



# IT314 SOFTWARE ENGINEERING

## Unit Testing

**Group ID 6**  
**Topic: Online Blogging Platform**

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**Under  
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# 1. Login Functions:

## • LoginHandler

```

PS C:\Users\goenk\OneDrive\Desktop\IT314-G6-Blogging-Platform> npx jest loginHandler.early.test.js
PASS  utils/loginHandlers.early.test/loginHandler.early.test.js
  loginHandler() loginHandler method
    Happy Paths
      ✓ should successfully log in a user with valid email and password (2 ms)
    Edge Cases
      ✓ should throw an error if email is missing (1 ms)
      ✓ should throw an error if password is missing (1 ms)
      ✓ should throw an error if signInWithEmailAndPassword fails
      ✓ should throw an error if both email and password are missing
      ✓ should throw an error if email is invalid format
      ✓ should throw an error if password is too short

Test Suites: 1 passed, 1 total
Tests:       7 passed, 7 total
Snapshots:   0 total
Time:        0.999 s, estimated 1 s
Ran all test suites matching /loginHandler.early.test.js/i.
PS C:\Users\goenk\OneDrive\Desktop\IT314-G6-Blogging-Platform> 

```

## • SignInWithGoogle

```

PS C:\Users\goenk\OneDrive\Desktop\IT314-G6-Blogging-Platform> npx jest signInWithGoogle.early.test.js
PASS  utils/loginHandlers.early.test/signInWithGoogle.early.test.js
  signInWithGoogle() signInWithGoogle method
    Happy paths
      ✓ should sign in successfully with Google and return user data (2 ms)
    Edge cases
      ✓ should throw an error if the email does not exist in the database (1 ms)
      ✓ should throw a generic error if signInWithPopup fails (1 ms)
      ✓ should throw a generic error if getDocs fails
      ✓ should throw an error if auth is not provided
      ✓ should throw an error if db is not provided
      ✓ should throw an error if both auth and db are not provided

Test Suites: 1 passed, 1 total
Tests:       7 passed, 7 total
Snapshots:   0 total
Time:        0.918 s, estimated 1 s

```

## 2. Register Functions:

- signUpHandler

```
PASS  utils/registerHandlers.early.test/signupHandler.early.test.js
signupHandler() signupHandler method
Happy Paths
  ✓ should create a user and save data to Firestore when valid inputs are provided (25 ms)
Edge Cases
  ✓ should not proceed if email is missing
  ✓ should not proceed if password is missing
  ✓ should not proceed if username is missing
  ✓ should set error message for weak password (1 ms)
  ✓ should set error message for email already in use (1 ms)
  ✓ should set error message for invalid email format
  ✓ should set a generic error message for unexpected errors (6 ms)

Test Suites: 1 passed, 1 total
Tests:      8 passed, 8 total
```

- signInWithGoogle

```
PASS  utils/registerHandlers.early.test/signInWithGoogle1.early.test.js
signInWithGoogle() signInWithGoogle method
Happy Paths
  ✓ should sign in a user with Google and store data in Firestore if the user is new (31 ms)
  ✓ should sign in a user with Google and not store data if the user already exists (4 ms)
Edge Cases
  ✓ should handle errors during Google sign-in and set an error message (13 ms)
  ✓ should handle errors when checking if a user exists in Firestore (5 ms)
  ✓ should handle errors when storing new user data in Firestore (4 ms)
  ✓ should handle case where user cancels Google sign-in
  ✓ should handle case where user denies Google sign-in permissions

Test Suites: 1 passed, 1 total
Tests:      7 passed, 7 total
Snapshots:  0 total
Time:      0.94 s, estimated 1 s
```

### 3. Profile Functions:

- CheckUserNameAvailability

```
PASS  utils/profile.early.test/checkUsernameAvailability.early.test.js
checkUsernameAvailability() checkUsernameAvailability method
  Happy paths
    ✓ should return true when the username is available (2 ms)
    ✓ should return false when the username is not available
  Edge cases
    ✓ should return false when an error occurs during the query (110 ms)
    ✓ should trim the username before checking availability (1 ms)
    ✓ should handle empty username input gracefully
```

```
Test Suites: 1 passed, 1 total
Tests:       5 passed, 5 total
Snapshots:   0 total
Time:        1.268 s
```

