori try	Notification is delivered instantly	Notifications are generated and sent with minimal delay	EC-006
TC-007	Notification for Edited Comment	Verify notification is not duplicated for editing a comment	Comment ID: 202, Original Comment: "Great!", Edited Comment: "Amazing!"	Only one notification is sent	System prevents duplicate notifications for the same comment	EC-007
TC-009	Notification for Multiple Actions	Verify notifications are sent for multiple valid actions (like, comment, reply)	Post ID: 105, Liker: Tom, Commenter: Zeel Ghori, Replier: Zeel Ghori try	Post owner receives notifications for all actions	All valid notifications are sent	EC-001, EC-002, EC-003



## 7. Managing Blog Posts

### Equivalence Classes (IDs)

Equivalence Class ID	Description
EC-001	Valid search for existing blogs
EC-002	Invalid search query (e.g., no matching blogs)
EC-003	Display published blogs with correct details (title, date, description)
EC-004	Show correct stats for published blogs (likes, comments, reads)
EC-005	Successfully edit a published blog
EC-006	Successfully delete a published blog
EC-007	Display draft blogs with correct details (title, date, description)
EC-008	Successfully edit a draft blog
EC-009	Successfully delete a draft blog
EC-010	Error when trying to edit/delete non-existent or invalid blog ID

### Test Cases With Ecid

Test Case ID	Test Scenario	Test Case Description	Test Data	Expected Result	Acceptance Criteria	Equivalence Classes Covered
TC-001	Blog Search	Verify valid search results for a matching query	Query: "Tech Trends", Blogs: 3 matching blogs available	List of 3 blogs with matching titles/descriptions is displayed	Search results should match query input	EC-001
TC-002	Blog Search	Verify no results for a query with no matching blogs	Query: "Nonexistent", Blogs: No matches available	"No results found" message is displayed	System correctly handles no matches	EC-002
TC-003	Published Blogs Display	Verify published blogs display correct title, date, and description	Published Blogs: Title="Tech Blog", Date=01/01/2024, Description="..."	Title, date, and description match the database	Published blogs should display accurate metadata	EC-003

TC-004	Published Blog Stats	Verify stats (likes, comments, reads) for a published blog are displayed	Blog ID: 101, Likes=100, Comments=20, Reads=500	Blog stats are displayed correctly	Stats should match the database	EC-004
TC-005	Edit Published Blog	Verify user can successfully edit a published blog	Blog ID: 102, New Title: "Updated Title", New Description: "..."	Blog title and description are updated successfully	Blog is updated and changes are reflected	EC-005
TC-006	Delete Published Blog	Verify user can delete a published blog	Blog ID: 103	Blog is deleted successfully	Blog no longer appears in published blogs list	EC-006
TC-007	Draft Blogs Display	Verify draft blogs display correct title, date, and description	Draft Blogs: Title="Draft Blog", Date=02/01/2024, Description="..."	Title, date, and description match the database	Draft blogs should display accurate metadata	EC-007
TC-008	Edit Draft Blog	Verify user can successfully edit a draft blog	Draft ID: 201, New Title: "Draft Update", New Description: "..."	Draft title and description are updated successfully	Draft is updated and changes are reflected	EC-008
TC-009	Delete Draft Blog	Verify user can delete a draft blog	Draft ID: 202	Draft is deleted successfully	Draft no longer appears in drafts list	EC-009
TC-010	Invalid Blog Edit/Delete	Verify error is displayed for invalid blog ID during edit/delete	Blog ID: 999 (nonexistent)	Error message: "Blog not found"	System correctly handles invalid blog IDs	EC-010

## 8. Themes

### Equivalence Classes (IDs)

Equivalence Class ID	Description
EC1	Valid Dark Theme: Dark image, light logo, dark colors, dark banner.
EC2	Valid Light Theme: Light image, dark logo, light colors, light banner.
EC3	Transition from valid Dark Theme to valid Light Theme.
EC4	Transition from valid Light Theme to valid Dark Theme.
EC5	Persistence of valid theme states (Dark/Light).
EC6	Default state: Light Theme.
EC7	Banner equivalence in Dark Theme.
EC8	Banner equivalence in Light Theme.
EC9	Logo equivalence in Dark Theme.
EC10	Logo equivalence in Light Theme.

#### Test Cases with Equivalence Class References

Test Case ID	Test Scenario	Test Case Description	Test Data	Expected Result	Acceptance Criteria	Equivalence Classes Covered
TC01	Validate Dark Theme	Verify components when the user selects the Dark Theme.	User selects "Dark Theme".	Image, logo, color scheme, and banner adapt to dark-themed styling.	All components transition to a dark appearance with proper alignment and readability.	EC1, EC7, EC9
TC02	Validate Light Theme	Verify components when the user selects the Light Theme.	User selects "Light Theme".	Image, logo, color scheme, and banner adapt to light-themed styling.	All components transition to a light appearance with proper alignment and readability.	EC2, EC8, EC10
TC03	Theme Transition: Dark to Light	Validate transition from Dark to Light Theme.	Switch from Dark to Light.	All components change from dark styling to light styling seamlessly.	Transition occurs smoothly without flickering or layout issues; all elements align to light theme.	EC3, EC8, EC10
TC04	Theme Transition: Light to Dark	Validate transition from Light to Dark Theme.	Switch from Light to Dark.	All components change from light styling to dark styling seamlessly.	Transition occurs smoothly without flickering or layout issues; all elements align to dark theme.	EC4, EC7, EC9
TC05	Persist Theme	Verify theme persistence	Select a theme,	Selected theme persists	User's theme preference is	EC5

