



IT-314 Software Engineering

Group-15 News Aggregator

GUI Testing Documentation

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What is GUI Testing?

GUI testing is the process of validating the graphical user interface of an application to ensure it meets design specifications and functions correctly. It involves checking elements like buttons, text boxes, menus, and icons for proper alignment, appearance, and responsiveness. GUI testing also verifies user interactions, such as clicks, input fields, and navigation workflows, to ensure the application behaves as intended. This type of testing is essential for identifying visual inconsistencies, usability issues, and functionality defects in the interface. By ensuring the GUI is user-friendly and error-free, GUI testing improves the overall user experience and helps maintain application quality.

We did GUI testing using Selenium IDE to test all the functionality of our website and the results are provided for each functionality along with the testing results

1. Unlogged User :

All buttons and text fields are working fine.

The user is unable to access any functionality without logging in or signing in.

Selenium IDE - News_Aggregator_Project *

Project: News_Aggregator_Project *

Executing -

✓ UnloggedUser* https://normal-frontend.onrender.com

Command	Target	Value
1 ✓ open	/	
2 ✓ set window size	1410x799	
3 ✓ click	linkText=Providers	
4 ✓ run script	window.scrollTo(0,573.8181762695312)	
5 ✓ mouse over	css=.MuiBox-root:nth-child(3) .MuiButtonBase-root:nth-child(3)	
6 ✓ mouse out	css=.MuiBox-root:nth-child(3) .MuiButtonBase-root:nth-child(3)	
7 ✓ mouse over	css=.MuiBox-root:nth-child(3) .MuiButtonBase-root:nth-child(2) > .MuiSvgIcon-root	
8 ✓ mouse out	css=.MuiBox-root:nth-child(3) .MuiButtonBase-root:nth-child(2)	

Runs: 1 Failures: 0

Log Reference

- 31. mouseOver on css=.css-ajhd4c OK 00:03:29
- 32. click on css=.css-ajhd4c OK 00:03:29
- 33. Trying to find css=.MuiBox-root:nth-child(2) .MuiPaper-root .MuiButtonBase-root:nth-child(3) path... OK 00:03:29
- 34. mouseOut on css=.MuiBox-root:nth-child(2) .MuiPaper-root .MuiButtonBase-root:nth-child(3) path OK 00:03:38
- 35. mouseOver on css=.MuiBox-root:nth-child(2) .MuiPaper-root .MuiButtonBase-root:nth-child(4) OK 00:03:39
- 36. mouseOut on css=.MuiBox-root:nth-child(2) .MuiPaper-root .MuiButtonBase-root:nth-child(4) OK 00:03:39

UnloggedUser* completed successfully 00:03:39

2. Invalid SignUp :

All buttons and text fields are working fine.

The site throws error if signed in using invalid email id or invalid password

The screenshot displays the Selenium IDE interface for a project named 'News_Aggregator_Project'. The test script 'InvalidSignUp*' is selected, showing a sequence of commands: click, click, mouse over, type, click, click, and mouse out. The targets are CSS selectors for buttons and text inputs. The execution log at the bottom shows that all steps completed successfully.

Command	Target	Value
click	css=.MuiButton-contained	
click	id=email	
mouse over	css=.MuiButton-contained	
type	id=email	
click	css=.MuiButton-contained	
click	css=.MuiButton-contained	
mouse out	css=.MuiButton-contained	

Log Reference

Log	Reference
14. click on id=email OK	23:56:57
15. mouseOver on css=.MuiButton-contained OK	23:56:57
16. type on id=email OK	23:56:58
17. click on css=.MuiButton-contained OK	23:56:58
18. click on css=.MuiButton-contained OK	23:56:58
19. mouseOut on css=.MuiButton-contained OK	23:56:58
'InvalidSignUp' completed successfully	23:56:58

3. Invalid Login :

All buttons and text fields are working fine.

It throws error for wrong credentials or new account.