- deleteOldProfileImage

```
PASS  utils/profile.early.test/deleteOldProfileImage.early.test.js
deleteOldProfileImage() deleteOldProfileImage method
  Happy Path
    ✓ should successfully delete the old profile image (8 ms)
  Edge Cases
    ✓ should handle error when deleting a non-existent image (27 ms)
    ✓ should handle empty profile image URL gracefully (1 ms)
    ✓ should handle null profile image URL gracefully (1 ms)
    ✓ should handle undefined profile image URL gracefully
    ✓ should handle profile image URL with only spaces gracefully
    ✓ should handle profile image URL with special characters gracefully (1 ms)
    ✓ should handle profile image URL with very long string gracefully (1 ms)
    ✓ should handle profile image URL with non-string type gracefully
```

```
Test Suites: 1 passed, 1 total
Tests:       9 passed, 9 total
Snapshots:   0 total
Time:        1.169 s, estimated 2 s
```

## • FollowUser

```
PS C:\Users\goenk\OneDrive\Desktop\IT314-G6-Blogging-Platform> npx jest profile.early.test/followUser.early.test.js
PASS utils/profile.early.test/followUser.early.test.js
  followUser() method
    Happy Paths
      ✓ should successfully follow a user and update follower and following counts (1 ms)
    Edge Cases
      ✓ should throw an error if userId is undefined (1 ms)
      ✓ should throw an error if currentUserId is undefined (1 ms)
      ✓ should throw an error if targetUsername is undefined
      ✓ should throw an error if followersCount is not a number
      ✓ should throw an error if followingCount is not a number
      ✓ should throw an error if setDoc fails (1 ms)

Test Suites: 1 passed, 1 total
Tests:       7 passed, 7 total
Snapshots:   0 total
Time:        0.89 s, estimated 3 s
```

## • getUserBlogs

```
PS C:\Users\goenk\OneDrive\Desktop\IT314-G6-Blogging-Platform> npx jest getUserBlogs.early.test.js
PASS utils/profile.early.test/getUserBlogs.early.test.js
  getUserBlogs()
    Happy paths
      ✓ should return a list of blogs for a valid userId (2 ms)
    Edge cases
      ✓ should return an empty array if no blogs are found for the userId
      ✓ should handle errors gracefully and throw an error (1 ms)
      ✓ should throw an error if userId is invalid
      ✓ should handle network issues gracefully and throw an error (1 ms)

Test Suites: 1 passed, 1 total
Tests:       5 passed, 5 total
```

## • getUserData

```
PASS utils/profile.early.test/getUserData.early.test.js
  getUserData() method
    Happy Paths
      ✓ should return user data when the document exists (2 ms)
    Edge Cases
      ✓ should throw an error when the document does not exist (1 ms)
      ✓ should handle errors thrown by getDoc gracefully (30 ms)
      ✓ should throw an error if Firestore is not initialized (11 ms)

Test Suites: 1 passed, 1 total
Tests:       4 passed, 4 total
Snapshots:   0 total
Time:        0.883 s, estimated 1 s
Ran all test suites matching /getUserData.early.test.js/i.
```

## • getUserDrafts

```
PS C:\Users\goenk\OneDrive\Desktop\IT314-G6-Blogging-Platform> npx jest getUserDrafts.early.test.js
PASS  utils/profile.early.test/getUserDrafts.early.test.js
  getUserDrafts() getUserDrafts method
    Happy paths
      ✓ should return an array of drafts when drafts exist for the user (1 ms)
      ✓ should return an empty array when no drafts exist for the user
    Edge cases
      ✓ should handle Firestore errors gracefully (1 ms)
      ✓ should handle a null userId gracefully
      ✓ should handle an empty string userId gracefully

Test Suites: 1 passed, 1 total
Tests:       5 passed, 5 total
Snapshots:   0 total
Time:        0.902 s, estimated 1 s
```

## • isLoggedIn

```
PS C:\Users\goenk\OneDrive\Desktop\IT314-G6-Blogging-Platform> npx jest isLoggedIn.early.test.js
PASS  utils/profile.early.test/isLoggedIn.early.test.js
  isLoggedIn() isLoggedIn method
    Happy paths
      ✓ should return true when a user is logged in (1 ms)
      ✓ should return false when no user is logged in
    Edge cases
      ✓ should return false when currentUser is undefined (1 ms)
      ✓ should return false when currentUser is an empty object
      ✓ should return false when currentUser is null

Test Suites: 1 passed, 1 total
Tests:       5 passed, 5 total
Snapshots:   0 total
Time:        0.919 s, estimated 1 s
```

