

## SOFTWARE TESTING METHODOLOGY PROJECT

### TESTING A WEB SITE

1. We are testing Indus Magazine Website

#### **2. TEST PLAN**

**Testing product** – Indus Magazine Website

URL: <https://www.indusmagazine.com/>

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## **2.1 Introduction**

The product being tested here is Indus Magazine Website which is a website based on technology news. This website gives all the new technology news, reviews about the new releases in technologies. News Republic are powering Indus Magazine website. This website consists of news related to business, technology, featured articles, tutorials etc.

For testing Indus Magazine website, we have done testing in BDD framework. The browser used for this testing is google chrome and we have used selenium web driver for importing the web drivers, keys or any actions that are required during the testing process.

## **2.2 Why it is an interesting testing possibility**

Indus Magazine Website is a new website which is formed for delivering news and reviews based on newly released technologies. We have chosen this website as this is newly formed which makes us to explore the functionalities of the website and there would also be possibilities for finding bugs or any missed functionalities within the website. Apart from this, we think this is interesting as testing ensures all the functionalities are satisfying or not for this website. Coming to the use of BDD for testing, we are using this as BDD is better understandable when compared to TDD and, we've learned BDD in this semester so we wanted to use something new for testing the product so that we can explore and learn more about it.

## **2.3 What the stakeholder group is**

Stakeholder group involves all those who are directly or indirectly involved with this website. The stakeholder group for Indus Magazine Website involves users group consisting of students, customers looking for reviews who are intending to buy the product, Manufacturers whose product is being reviewed, we as testers, content writers, developers who developed the website, group of people who are viewing the website, sponsors which are involved with the web site.

## **2.4 What does “value” mean**

The prime purpose of testing is to provide value to someone. Here the value means the benefits that the stakeholder expects and get from the services provided. These services provide the clients, members in the testing team or the organization to determine their decisions. When the point of “value” comes to our website testing work, the benefits we (as testers) get from testing the product involves knowledge of working with automated tests, and web drivers etc. And the work of testing we have done satisfies the client or the stakeholder as we are giving out the testing results of how the website functionalities are working. So, as overall every stakeholder is getting some “value”.

## 2.5 Requirements for testing

| 10 REQUIREMENTS FOR TESTING |             |             |          |
|-----------------------------|-------------|-------------|----------|
| Requirement ID              | Requirement | Description | Priority |

| Requirement ID | Requirement  | Description  | Priority |
|----------------|--|--|----------|
| RQ01           | Web page must be launched and Website Logo must work   | Web application should be navigated to the URL:<br><a href="https://www.indusmagazine.com/">https://www.indusmagazine.com/</a><br>And when clicked on the logo of the website, the webpage must be navigated to the homepage | HIGH     |
| RQ02           | Buttons on the navigation bar must work to navigate to the respected category page                 | When clicked on the buttons in the navigation bar the page must display the result of the selected category  | HIGH     |
| RQ03           | Sign up functionality must work for creating an account  | User must be able to sign up for an account by entering the credentials  | HIGH     |
| RQ04           | When signing up with the already registered credential should say user is already registered       | User should be notified that the user is already existing  | HIGH     |
| RQ05           | Sign in functionality must work for signing into the website                                       | User must be able to sign in to the website account by entering the credentials  | HIGH     |
| RQ06           | Search option must work for searching per the keyword entered                                      | When entered a keyword in the search bar, user should be able to get the results   | HIGH     |
| RQ07           | Navigation to social media sites must work when clicked on icons                                   | User must be navigated to respective pages for connecting to the website   | HIGH     |
| RQ08           | Selecting an article from the list of articles in the popular button                               | User must be able to select an article from the list of articles under popular articles  | MEDIUM   |
| RQ09           | Arrows on the slider on the webpage must work moving the article contents in the clicked direction | User must be able to slide the articles on the slider left or right per the selection<br>Of the right arrow or the left arrow  | MEDIUM   |

|             |   |   |               |
|-------------|---|---|---------------|
|             |   |   |               |
| <b>RQ10</b> | Submitting a message in the contact section without verifying should raise an error | User must get an error when they try to submit their query without verifying that they are not robot.           | <b>Medium</b> |
| <b>RQ11</b> | Share option on the webpage must work for sharing the article in the social media   | User should be able to share an article by clicking on the share button and selecting the social media to share | <b>Medium</b> |