The screenshot displays the Selenium IDE interface for a project named 'News_Aggregator_Project'. The test script 'Invalid Login*' is selected, showing a sequence of commands: type, click, mouse over, type, click, and close. The targets are ID selectors for username and password fields, and CSS selectors for error messages and a close button. The execution log at the bottom shows that all steps completed successfully.

Command	Target	Value
type	id=username	alkdhtbf@gmail.com
click	id=password	
mouse over	css=.MuiButton-textError	
type	id=password	skfthbuchewbrf
click	css=.MuiButton-contained	
close		

Log Reference

Log	Reference
6. type on id=username with value alkdhtbf@gmail.com OK	01:46:48
7. click on id=password OK	01:46:48
8. mouseOver on css=.MuiButton-textError OK	01:46:49
9. type on id=password with value skfthbuchewbrf OK	01:46:49
10. click on css=.MuiButton-contained OK	01:46:49
11. close OK	01:46:49
'Invalid Login' completed successfully	01:46:49

4. Valid Signup And Login:

All buttons and text fields are working fine.
User can signup and login into it.

The screenshot displays the Selenium IDE interface for a project named 'News_Aggregator_Project'. The test suite 'Valid Login and Signup' is selected, and the URL is 'https://normal-frontend.onrender.com'. The test steps are as follows:

Step	Command	Target	Value
24	click	id=password	
25	mouse over	css=.MuiButton-textError	
26	mouse over	css=.MuiButton-contained	
27	type	id=password	Vasask@3aug
28	click	css=.MuiButton-contained	
29	mouse over	css=div:nth-child(7) > .MuiButtonBase-root	
30	click	css=.btn	

The log shows successful execution of all steps, with the final status: 'Valid Login and Signup' completed successfully.

5. Update Profile And Password :

All buttons and text fields are working fine.
The profile and password can be updated.

The screenshot displays the Selenium IDE interface for the same project. The test suite 'UpdateProfile' is selected, and the URL is 'https://normal-frontend.onrender.com'. The test steps are as follows:

Step	Command	Target	Value
40	mouse over	css=.css-v9ppqq	
41	type	css=.Mui-focused > .MuiInputBase-input	Vasask@3aug
42	click	css=.css-v9ppqq	
43	mouse over	css=div:nth-child(9) > .MuiButtonBase-root	
44	click	css=.badge:nth-child(2) path	
45	run script	window.scrollTo(0,225.4545440673828)	
46	close		

The log shows successful execution of all steps, with the final status: 'UpdateProfile' completed successfully.

6. Like/Unlike Article :

All buttons and text fields are working fine.
Logged user can like and unlike the articles.

The screenshot shows the Selenium IDE interface for a project named 'News_Aggregator_Project'. The URL is 'https://normal-frontend.onrender.com'. The test suite 'LikeUnlike*' is selected, showing 7 steps:

Step	Command	Target	Value
1	open	/	
2	set window size	1410x799	
3	mouse over	css=div:nth-child(6) > .MuiButtonBase-root	
4	mouse over	css=.MuiBox-root:nth-child(1) > .MuiPaper-root > .MuiPaper-root .action-buttons > .MuiButtonBase-root:nth-child(1)	
5	mouse out	css=.MuiBox-root:nth-child(1) > .MuiPaper-root > .MuiPaper-root .action-buttons > .MuiButtonBase-root:nth-child(1)	
6	click	css=.MuiBox-root:nth-child(1) > .MuiPaper-root > .MuiPaper-root .action-buttons > .MuiBox-root:nth-child(2) .MuiSvgIcon-root	
7	mouse over	css=.MuiBox-root:nth-child(1) > .MuiPaper-root > .MuiPaper-root	

The Log pane shows the following messages:

- 16. Trying to find css=.MuiBox-root:nth-child(1) > .MuiPaper-root > .MuiPaper-root .action-buttons > .MuiBox-root:nth-child(2) path... OK 23:47:14
- 17. click on css=.MuiBox-root:nth-child(1) > .MuiPaper-root > .MuiPaper-root .action-buttons > .MuiBox-root:nth-child(2) path OK 23:47:16
- 18. runScript on window.scrollTo(0,304) OK 23:47:17
- 19. Trying to find css=.css-1tmq37o... OK 23:47:18
- 20. Trying to find css=.MuiBox-root:nth-child(2) > .MuiPaper-root .action-buttons > .MuiBox-root:nth-child(2) .MuiSvgIcon-root... OK 23:47:33
- 21. mouseOut on css=.MuiBox-root:nth-child(2) > .MuiPaper-root .action-buttons > .MuiBox-root:nth-child(2) .MuiSvgIcon-root OK 23:47:37

'LikeUnlike' completed successfully 23:47:38

7. Comment On Article :

All buttons and text fields are working fine.
Logged user can comment on articles and see the comments on that article.

The screenshot shows the Selenium IDE interface for a project named 'News_Aggregator_Project'. The URL is 'https://normal-frontend.onrender.com'. The test suite 'CommentArticle*' is selected, showing 7 steps:

Step	Command	Target	Value
1	open	/	
2	set window size	1410x799	
3	mouse over	css=.MuiBox-root:nth-child(1) > .MuiPaper-root > .MuiPaper-root .MuiBox-root:nth-child(3) path	
4	click	css=.MuiBox-root:nth-child(1) > .MuiPaper-root > .MuiPaper-root .MuiBox-root:nth-child(3) path	
5	mouse out	css=.MuiBox-root:nth-child(1) > .MuiPaper-root > .MuiPaper-root .MuiBox-root:nth-child(3) path	
6	mouse over	css=.css-sr06o4	
7	type	id=rbu:	hii

The Log pane shows the following messages:

- 7. type on id=rbu: with value hii OK 23:51:06
- 8. click on css=.css-sr06o4 OK 23:51:06
- 9. mouseOut on css=.css-sr06o4 OK 23:51:06
- 10. Trying to find css=.MuiPaper-root:nth-child(5) .MuiSvgIcon-root... OK 23:51:06
- 11. click on css=.MuiPaper-root:nth-child(5) path OK 23:51:13
- 12. click on css=.MuiBackdrop-root OK 23:51:13

'CommentArticle' completed successfully 23:51:14

8. Bookmark Article :

All buttons and text fields are working fine.

Logged user can bookmark the articles and store them and can also unbookmark and remove.

The screenshot shows the Selenium IDE interface for a project named 'News_Aggregator_Project'. The test case 'BookmarkPosts*' is selected, and the URL is 'https://normal-frontend.onrender.com'. The test case contains the following commands:

Command	Target	Value
✓ mouse out	css=box:nth-child(1) .MuiButtonBase-root:nth-child(1) path	
✓ run script	window.scrollTo(0,50.181819915771484)	
✓ click	css=box:nth-child(2) .MuiButtonBase-root:nth-child(1)	
✓ mouse out	css=.box:nth-child(2) .MuiButtonBase-root:nth-child(1)	
✓ run script	window.scrollTo(0,32.727272033691406)	
✓ mouse over	css=div:nth-child(7) > .MuiButtonBase-root	
✓ mouse over	css=div:nth-child(10) > .MuiButtonBase-root	

The log shows the following steps:

- 13. click on linkText=Providers OK
- 14. mouseOut on linkText=Providers OK
- 15. Trying to find css=.MuiGrid-root:nth-child(2) > .MuiPaper-root > .MuiCardContent-root > .MuiButtonBase-root... OK
- 16. click on css=.MuiGrid-root:nth-child(2) > .MuiPaper-root > .MuiCardContent-root > .MuiButtonBase-root OK
- 17. mouseOut on css=.MuiGrid-root:nth-child(2) > .MuiPaper-root > .MuiCardContent-root > .MuiButtonBase-root OK
- 18. mouseOver on css=.MuiGrid-root:nth-child(4) .MuiCardContent-root > .MuiButtonBase-root OK
- 19. click on css=.MuiGrid-root:nth-child(4) .MuiCardContent-root > .MuiButtonBase-root OK

9. View History :

All buttons and text fields are working fine.