	Preference	across sessions.	reload.	even after the user reloads or reopens the website.	saved in cookies/local storage and restored upon next visit.	
TC06	Default Theme	Validate default theme on first visit.	First-time visit.	Website defaults to a predefined theme (e.g., Light Theme).	The default theme is consistent with the product requirements (e.g., Light Theme).	EC6
TC07	Banner Adaptation in Dark Theme	Verify banner adaptation in Dark Theme.	Select Dark Theme.	Banner changes to match the dark color scheme (e.g., low brightness, dark colors).	Banner appears consistent with Dark Theme without visual inconsistencies.	EC7
TC08	Banner Adaptation in Light Theme	Verify banner adaptation in Light Theme.	Select Light Theme.	Banner changes to match the light color scheme (e.g., high brightness, light colors).	Banner appears consistent with Light Theme without visual inconsistencies.	EC8
TC09	Logo Display in Dark Theme	Validate logo appearance in Dark Theme.	Select Dark Theme.	Logo changes to a version optimized for a dark background (e.g., light-colored logo).	Logo must contrast against the dark background and remain fully visible.	EC9
TC10	Logo Display in Light Theme	Validate logo appearance in Light Theme.	Select Light Theme.	Logo changes to a version optimized for a light background (e.g., dark-colored logo).	Logo must contrast against the light background and remain fully visible.	EC10

## 9. Edit blog post

### Equivalence Classes (IDs)

Equivalence Class IDs	Description
EC_01	Valid title length :1–255 characters.
EC_02	Invalid title : empty or exceeds max length.
EC_03	Valid content : non-empty, within limits.
EC_04	Invalid content : empty or unsupported format.
EC_05	Valid category : exists in database.
EC_06	Invalid category : non-existent or unrecognized.
EC_07	Valid tags : non-empty, correct format, within limits.
EC_08	Invalid tags : exceeds limit or contains invalid characters.
EC_09	Valid blog post ID (exists in the database).
EC_10	Invalid blog post ID (non-existent).
EC_11	User has permissions to perform the operation.
EC_12	User lacks permissions for the operation.
EC_13	Valid search keywords (matches blogs)
EC_14	Invalid or unmatched search keywords.

### Test Cases With Ecid

Test Case -id	Test scenario	Description	Test Data	Expected result	Acceptance criteria	ECIds covered
TC_01_01	Create Blog Post	Verify creating a blog post with valid data.	Title: "Test Blog", Content: "Sample content", Category: "Tech", Tags: ["Test", "Tech"]	Blog post created successfully and visible in the blog list.	The blog post should be created with correct data.	EC_01, EC_03, EC_05, EC_07
TC_01_02	Create Blog Post	Verify error for blog post with an empty title.	Title: "", Content: "Sample content", Category: "Tech", Tags: ["Test", "Tech"]	Error message: "Title cannot be empty."	Application should not allow blog creation without a valid title.	EC_02, EC_03, EC_05, EC_07
TC_02_01	Edit Blog Post	Verify editing an existing blog post with valid data.	Blog ID: 101, Title: "Updated Blog", Content: "Updated content", 	Blog post updated successfully.	Updates should be saved and reflected in the list.	EC_09, EC_01, EC_03, EC_05

Test Case -id	Test scenario	Description	Test Data	Expected result	Acceptance criteria	ECIds covered
			Category : "Science"			
TC_02_02	Edit Blog Post	Verify error for editing a non-existent blog post.	Blog ID: 9999, Title: "Updated Blog", Content: "Updated content"	Error message: "Blog post not found."	Application should handle non-existent blog IDs gracefully.	EC_10, EC_01, EC_03
TC_03_01	Delete Blog Post	Verify deleting an existing blog post.	Blog ID: 101	Blog post deleted successfully and removed from the list.	The blog post should no longer be retrievable.	EC_09, EC_11
TC_03_02	Delete Blog Post	Verify error for deleting a non-existent blog post.	Blog ID: 9999	Error message: "Blog post not found."	Application should handle attempts to delete non-existent blogs gracefully.	EC_10

Test Case -id	Test scenario	Description	Test Data	Expected result	Acceptance criteria	ECIds covered
TC_04_01	View Blog Post	Verify viewing an existing blog post.	Blog ID: 101	Blog content displayed successfully.	Blog post content should load completely and correctly.	EC_09
TC_04_02	View Blog Post	Verify error for viewing a private blog without access.	Blog ID: 102, User Role: Guest	Error message: "Access denied."	Private blogs should not be accessible to unauthorized users.	EC_10
TC_05_01	Search Blog Post	Verify search functionality with valid keywords.	Search Query: "Tech"	List of blog posts containing "Tech" in title or content.	Relevant blog posts should appear in the search results.	EC_13
TC_05_02	Search Blog Post	Verify no results for a search query with no matching blogs.	Search Query: "NonExistentKeyword"	Message : "No results found."	Application should handle no-results scenarios gracefully.	EC_14