## 2.6 A Plan for testing each of the requirements

For testing each requirement of the website, we have used BDD Framework and we have used selenium web driver for working with the graphical user interface of the website on the client side. The detail implementation of the tests is given below.

| PLAN FOR TESTING REQUIREMENTS |   |   |  |  |
|-------------------------------|---|---|--|--|
|                               | Title   | Test Steps  | Expected Results   |  |
| 1                             | TITLE: Validate whether the web page is being launched and when clicked on logo navigates to the homepage | i. Launch the web application by navigating to the link <a href="https://www.indusmagazine.com/">https://www.indusmagazine.com/</a> | User should be able to launch the website and the home page should be displayed            |  |
|                               |   | ii. Click on Indus Mag logo on the home page  | User should be able to click on the logo and the web page should be navigated to home page |  |
|                               |   | iii. Verify whether user should be at Homepage of Indus Magazine  | User should be at Indus Magazine website homepage  |  |
|                               |   |   |  |  |
| 2                             | TITLE: Validate whether all the buttons on the navigation bar are working                                 | i. Launch the web application by navigating to the link <a href="https://www.indusmagazine.com/">https://www.indusmagazine.com/</a> | User should be able to launch the website and the home page should be displayed            |  |
|                               |   | ii. Click on the technology button on the web page  | User should be navigated to the technology page  |  |
|                               |   | iii. Click on the Business button on the web page   | User should be navigated to the Business page  |  |
|                               |   | iv. Click on the Reviews button on the web page   | User should be navigated to the Reviews page   |  |

|   |   |   |  |  |
|---|---|---|--|--|
|   |   | v. Click on the Featured button on the web page   | User should be navigated to the Featured page  |  |
|   |   | vi. Click on the Home button on the web page  | User should be navigated to the Home page  |  |
|   |   | vii. Verify whether the user should be at the Home Page of the Indus Magazine and all button are working                            | User should be at the Indus Magazine home page after working on all buttons                          |  |
|   |   |   |  |  |
| 3 | TITLE: Validate whether the user should be able to Sign Up for the website                                  | i. Launch the web application by navigating to the link <a href="https://www.indusmagazine.com/">https://www.indusmagazine.com/</a> | User should be able to launch the website and the home page should be displayed                      |  |
|   |   | ii. Click on the Sign-Up button on the web page   | User should be navigated to "Sign Up" page   |  |
|   |   | iii. Enter the Username in the input field of username  | User should be able enter the username   |  |
|   |   | iv. Enter the email address in the required input field   | User should be able to enter the email address   |  |
|   |   | v. Click on Register button after entering the required fields  | User should be able to click on the Register button and should be navigated to the confirmation page |  |
|   |   | vi. Verify whether user should be at the confirmation page  | User should be at the Indus Magazine Sign Up confirmation page                                       |  |
|   |   |   |  |  |
| 4 | TITLE: Validate whether the user gets a message saying already signed up if signed up with same credentials | i. Launch the web application by navigating to the link <a href="https://www.indusmagazine.com/">https://www.indusmagazine.com/</a> | User should be able to launch the website and the home page should be displayed                      |  |
|   |   | ii. Click on sign up button on the web page   | User should be navigated to "Sign Up" page   |  |
|   |   | iii. Enter the already registered username in the input field of username   | User should be able enter the already registered username  |  |
|   |   | iv. Enter the already registered email address in the input field   | User should be able to enter the already registered email address                                    |  |
|   |   | v. Click on register button after entering the required fields  | User should be able to click on the Register button  |  |