Logged User can view the history of previously visited posts.

The screenshot shows the Selenium IDE interface for a project named 'News_Aggregator_Project'. The test case 'History*' is selected, and the URL is 'https://normal-frontend.onrender.com'. The test case contains the following commands:

Command	Target	Value
✓ open	/	
✓ set window size	710x792	
✓ click	css=.MuiBox-root:nth-child(1) > .MuiBox-root > .MuiPaper-root .MuiCardContent-root > .MuiTypography-root	
✓ store window handle	root	
✓ select window	handle=\${win8539}	
✓ close		
✓ select window	handle=\${root}	
✓ mouse over	css=div:nth-child(5) > .MuiButtonBase-root	

The log shows the following steps:

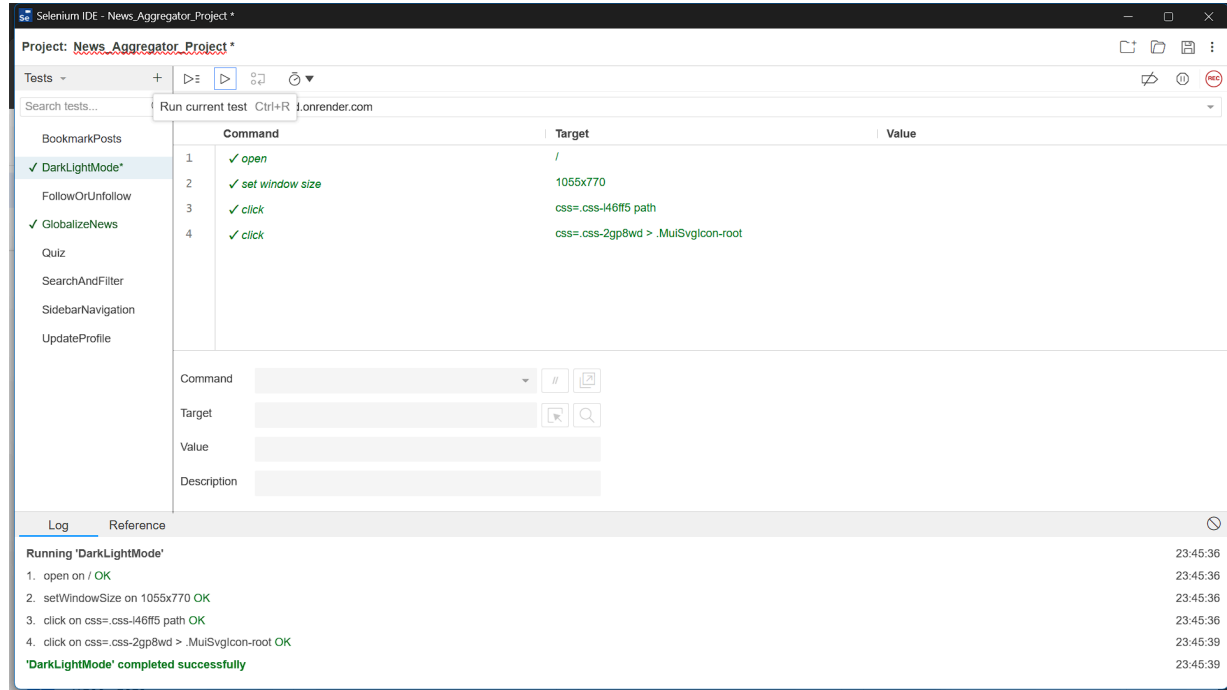
- 11. mouseOut on css=div:nth-child(4) > .MuiButtonBase-root OK
- 12. mouseOver on css=div:nth-child(3) > .MuiButton-root OK
- 13. mouseOut on css=div:nth-child(3) > .MuiButton-root OK
- 14. mouseOver on css=div:nth-child(2) > .MuiButton-text OK
- 15. mouseOver on css=.MuiButtonBase-root > img OK
- 16. click on css=.MuiListItem-root:nth-child(5) .MuiSvgIcon-root OK

'History' completed successfully

10. Dark/Light Mode :

All buttons and text fields are working fine.