## • unfollowUser

```
PS C:\Users\goenk\OneDrive\Desktop\IT314-G6-Blogging-Platform> npx jest profile.early.test/unfollowUser.early.test.js
PASS  utils/profile.early.test/unfollowUser.early.test.js
  unfollowUser() unfollowUser method
    Happy Paths
      ✓ should successfully unfollow a user and update follower and following counts (2 ms)
    Edge Cases
      ✓ should handle the case where userId is undefined
      ✓ should handle the case where currentUserId is undefined
      ✓ should handle the case where followersCount and followingCount are zero (1 ms)

Test Suites: 1 passed, 1 total
Tests:       4 passed, 4 total
Snapshots:   0 total
Time:        1.004 s
Ran all test suites matching /profile.early.test/unfollowUser.early.test.js/i.
```

## • updateUserProfile

```
PS C:\Users\goenk\OneDrive\Desktop\IT314-G6-Blogging-Platform> npx jest updateUserProfile.early.test.js
PASS utils/profile.early.test/updateUserProfile.early.test.js
  updateUserProfile() updateUserProfile method
    Happy paths
      ✓ should update user profile successfully with valid inputs (3 ms)
    Edge cases
      ✓ should handle empty name gracefully (1 ms)
      ✓ should handle empty bio gracefully (1 ms)
      ✓ should handle empty profileImage gracefully (1 ms)
      ✓ should handle empty username gracefully (1 ms)
      ✓ should throw an error if updateDoc fails (5 ms)
      ✓ should throw an error if userId is missing (8 ms)
      ✓ should throw an error if all fields are empty

Test Suites: 1 passed, 1 total
Tests: 8 passed, 8 total
Snapshots: 0 total
Time: 0.8 s, estimated 1 s
```

## • saveProfile

```
FAIL utils/profile.early.test/saveProfile.early.test.js
  saveProfile() saveProfile method
    Happy Path
      ✓ should save profile successfully with valid data (2 ms)
    Edge Cases
      ✓ should throw an error if username is missing (1 ms)
      ✓ should throw an error if age is missing (1 ms)
      ✗ should throw an error if username starts with a space (2 ms)
      ✓ should throw an error if user is not authenticated
      ✓ should handle errors from setDoc gracefully (34 ms)
```

• saveProfile() saveProfile method > Edge Cases > should throw an error if username starts with a space

```
assert.rejects(received, expected)
```

Expected value rejects to:

```
{"message": "Username cannot start with a space."}
```

Received:

```
undefined
```

Message:

```
Missing expected rejection.
```

Difference:

```
Comparing two different types of values. Expected object but received undefined.
```

```
103 |
104 |   // Act & Assert
> 105 |   await assert.rejects(async () => {
      |   ^
106 |     await saveProfile(mockUser, profileData);
107 |   }, {
108 |     message: 'Username cannot start with a space.',
```

```
at Object.<anonymous> (utils/profile.early.test/saveProfile.early.test.js:105:7)
```

```
Test Suites: 1 failed, 1 total
Tests: 1 failed, 5 passed, 6 total
Snapshots: 0 total
Time: 0.993 s, estimated 1 s
```

## • uploadProfileImage

```
PS C:\Users\goenk\OneDrive\Desktop\IT314-G6-Blogging-Platform> npx jest uploadProfileImage.early.test.js
PASS utils/profile.early.test/uploadProfileImage.early.test.js
  uploadProfileImage() uploadProfileImage method
    Happy Paths
      ✓ should upload the image and return the download URL (2 ms)
    Edge Cases
      ✓ should handle an error during uploadBytes gracefully (5 ms)
      ✓ should handle an error during getDownloadURL gracefully (1 ms)
      ✓ should handle an empty file name gracefully (1 ms)
      ✓ should handle an invalid imageFile gracefully (9 ms)

Test Suites: 1 passed, 1 total
Tests:       5 passed, 5 total
Snapshots:   0 total
Time:        0.97 s, estimated 2 s
```