|   |  |  |   |  |
|---|--|--|---|--|
|   |  | vi. Verify whether the user should be at the confirmation page   | User should be at the page with a message "already registered"                        |  |
|   |  |  |   |  |
| 5 | TITLE: Validate whether the user should be able to Log In to the website       | i. Launch the web application by navigating to the link<br><a href="https://www.indusmagazine.com/">https://www.indusmagazine.com/</a> | User should be able to launch the website and the home page should be displayed       |  |
|   |  | ii. Click on the Log In button on the web page   | User should be navigated to the Log In page   |  |
|   |  | iii. Enter the username/email in the respective input field on the web page  | User should enter the username/email  |  |
|   |  | iv. Enter the password in the respective input field   | User should enter the password  |  |
|   |  | v. Click on the Log In button after entering the credentials   | User clicks on the Login Button and is logged in to the account                       |  |
|   |  | vi. Verify whether user should be at the Users profile page  | User should be at the user's profile page   |  |
|   |  |  |   |  |
| 6 | TITLE: Validate whether the user should be able to search and retrieve results | i. Launch the web application by navigating to the link<br><a href="https://www.indusmagazine.com/">https://www.indusmagazine.com/</a> | User should be able to launch the website and the home page should be displayed       |  |
|   |  | ii. Click on the search icon   | User clicks on the search icon and input field appears                                |  |
|   |  | iii. Enter the keyword in the input field and search for the keyword   | User should enter the keyword in input field for searching and should get the results |  |
|   |  | iv. Verify whether we are the results page   | User should be at the results page  |  |
|   |  |  |   |  |
| 7 | TITLE: Validate whether user should be able to navigate to the Indus Magazine  | i. Launch the web application by navigating to the link<br><a href="https://www.indusmagazine.com/">https://www.indusmagazine.com/</a> | User should be able to launch the website and the home page should be displayed       |  |

|   |   |   |  |  |
|---|---|---|--|--|
|   | founder's twitter account   | ii. Click on the twitter icon on the web page   | User should be navigated to the twitter account of the Indus Magazine Founder                    |  |
|   |   | iii. Verify whether the user should be at the twitter page  | User should be at the twitter account page   |  |
|   |   |   |  |  |
| 8 | TITLE: Validate whether user should be able to use popular articles tab and select an article from it | i. Launch the web application by navigating to<br><a href="https://www.indusmagazine.com">https://www.indusmagazine.com</a> | User should be able to launch the website and the home page should be displayed                  |  |
|   |   | ii. Click on the popular tab button on the web page   | user gets a result with list of popular articles   |  |
|   |   | iii. Click on the selected article in the list  | User should be navigated to the webpage of the selected article                                  |  |
|   |   | iv. Verify whether the user gets the result page  | User should be at the result page  |  |
|   |   |   |  |  |
| 9 | TITLE: Validate whether the user should be able to use the arrows in the slider on the web page       | i. Launch the web application by navigating to<br><a href="https://www.indusmagazine.com">https://www.indusmagazine.com</a> | User should be able to launch the website and the home page should be displayed                  |  |
|   |   | ii. Click on the right arrow option in the slider   | User should be able to click on right arrow and the options in the slider should move upon click |  |
|   |   | iii. Click on the left arrow option in the slider   | User should be able to click on left arrow and options in the slider should move upon click      |  |
|   |   |   |  |  |

|    |   |   |  |  |
|----|---|---|--|--|
|    |   |   |  |  |
| 10 | TITLE: Validate whether submitting a message in the contact section without verifying raises an error | i. Launch the web application by navigating to<br><a href="https://www.indusmagazine.com">https://www.indusmagazine.com</a> | User should be able to launch the website and the home page should be displayed                                  |  |
|    |   | ii. Click on the contact button on the web page   | User should be able to click on the contact button and get navigated to contact page                             |  |
|    |   | iii. Enter the name   | User should be able to enter the name  |  |
|    |   | iv. Enter the email Address   | User should be able to enter an email  |  |
|    |   | v. Enter the message to be sent   | User should be able to enter the message to be sent  |  |
|    |   | vi. Click on send   | User should be able to click on send and now should get an error message displayed on a webpage                  |  |
| 11 | TITLE: Validate whether the share option for an article works   | i. Launch the web application by navigating to<br><a href="https://www.indusmagazine.com">https://www.indusmagazine.com</a> | User should be able to launch the website and the home page should be displayed                                  |  |
|    |   | ii. Select an article to be read  | User should be able to click on an article and select  |  |
|    |   | iii. Click on share button of the respective article  | User should be able to click on the share button for the respective article                                      |  |
|    |   | iv. Select the social media in which the article is to be shared  | User should be able to click on the selected social media button and should get navigated to the respective page |  |