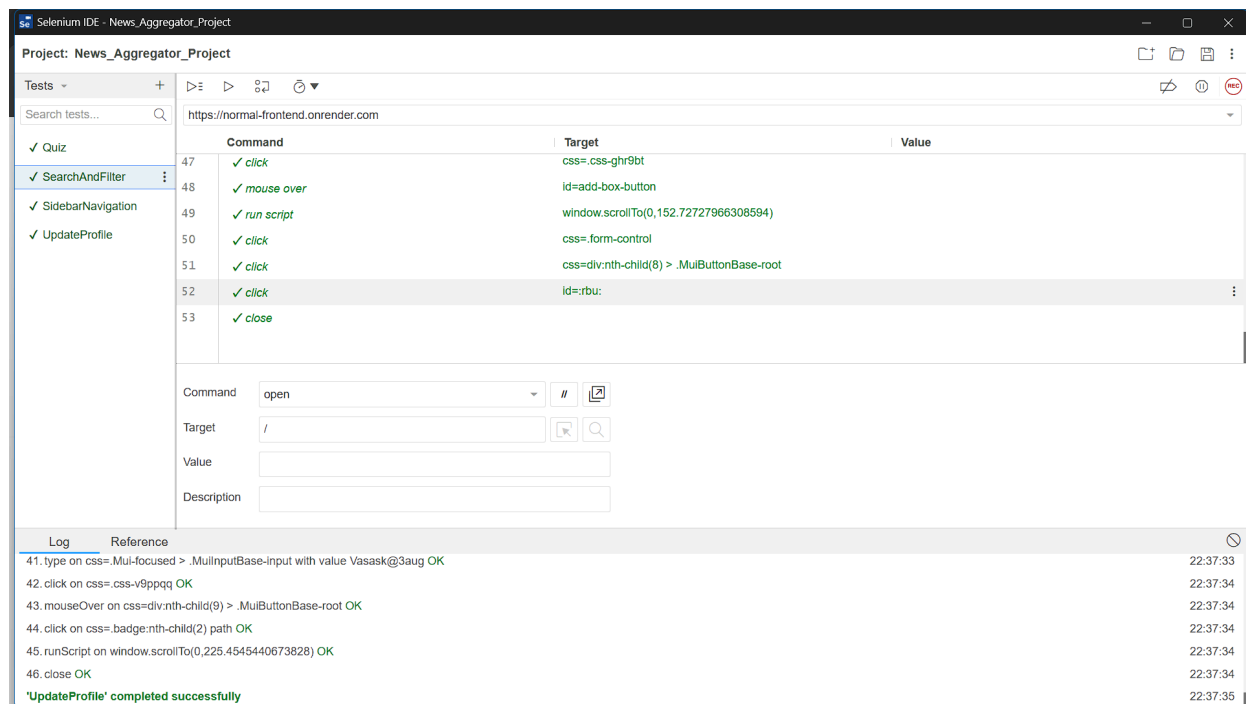
User can turn change the theme of website to light mode or dark mode conveniently.



11. Search And Filter :

All buttons and text fields are working fine.

The logged user can search and filter using keyword or dates.



12. Filter News By Location :

All buttons and text fields are working fine.

The logged user can also search and filter the news of a particular city location.

The screenshot shows the Selenium IDE interface for a project named 'News_Aggregator_Project'. The browser address bar displays 'https://normal-frontend.onrender.com'. The test suite 'GlobalizeNews*' is selected, showing a list of 8 commands: 'open', 'set window size', 'click', 'click', 'run script', 'run script', 'run script', and 'run script'. The log at the bottom indicates that the test 'GlobalizeNews' completed successfully at 23:43:21.