## 4. BlogAPI Functions:

### • checkIfLiked

```
PASS utils/blogAPI.early.test/checkIfLiked.early.test.js
  checkIfLiked() checkIfLiked method
    Happy paths
      ✓ should set isLiked to true if the blog is liked by the user (2 ms)
      ✓ should set isLiked to false if the blog is not liked by the user
    Edge cases
      ✓ should set isLiked to false if the user document does not exist (1 ms)
      ✓ should handle errors gracefully and not throw (30 ms)
      ✓ should set isLiked to false if likedBlogIds is undefined (1 ms)
      ✓ should set isLiked to false if likedBlogIds is an empty array
      ✓ should set isLiked to false if the user document exists but has no likedBlogIds field

Test Suites: 1 passed, 1 total
Tests:       7 passed, 7 total
Snapshots:   0 total
Time:        0.867 s, estimated 1 s
```

### • fetchSavedBlogs

```
PS C:\Users\goenk\OneDrive\Desktop\IT314-G6-Blogging-Platform> npx jest fetchSavedBlogs.early.test.js
PASS utils/blogAPI.early.test/fetchSavedBlogs.early.test.js
  fetchSavedBlogs() fetchSavedBlogs method
    Happy Paths
      ✓ should set saved blogs when user document exists (4 ms)
      ✓ should set an empty array if savedBlogs field is not present
    Edge Cases
      ✓ should handle non-existent user document gracefully
      ✓ should handle errors during fetching gracefully
      ✓ should handle null userId gracefully
      ✓ should handle undefined userId gracefully
      ✓ should handle empty userId gracefully (1 ms)
      ✓ should handle non-string userId gracefully

Test Suites: 1 passed, 1 total
Tests:       8 passed, 8 total
```



## • fetchBlogDetails

```
PS C:\Users\goenk\OneDrive\Desktop\IT314-G6-Blogging-Platform> npx jest fetchBlogDetails.early.test.js
PASS  utils/blogAPI.early.test/fetchBlogDetails.early.test.js
  fetchBlogDetails()
    Happy paths
      ✓ should fetch blog details and set like count when blog exists (2 ms)
    Edge cases
      ✓ should handle case where blog does not exist
      ✓ should handle errors gracefully (1 ms)

Test Suites: 1 passed, 1 total
Tests:       3 passed, 3 total
Snapshots:   0 total
Time:        1.24 s, estimated 2 s
```

## • handleDeleteBlog

```
PASS  utils/blogAPI.early.test/handleDeleteBlog.early.test.js
  handleDeleteBlog() method
    ✓ should delete the blog and navigate to profile when blogId is valid (26 ms)
    ✓ should handle errors during deletion and set error message (24 ms)
    ✓ should not call router.push if deletion fails (15 ms)
    ✓ should handle unexpected errors gracefully (9 ms)

Test Suites: 1 passed, 1 total
Tests:       4 passed, 4 total
Snapshots:   0 total
Time:        0.843 s, estimated 1 s
```

## • handleLike

```
PASS  utils/blogAPI.early.test/handleLike.early.test.js
  handleLike() handleLike method
    Happy paths
      ✓ should like a blog if not already liked (3 ms)
      ✓ should unlike a blog if already liked (1 ms)
    Edge cases
      ✓ should redirect to login if no current user
      ✓ should handle non-existent user document gracefully
      ✓ should handle non-existent blog document gracefully
      ✓ should handle errors during Firestore operations (36 ms)
      ✓ should handle invalid blogId gracefully (8 ms)
      ✓ should handle invalid currentUser gracefully
      ✓ should handle Firestore updateDoc errors gracefully (8 ms)

Test Suites: 1 passed, 1 total
Tests:       9 passed, 9 total
Snapshots:   0 total
Time:        0.912 s, estimated 1 s
```

- handleSave

```

PASS  utils/blogAPI.early.test/handleSave.early.test.js
  handleSave() handleSave method
    Happy paths
      ✓ should save a blog when the user is logged in and the blog is not already saved (3 ms)
      ✓ should remove a blog from saved when the user is logged in and the blog is already saved
    Edge cases
      ✓ should redirect to login if no user is logged in
      ✓ should handle errors when updating saved blogs (33 ms)
      ✓ should handle Firestore updateDoc errors gracefully (8 ms)

Test Suites: 1 passed, 1 total
Tests:       5 passed, 5 total
Snapshots:   0 total
Time:        0.892 s, estimated 1 s