## 2.7 Estimates of benefits

Estimation of benefits gives us the primary information about the working of the website. Testing can benefit employer, content writers as this is a website based on writing new and reviews about the newly released technologies. Testing here can benefit by providing information about the proper working of all the functionalities expected by the stakeholders or the end users. Testing also yields commercial benefits for the website owner. Proper testing of the website can give the

information about the working by which the website can get opportunities for sponsorships, and they can rise their capability of working and employment.

## 2.8 Estimates of cost

Estimates of cost depends on the hours of work, resources used for testing, number of people involved in testing, number of productive hours worked, and cost per tester. So, for this project, the number of people involved for testing are two, number of days worked 4, number of productive hours per day are 4 hours, and let us consider the pay for each hour be \$30. The total number of hours worked for testing [indusmagazine.com](http://indusmagazine.com) are 16 hours (4hours \* 4days). So, the total pay for each tester per number of hours worked is 16hours \* \$30 per hour = \$480 per tester. As there are two testers working on testing the website total amount paid for two testers is \$960 (\$480 \* 2). After calculating the pay for testers, we have used some resources for testing and the cost for using these resources be considered as miscellaneous costs and the expected cost be \$100 for four days. Hence, the total estimated cost comes to a figure of \$1060 for four days which is a sum of pay for two testers and miscellaneous costs.

## 3 Execute the testing plan

### 3.1 Test Results

| TEST RESULTS |  |  |  |           |
|--------------|--|--|--|-----------|
| S.NO         | REQUIREMENTS   | EXPECTED OUTPUT  | RESULT   | PASS/FAIL |
| 1            | Web page must be launched and Website Logo must work   | Web application should be navigated to the URL: <a href="https://www.indusmagazine.com/">https://www.indusmagazine.com/</a> And when clicked on the logo of the website, the webpage must be navigated to the homepage | Web application is navigated to <a href="http://indusmagazine.com">indusmagazine.com</a> and the logo when clicked s navigated to the homepage | PASS      |
| 2            | Buttons on the navigation bar must work to navigate to the respected category page           | When clicked on the buttons in the navigation bar the page must display the resultant page of the selected category  | On click on the selected category the page is navigated to the resultant selected page   | PASS      |
| 3            | Sign up functionality must work for creating an account                                      | User must be able to sign up for an account by entering the credentials  | User is able to sign-up for the website  | PASS      |
| 4            | When signing up with the already registered credential should say user is already registered | User should be notified that the user is already existing  | User is notified that the user is already registered   | PASS      |

|    |  |  |  |             |
|----|--|--|--|-------------|
| 5  | Sign in functionality must work for signing into the website                                       | User must be able to sign in to the website account by entering the credentials  | User is able to sign in into the website   | <b>PASS</b> |
| 6  | Search option must work for searching per the keyword entered                                      | When entered a keyword in the search bar, user should be able to get the results   | Results for the entered keyword are displayed on the webpage   | <b>PASS</b> |
| 7  | Navigation to social media sites must work when clicked on icons                                   | User must be navigated to respective pages for connecting to the website   | On clicking on the social media icon, the webpage is navigated to the respective social media website  | <b>PASS</b> |
| 8  | Selecting an article from the list of articles in the popular button                               | User must be able to select an article from the list of articles under popular articles                                    | Popular button is clicked and a list of article are displayed for user to select and upon selection user is navigated to the selected article page | <b>PASS</b> |
| 9  | Arrows on the slider on the webpage must work moving the article contents in the clicked direction | User must be able to slide the articles on the slider left or right per the selection of the right arrow or the left arrow | when clicked in the arrows in the slider the articles list is moved in the respective direction  | <b>PASS</b> |
| 10 | Submitting a message in the contact section without verifying should raise an error                | User must get an error when they try to submit their query without verifying that they are not robot                       | An error message is raised asking to check the "I am a robot" check box  | <b>PASS</b> |
| 11 | Share option on the webpage must work for sharing the article in the social media                  | User should be able to share an article by clicking on the share button and selecting the social media to share            | User is navigated to the social media webpage for sharing an article   | <b>PASS</b> |