Command	Target	Value
1. ✓ open	/	
2. ✓ set window size	1055x770	
3. ✓ click	css=#basic-button .MuiSvgIcon-root	
4. ✓ click	css=body	
5. ✓ run script	window.scrollTo(0,0)	
6. ✓ run script	window.scrollTo(0,0)	
7. ✓ run script	window.scrollTo(0,0)	
8. ✓ run script	window.scrollTo(0,0)	

Log Reference

Log	Reference
14. mouseOver on css=.css-1ufrgd8 OK	23:43:12
15. click on css=body OK	23:43:12
16. Trying to find css=.MuiMenuItem-root:nth-child(4)... OK	23:43:12
17. mouseOver on css=.css-1ufrgd8 OK	23:43:20
18. click on css=.css-1ufrgd8 OK	23:43:20
19. mouseOut on css=.css-1ufrgd8 OK	23:43:20
'GlobalizeNews' completed successfully	23:43:21

13. Follow/Unfollow/Mute News Channel :

All buttons and text fields are working fine.

The logged user can follow/unfollow the news channel and can also mute them.

The screenshot shows the Selenium IDE interface for the same project. The test suite 'FollowOrUnfollow*' is selected, showing a list of 7 commands: 'mouse over', 'click', 'click', 'mouse out', and 'close'. The log at the bottom indicates that the test 'FollowOrUnfollow' completed successfully at 22:45:24.

Command	Target	Value
23. ✓ mouse over	css=.MuiGrid-root:nth-child(2) > .MuiPaper-root > .MuiCardContent-root .MuiSvgIcon-root	
24. ✓ click	css=.MuiGrid-root:nth-child(2) > .MuiPaper-root > .MuiCardContent-root .MuiSvgIcon-root	
25. ✓ click	css=.MuiGrid-root:nth-child(2) > .MuiPaper-root > .MuiCardContent-root .MuiSvgIcon-root	
26. ✓ mouse out	css=.MuiGrid-root:nth-child(2) > .MuiPaper-root > .MuiCardContent-root .MuiSvgIcon-root	
27. ✓ close		

Log Reference

Log	Reference
13. click on linkText=Providers OK	22:45:13
14. mouseOut on linkText=Providers OK	22:45:14
15. Trying to find css=.MuiGrid-root:nth-child(2) > .MuiPaper-root > .MuiCardContent-root > .MuiButtonBase-root... OK	22:45:15
16. click on css=.MuiGrid-root:nth-child(2) > .MuiPaper-root > .MuiCardContent-root > .MuiButtonBase-root OK	22:45:21
17. mouseOut on css=.MuiGrid-root:nth-child(2) > .MuiPaper-root > .MuiCardContent-root > .MuiButtonBase-root OK	22:45:22
18. mouseOver on css=.MuiGrid-root:nth-child(4) .MuiCardContent-root > .MuiButtonBase-root OK	22:45:23
19. click on css=.MuiGrid-root:nth-child(4) .MuiCardContent-root > .MuiButtonBase-root OK	22:45:24

14. Logout :

All buttons and text fields are working fine.
The user can easily logout.

The screenshot shows the Selenium IDE interface for a project named 'News_Aggregator_Project'. The 'Tests' pane on the left lists several test cases, with 'Logout*' selected. The main pane displays the execution details for the 'Logout' test case, which consists of four steps:

Step	Command	Target	Value
1	open	/	
2	set window size	1410x799	
3	click	css=.btn	
4	mouse over	css=.MuiButton-textSuccess	

Below the table, there are input fields for Command, Target, Value, and Description. The 'Log' pane at the bottom shows the execution log for the 'Logout' test case, indicating that all steps passed successfully.

```
Running 'Logout'
1. open on / OK
2. setWindowSize on 1410x799 OK
3. click on css=.btn OK
4. mouseOver on css=.MuiButton-textSuccess OK
'Logout' completed successfully
```

15. Share Article :

All buttons and text fields are working fine.
The logged user can share the article on other platforms.