```

- handleShare

Testing not supported in jest for this function

## 5. Comment Functions:

- addComments

```

PS C:\Users\goenk\OneDrive\Desktop\IT314-G6-Blogging-Platform> npx jest addComment.early.test.js
PASS  utils/comment_section.early.test/addComment.early.test.js
  addComment() addComment method
    Happy Path
      ✓ should add a comment with the current user details (2 ms)
      ✓ should add a comment with "Anonymous" username if no user is logged in (1 ms)
    Edge Cases
      ✓ should handle adding a comment with an empty content (1 ms)
      ✓ should handle adding a comment with a null parentId (1 ms)
      ✓ should throw an error if addDoc fails (1 ms)
      ✓ should handle adding a comment with a very long content
      ✓ should handle adding a comment with special characters in content
      ✓ should handle adding a comment with a non-string content

Test Suites: 1 passed, 1 total
Tests:       8 passed, 8 total
Snapshots:   0 total
Time:        0.841 s, estimated 1 s

```

## • addComments1

```
PASS  utils/comment_form.early.test/addComment1.early.test.js
addComment1() addComment1 method
  ✓ should add a new comment to the root level (14 ms)
  ✓ should add a reply to an existing comment (3 ms)
  ✓ should handle missing currentUser gracefully (8 ms)
  ✓ should handle Firestore addDoc failure gracefully (15 ms)
  ✓ should add a comment with a different parentId (3 ms)
  ✓ should add a comment with a different timestamp (3 ms)

Test Suites: 1 passed, 1 total
Tests:       6 passed, 6 total
Snapshots:   0 total
Time:        0.858 s, estimated 1 s
Ran all test suites matching /addComment1.early.test.js/i.
```

## • deleteComments

```
PS C:\Users\goenk\OneDrive\Desktop\IT314-G6-Blogging-Platform> npx jest deleteComment.early.test.js
PASS  utils/comment_section.early.test/deleteComment.early.test.js
deleteComment() deleteComment method
  Happy Paths
    ✓ should successfully delete a comment given valid blogId and commentId (2 ms)
  Edge Cases
    ✓ should handle the case where blogId is an empty string (1 ms)
    ✓ should handle the case where commentId is an empty string
    ✓ should handle the case where both blogId and commentId are empty strings
    ✓ should handle the case where deleteDoc throws an error (7 ms)

Test Suites: 1 passed, 1 total
Tests:       5 passed, 5 total
Snapshots:   0 total
Time:        0.801 s, estimated 1 s
```

## • fetchProfilePicture

```
PS C:\Users\goenk\OneDrive\Desktop\IT314-G6-Blogging-Platform> npx jest fetchProfilePicture.early.test.js
FAIL  utils/comment_form.early.test/fetchProfilePicture.early.test.js
fetchProfilePicture() fetchProfilePicture method
  ✗ should fetch and set the profile picture for a user (859 ms)
  ✗ should use default profile picture if user has no profile image (376 ms)
  ✓ should not fetch profile picture if already loaded
  ✓ should not fetch profile picture if username is loading (1 ms)
  ✓ should handle case where user data is not found (327 ms)
```

## • getUserByUsername

```
PS C:\Users\goenk\OneDrive\Desktop\IT314-G6-Blogging-Platform> npx jest getUserByUsername.early.test.js
FAIL utils/comment_form.early.test/getUserByUsername.early.test.js
  getUserByUsername() getUserByUsername method
    ✓ should handle empty username input gracefully
    ✓ should handle special characters in username input
    ✓ should return null when username is null
    ✓ should return null when username is undefined
  Happy paths
    ✓ should return user data when a user with the given username exists (3 ms)
  Edge cases
    ✓ should return null when no user with the given username exists (1 ms)
    ✗ should return null and log an error when an exception occurs
```

```
Test Suites: 1 failed, 1 total
Tests:       1 failed, 6 passed, 7 total
Snapshots:   0 total
Time:        0.82 s, estimated 1 s
```

## • fetchUserName

```
PS C:\Users\goenk\OneDrive\Desktop\IT314-G6-Blogging-Platform> npx jest fetchUsername.early.test.js
PASS utils/comment_form.early.test/fetchUsername.early.test.js (16.291 s)
  fetchUsername() fetchUsername method
    Happy Path
      ✓ should return the username when the user document exists (3 ms)
      ✓ should return an empty string if the username is not present in the user document (1 ms)
    Additional Edge Cases
      ✓ should return an empty string if userId is null (1 ms)
      ✓ should return an empty string if userId is undefined (1 ms)
      ✓ should return an empty string if userId is an empty string (1 ms)
    Edge Cases
      ✓ should return an empty string when the user document does not exist (1 ms)
      ✓ should throw an error if there is an issue fetching the user document (7 ms)
```