### 3. Resultant Screenshots for Testing

#### a) Code for testing – Features file

```

C:\Users\anjith\Desktop\features\opening.feature - Sublime Text (UNREGISTERED)
File Edit Selection Find View Goto Tools Project Preferences Help
indus_mag.py x opening.feature x
2
3
4 Scenario: go to the web site
5 Given we have gone to the web site
6 when we click on the logo
7 then we will be at the indusmagazine home page
8
9 Scenario: testing the buttons on navigation bar
10 Given we have gone to the web site
11 when we click on technology button
12 and we click on business button
13 and we click on reviews button
14 and we click on latest button
15 and we click on gaming button
16 and we click on home button
17 then we will be at home page and all buttons are working
18
19 Scenario: testing the sign up functionality
20 Given we have gone to the web site
21 when we click on sign up
22 and we enter input "transom" as username
23 and we enter input "some09@gmail.com" as email
24 and we click on Register
25 then we will be at confirmation page
26
27 Scenario: testing the sign up functionality
28 Given we have gone to the web site
29 when we click on sign up
30 and we enter input "chennai" as username
31 and we enter input "chennai@gmail.com" as email
32 and we click on Register
33 then we should get an error saying the user is already registered
34
35 Scenario: testing the sign in functionality
36 Given we have gone to the web site
37 when we click on log in button
38 and we enter input "tumatisomya" as username/email
39 and we enter input "tumati@projecttesting12" as password
40 and we click on login
41 then we will be at users profile page
42
43 Line 85, Column 8 Tab Size: 4 Plain Text

C:\Users\anjith\Desktop\features\opening.feature - Sublime Text (UNREGISTERED)
File Edit Selection Find View Goto Tools Project Preferences Help
indus_mag.py x opening.feature x
44
45
46 Scenario: testing the search functionality
47 Given we have gone to the web site
48 when we click on search button
49 and we enter: samsung
50 then we will get results for samsung
51
52 Scenario: testing for social media button functionality
53 Given we have gone to the web site
54 when we click on twitter icon
55 then we will be at indusmagazine twitter account page
56
57 Scenario: testing the popular tab
58 Given we have gone to the web site
59 when we click on popular tab
60 and we select an article
61 then we will navigate to the selected article
62
63 Scenario: testing the scrollbar on the page
64 Given we have gone to the web site
65 when we click on the right scroll and left scroll buttons
66 then we say the button is working
67
68 Scenario: testing the contact functionality
69 Given we have gone to the web site
70 when we click on contact
71 and we enter input "somwya" as name
72 and we enter input "tumatisomya@outlook.com" as emailid
73 and we enter input "testing" as your message
74 and we dont check on i am not a robot
75 and we click on send
76 then we get an error message
77
78 Scenario: testing the functionality of share button
79 Given we have gone to the web site
80 when we search for chippates
81 and we click on the first article
82 and we click on share
83 and we click on opnus button
84 then we see a new browser opening
85
86 Line 85, Column 8 Tab Size: 4 Plain Text

C:\Users\anjith\Desktop\features\opening.feature - Sublime Text (UNREGISTERED)
File Edit Selection Find View Goto Tools Project Preferences Help
indus_mag.py x opening.feature x
61
62
63
64 Scenario: testing the scrollbar on the page
65 Given we have gone to the web site
66 when we click on the right scroll and left scroll buttons
67 then we will navigate to the selected article
68
69 Scenario: testing the contact functionality
70 Given we have gone to the web site
71 when we click on contact
72 and we enter input "somwya" as name
73 and we enter input "tumatisomya@outlook.com" as emailid
74 and we enter input "testing" as your message
75 and we dont check on i am not a robot
76 and we click on send
77 then we get an error message
78
79 Scenario: testing the functionality of share button
80 Given we have gone to the web site
81 when we search for chippates
82 and we click on the first article
83 and we click on share
84 and we click on opnus button
85 then we see a new browser opening
86
87 Line 61, Column 8 Tab Size: 4 Plain Text