The screenshot shows the Selenium IDE interface for the same project, 'News_Aggregator_Project'. The 'Tests' pane on the left lists several test cases, with 'ShareArticle*' selected. The main pane displays the execution details for the 'ShareArticle*' test case, which consists of six steps:

Step	Command	Target	Value
1	open	/	
2	set window size	1410x799	
3	mouse over	css=.MuiBox-root:nth-child(1) > .MuiButtonBase-root:nth-child(4) > .MuiSvgIcon-root	
4	click	css=.MuiBox-root:nth-child(1) > .MuiButtonBase-root:nth-child(4) > .MuiSvgIcon-root	
5	mouse out	css=.MuiBox-root:nth-child(1) > .MuiButtonBase-root:nth-child(4) > .MuiSvgIcon-root	
6	mouse over	css=.MuiBox-root:nth-child(1) > .MuiButtonBase-root:nth-child(4) > .MuiSvgIcon-root	

Below the table, there are input fields for Command, Target, Value, and Description. The 'Log' pane at the bottom shows the execution log for the 'ShareArticle*' test case, indicating that all steps passed successfully.

```
22. storeWindowHandle on root OK
23. selectWindow on handle=${win5514} OK
24. close OK
25. selectWindow on handle=${root} OK
26. mouseOver on css=div:nth-child(7) > .MuiButtonBase-root OK
27. mouseOut on css=div:nth-child(7) > .MuiButtonBase-root OK
'ShareArticle*' completed successfully
```

16. Play Quiz :

All buttons and text fields are working fine.
The logged user can play quiz on the website.

Selenium IDE - News_Aggregator_Project

Project: News_Aggregator_Project

Tests +

Search tests...

https://normal-frontend.onrender.com

Command	Target	Value
1 ✓ open	/	
2 ✓ set window size	1410x799	
3 ✓ click	css=.MuiButtonBase-root > img	
4 ✓ click	css=.MuiPaper-root:nth-child(2) > .MuiFormControlLabel-root	
5 ✓ mouse over	css=.MuiButton-containedSizeMedium	
6 ✓ click	css=.MuiButton-containedSizeMedium	
7 ✓ mouse out	css=.MuiButton-containedSizeMedium	
8 ✓ click	css=.MuiPaper-root:nth-child(2) > .MuiFormControlLabel-root	

Command: open, Target: /, Value: , Description:

LogReference

41. type on css=.Mui-focused > .MuiInputBase-input with value Vasask@3aug OK22:37:33

42. click on css=.css-v9ppqq OK22:37:34

43. mouseOver on css=div:nth-child(9) > .MuiButtonBase-root OK22:37:34

44. click on css=.badge:nth-child(2) path OK22:37:34

45. runScript on window.scrollTo(0,225.454440673828) OK22:37:34

46. close OK22:37:34

'UpdateProfile' completed successfully22:37:35

17. SideBar Navigation And Top Navigation Bar :

All buttons and text fields are working fine.
The sidebar navigation and top navigation bar are working normally.

Selenium IDE - News_Aggregator_Project

Project: News_Aggregator_Project

Tests +

Search tests...

https://normal-frontend.onrender.com

Command	Target	Value
14 ✓ click	css=.MuiListItem-root:nth-child(7) .MuiTypography-root	
15 ✓ click	css=.MuiListItem-root:nth-child(1) .MuiTypography-root	
16 ✓ click	css=.MuiListItem-root:nth-child(4)	
17 ✓ click	css=.MuiListItem-root:nth-child(2) .MuiTypography-root	
18 ✓ mouse over	css=div:nth-child(3) > .MuiButton-root	
19 ✓ mouse over	css=div:nth-child(8) > .MuiButtonBase-root	
20 ✓ close		

Command: open, Target: /, Value: , Description:

LogReference

41. type on css=.Mui-focused > .MuiInputBase-input with value Vasask@3aug OK22:37:33

42. click on css=.css-v9ppqq OK22:37:34

43. mouseOver on css=div:nth-child(9) > .MuiButtonBase-root OK22:37:34

44. click on css=.badge:nth-child(2) path OK22:37:34

45. runScript on window.scrollTo(0,225.454440673828) OK22:37:34

46. close OK22:37:34

'UpdateProfile' completed successfully22:37:35