## • fetchComments

```
PS C:\Users\goenk\OneDrive\Desktop\IT314-G6-Blogging-Platform> npx jest fetchComments.early.test.js
PASS utils/comment_form.early.test/fetchComments.early.test.js
  fetchComments() fetchComments method
    Happy paths
      ✓ should fetch and set comments correctly for a given blogId (4 ms)
    Edge cases
      ✓ should handle no comments gracefully (1 ms)
      ✓ should handle comments with missing parentId (1 ms)
      ✓ should handle nested comments correctly (1 ms)
      ✓ should handle comments with invalid data gracefully

Test Suites: 1 passed, 1 total
Tests:       5 passed, 5 total
Snapshots:   0 total
Time:        0.873 s, estimated 1 s
```

## 6. WriteBlogFunctions

### • addhashtag

```
PS C:\Users\goenk\OneDrive\Desktop\IT314-G6-Blogging-Platform> npx jest addHashtag.early.test.js
PASS utils/writeblogFunctions.early.test/addHashtag.early.test.js
  addHashtag() addHashtag method
    Happy Path
      ✓ should add a new hashtag to the list when it is not already present (5 ms)
      ✓ should not add a hashtag if it is already present in the list (1 ms)
    Edge Cases
      ✓ should not add a hashtag if the input is an empty string
      ✓ should handle case sensitivity and add a hashtag if it differs in case (1 ms)
      ✓ should not add a hashtag if the input is null
      ✓ should not add a hashtag if the input is undefined

Test Suites: 1 passed, 1 total
Tests: 6 passed, 6 total
Snapshots: 0 total
Time: 1.475 s
```

### • fetchBlog

```
PS C:\Users\goenk\OneDrive\Desktop\IT314-G6-Blogging-Platform> npx jest fetchBlog.early.test.js
PASS utils/writeblogFunctions.early.test/fetchBlog.early.test.js
  fetchBlog() fetchBlog method
    Happy paths
      ✓ should fetch and set blog data when blog exists (4 ms)
    Edge cases
      ✓ should set error when blog does not exist (5 ms)
      ✓ should set error when an exception occurs (2 ms)
      ✓ should not attempt to fetch blog if blogId is not provided (2 ms)

Test Suites: 1 passed, 1 total
Tests: 4 passed, 4 total
Snapshots: 0 total
Time: 1.072 s
Ran all test suites matching /fetchBlog.early.test.js/i.
PS C:\Users\goenk\OneDrive\Desktop\IT314-G6-Blogging-Platform>
```

### • fetchDraft

```
PS C:\Users\goenk\OneDrive\Desktop\IT314-G6-Blogging-Platform> npx jest fetchDraft.early.test.js
FAIL utils/writeblogFunctions.early.test/fetchDraft.early.test.js
  fetchDraft() fetchDraft method
    Happy paths
      ✓ should fetch and set draft data correctly when draft exists (5 ms)
    Edge cases
      ✓ should handle non-existent draft gracefully (1 ms)
      ✓ should handle errors during fetching draft (1 ms)
      ✗ should return early if draftId is not provided (2 ms)
```

- `fetchDraft()` `fetchDraft` method > Edge cases > should return early if `draftId` is not provided

```
expect(jest.fn()).not.toHaveBeenCalled()
```

Expected number of calls: 0

Received number of calls: 3

1: {}, "drafts", "123"

2: {}, "drafts", "nonExistentId"

3: {}, "drafts", "123"

96 |

97 | // Assert: No calls should be made

> 98 | expect(doc).not.toHaveBeenCalled();

99 |

100 | expect(getDoc).not.toHaveBeenCalled();

101 | expect(setTitle).not.toHaveBeenCalled();

102 | expect(setContent).not.toHaveBeenCalled();

at Object.toHaveBeenCalled (utils/writeblogFunctions.early.test/fetchDraft.early.test.js:98:23)

Test Suites: 1 failed, 1 total

Tests: 1 failed, 3 passed, 4 total

Snapshots: 0 total

Time: 0.934 s, estimated 1 s

- `handleDeletedraft`

PS C:\Users\goenk\OneDrive\Desktop\IT314-G6-Blogging-Platform> npx jest handleDeleteDraft.early.test.js