```

## CODE:

The image displays three separate windows of Sublime Text, each showing a different section of a Python file named `indus_mag.py`. The code is part of a feature file for a web application, likely using Selenium and behave.

```

1 from selenium import webdriver
2 import time
3 from selenium.webdriver.common.keys import Keys
4 from selenium.webdriver.common.action_chains import ActionChains
5 from selenium.webdriver.support.ui import WebDriverWait
6 from selenium.webdriver.support import expected_conditions
7 from selenium.webdriver.common.by import By
8 import unittest
9
10 @given('we have gone to the web site')
11 def step_impl(context):
12     context.browser.get("http://www.indusmagazine.com")
13     time.sleep(4)
14
15 @when('we click on the logo')
16 def step_impl(context):
17     logo = context.browser.find_element_by_xpath("//*[@id='main-nav']/nav/div/div[1]/a[1]/img")
18     logo.click()
19
20 @then('we will be at the indusmagazine home page')
21 def step_impl(context):
22     assert ("Tech - Indus Mag" in context.browser.title)
23
24 @when('we click on technology button')
25 def step_impl(context):
26     tech_button = context.browser.find_element_by_xpath("//*[@id='mega-menu-item-2609']/a")
27     tech_button.click()
28
29 @when('we click on business button')
30 def step_impl(context):
31     bus_button = context.browser.find_element_by_xpath("//*[@id='mega-menu-item-2610']/a")
32     bus_button.click()
33
34 @when('we click on reviews button')
35 def step_impl(context):
36     reviews_button = context.browser.find_element_by_xpath("//*[@id='mega-menu-item-2611']/a")
37     reviews_button.click()
38
39 @when('we click on featured button')
40 def step_impl(context):
41     featured_button = context.browser.find_element_by_xpath("//*[@id='mega-menu-item-2612']/a")
42     featured_button.click()
43
44 @when('we click on gaming button')
45 def step_impl(context):
46     game_button = context.browser.find_element_by_xpath("//*[@id='mega-menu-item-9865']/a")
47     game_button.click()
48
49 @when('we click on home button')
50 def step_impl(context):
51     home_button = context.browser.find_element_by_xpath("//*[@id='mega-menu-item-2607']/a")
52     home_button.click()
53
54 @then('we will be at home page and all buttons are working')
55 def step_impl(context):
56     assert ("Tech - Indus Mag" in context.browser.title)
57     time.sleep(5)
58
59 @when('we click on sign up')
60 def step_impl(context):
61     sign_up = context.browser.find_element_by_xpath("//*[@id='nav-menu-item-9846']/a")
62     sign_up.click()
63
64 @when('we enter input "(text)" as username')
65 def step_impl(context, text):
66     input = context.browser.find_element_by_xpath("//*[@id='user_login']")
67     input.clear()
68     input.send_keys(text)
69     time.sleep(3)
70
71 @when('we enter input "(text)" as email')
72 def step_impl(context, text):
73     input = context.browser.find_element_by_xpath("//*[@id='user_email']")
74     input.clear()
75     input.send_keys(text)
76     time.sleep(3)
77
78 @when('we click on Register')
79 def step_impl(context):
80     register_button = context.browser.find_element_by_xpath("//*[@id='wp-submit']")
81     register_button.click()
82     time.sleep(3)
83
84 @then('we will be at confirmation page')
85 def step_impl(context):
86     assert ("Indus Mag" in context.browser.title)
87     time.sleep(5)
88
89 @when('we click on log in button')
90 def step_impl(context):
91     login_button = context.browser.find_element_by_xpath("//*[@id='nav-menu-item-9845']/a")
92     login_button.click()
93     time.sleep(3)
94
95 @when('we enter input "(text)" as username/email')
96 def step_impl(context, text):
97     input = context.browser.find_element_by_xpath("//*[@id='user_login']")
98     input.clear()
99     input.send_keys(text)
100    time.sleep(3)
101
102 @when('we enter input "(text)" as password')
103 def step_impl(context, text):
104     input = context.browser.find_element_by_xpath("//*[@id='user_pass']")
105     input.clear()
106     input.send_keys(text)
107     time.sleep(3)
108
109 @when('we click on login')
110 def step_impl(context):
111     login = context.browser.find_element_by_xpath("//*[@id='wp-submit']")
112     login.click()
113     time.sleep(3)
114
115 @then('we should get an error saying the user is already registered')
116 def step_impl(context):
117     pass
118
119 @when('we will be at users profile page')
120 def step_impl(context):
121     assert ("Indus" in context.browser.title)
122     time.sleep(5)
123
124 @when('we click on search button')
125 def step_impl(context):
126     search = context.browser.find_element_by_xpath("//*[@id='main-nav']/nav/div/div[3]/ul/li[7]/a")
127     search.click()
128     time.sleep(1)
129
130 @when('we click on the first article')
131 def step_impl(context):
132     pass
133
134

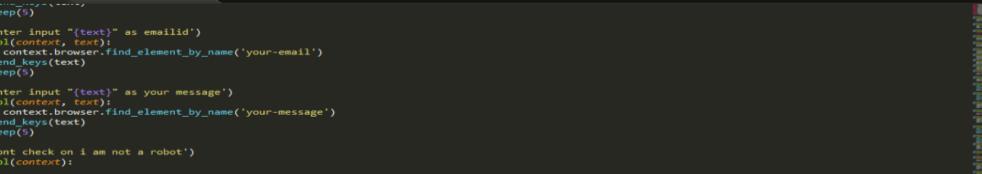
```

The code defines various steps for navigating through the website's menu, performing sign-up and log-in operations, and interacting with the search function. It uses Selenium's WebDriver and ActionChains, along with WebDriverWait and expected\_conditions for waits and assertions.



The screenshot shows a Sublime Text window with the following details:

- Title Bar:** C:\Users\rajan\Desktop\featurestests\indus\_mag.py - Sublime Text (UNREGISTERED)
- Menu Bar:** File Edit Selection Find View Goto Tools Project Preferences Help
- Code Area:** The code is a Python script for a feature test. It uses the `indus_mag.py` file as the base. The code includes several `@when`, `@then`, and `def step_implementation` blocks. It interacts with a browser to perform actions like clicking on blog items, searching for 'samsung', clicking on Twitter icons, and interacting with contact forms.
- Right Panel:** A sidebar on the right displays a tree view of the project structure, showing files like `conftest.py`, `opening.feature`, and `step_definitions.py`.
- Status Bar:** Line 111, Column 9 / Spaces: 4 / Python



```
File Edit Selection Find Tools Project Preferences Help
indus_mag.py x opening.feature x
169     time.sleep(5)
170
171 @when('we enter input "[text]" as emailid')
172 def step_impl(context, text):
173     input = context.browser.find_element_by_name('your-email')
174     input.send_keys(text)
175     time.sleep(5)
176
177 @when('we enter input "[text]" as your message')
178 def step_impl(context, text):
179     input = context.browser.find_element_by_name('your-message')
180     input.send_keys(text)
181     time.sleep(5)
182
183 @when('we dont check on i am not a robot')
184 def step_impl(context):
185     pass
186
187 @when('we click on send')
188 def step_impl(context):
189     send = context.browser.find_element_by_xpath("//[@id='wpcf7-f2309-p667-o1']/form/p[5]/input")
190     send.click()
191     time.sleep(3)
192
193 @then('we get an error message')
194 def step_impl(context):
195     time.sleep(2)
196
197
198 @then('we get confirmation message')
199 def step_impl(context):
200     assert "Indus Mag" in context.browser.title
201     time.sleep(5)
202
203 @when('we click on popular tab')
204 def step_impl(context):
205     popular = context.browser.find_element_by_xpath("//[@id='tabtitle-popular_posts_id-5']/a")
206     popular.click()
207
208 @when('we click on article')
209 def step_impl(context):
210     article = context.browser.find_element_by_xpath("//[@id='tab-popular_posts_id-5']/div/div[2]/div[1]/div[2]/h3/a")
211     article.click()
212
213
214
```

```
C:\Users\ranjith\Desktop\features\steps\indus_mag.py - Sublime Text (UNREGISTERED)
File Edit Selection Find View Goto Tools Project Preferences Help
indus_mag.py x opening.feature x
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```