PASS utils/writeblogFunctions.early.test/handleDeleteDraft.early.test.js

handleDeleteDraft() handleDeleteDraft method

Happy paths

✓ should delete the draft and reset the editor state (5 ms)

Edge cases

✓ should not attempt to delete if `draftId` is not provided (1 ms)

✓ should handle errors during draft deletion

Additional test cases

✓ should delete a draft with special characters in the ID

Test Suites: 1 passed, 1 total

Tests: 4 passed, 4 total

Snapshots: 0 total

Time: 0.869 s, estimated 2 s

- `handleSaveDraft`

PASS utils/writeblogFunctions.early.test/handleSaveDraft.early.test.js

handleSaveDraft()

✓ should save a new draft successfully (44 ms)

✓ should update an existing draft successfully (10 ms)

✓ should not save an empty draft

✓ should handle errors while saving (16 ms)

✓ should save a draft with special characters in the title and content (11 ms)

Test Suites: 1 passed, 1 total

Tests: 5 passed, 5 total

Snapshots: 0 total

Time: 0.968 s, estimated 1 s

- `handleSubmit`

```
FAIL utils/writeblogFunctions.early.test/handleSubmit.early.test.js
handleSubmit() handleSubmit method
  Happy paths
    ✓ should submit a new blog successfully (25 ms)
    ✓ should update an existing blog successfully (3 ms)
    ✗ should delete a draft after publishing a blog (4 ms)
  Edge cases
    ✓ should handle submission failure gracefully (1 ms)
    ✓ should handle empty title and content gracefully (1 ms)
```

```
Test Suites: 1 failed, 1 total
Tests:       1 failed, 4 passed, 5 total
Snapshots:   0 total
Time:        1.136 s, estimated 2 s
```

- `processContentImages`

```
PASS utils/writeblogFunctions.early.test/processContentImages.early.test.js
processContentImages() processContentImages method
  Happy Path
    ✓ should replace base64 image src with Firebase URL (3 ms)
    ✓ should return the same content if no base64 images are present
  Edge Cases
    ✓ should handle empty content gracefully
    ✓ should handle content with no images gracefully
    ✓ should return original content if image upload fails (23 ms)
```

```
Test Suites: 1 passed, 1 total
Tests:       5 passed, 5 total
Snapshots:   0 total
Time:        1.043 s
```

- removeHashtag

```
PS C:\Users\goenk\OneDrive\Desktop\IT314-G6-Blogging-Platform> npx jest removeHashtag.early.test.js
PASS  utils/writeblogFunctions.early.test/removeHashtag.early.test.js
  removeHashtag() removeHashtag method
    Happy Paths
      ✓ should remove a hashtag that exists in the array (4 ms)
      ✓ should not modify the array if the hashtag does not exist (1 ms)
    Edge Cases
      ✓ should handle an empty array gracefully
      ✓ should handle removing a hashtag when it is the only element in the array
      ✓ should handle case sensitivity correctly
      ✓ should not throw an error if the hashtag to remove is undefined
      ✓ should not throw an error if the hashtag to remove is null

Test Suites: 1 passed, 1 total
Tests:       7 passed, 7 total
Snapshots:   0 total
Time:        2.076 s
```

## Overall Data:

```
Test Suites: 10 failed, 28 passed, 38 total
Tests:       20 failed, 202 passed, 222 total
Snapshots:   0 total
Time:        6.549 s
```

## Coverage:

### All files IT314-G6-Blogging-Platform-main

91.78% Statements 380/414 85.02% Branches 159/187 82.14% Functions 46/56 93.12% Lines 366/393

Press *n* or *j* to go to the next uncovered block, *b*, *p* or *k* for the previous block.

Filter:

File	Statements	Branches	Functions	Lines
blogAPI.js	86.02% 80/93	72.5% 29/40	80% 8/10	86.95% 80/92
comment_form.js	89.09% 49/55	82.6% 19/23	76.92% 10/13	91.83% 45/49
comment_section.js	100% 8/8	80% 4/5	100% 2/2	100% 8/8
loginHandlers.js	100% 28/28	100% 16/16	100% 2/2	100% 28/28
profile.js	90.58% 77/85	93.02% 40/43	85.71% 12/14	91.02% 71/78
registerHandlers.js	100% 40/40	100% 18/18	100% 2/2	100% 40/40
writeblogFunctions.js	93.33% 98/105	78.57% 33/42	76.92% 10/13	95.91% 94/98