```

C:\Users\ranjit\Desktop\features\steps\indus_mag.py - Sublime Text (UNREGISTERED)
File Edit Selection Find View Goto Tools Project Preferences Help
indus_mag.py      opening.feature
232
233 @when('we search for chipgate')
234 def step_impl(context):
235     search_entry = context.browser.find_element_by_xpath("//*[@id='main-nav']/nav/div/div[3]/ul/li[8]/form/input")
236     search_entry.clear()
237     search_entry.send_keys("chipgate")
238     search_entry.send_keys(Keys.RETURN)
239     time.sleep(10)
240
241 @when('we click on share')
242 def step_impl(context):
243     share_button = context.browser.find_element_by_xpath('//*[@id="post-469"]/div/div[2]/div/a')
244     share_button.click()
245     time.sleep(2)
246
247 @when('we click on Gplus button')
248 def step_impl(context):
249     gplus_button = context.browser.find_element_by_xpath('//*[@id="post-469"]/div/div[2]/div/div[3]/a/i')
250     gplus_button.click()
251     time.sleep(3)
252
253 @then('we see a new browser opening')
254 def step_impl(context):
255     pass
256

```

Line 113, Column 9      Spaces: 4      Python

## Results of execution

```

C:\ Command Prompt - behave
Microsoft Windows [Version 10.0.14393]
(c) 2016 Microsoft Corporation. All rights reserved.

C:\Users\ranjit\Desktop>cd desktop
C:\Users\ranjit\Desktop>behave
Feature: Opening a web site and testing the ten functionalities of Indus Magazine website # features\opening.feature:1

```

```

cmd Command Prompt
Microsoft Windows [Version 10.0.14393]
(c) 2016 Microsoft Corporation. All rights reserved.

C:\Users\ranjit\Desktop>behave
Feature: Opening a web site and testing the ten functionalities of Indus Magazine website # features\opening.feature:1

  Scenario: go to the web site          # features\opening.feature:4
    Given we have gone to the web site  # features\steps\indus_mag.py:10
    When we click on the logo          # features\steps\indus_mag.py:15
    Then we will be at the Indusmagazine home page # features\steps\indus_mag.py:20

  Scenario: testing the buttons on navigation bar      # features\opening.feature:9
    Given we have gone to the web site  # features\steps\indus_mag.py:10
    When we click on login button     # features\steps\indus_mag.py:24
    And we click on business button   # features\steps\indus_mag.py:29
    And we click on reviews button    # features\steps\indus_mag.py:34
    And we click on featured button   # features\steps\indus_mag.py:38
    And we click on gaming button     # features\steps\indus_mag.py:42
    And we click on home button       # features\steps\indus_mag.py:46
    Then we will be at home page and all buttons are working # features\steps\indus_mag.py:50

  Scenario: testing the sign up functionality      # features\opening.feature:20
    Given we have gone to the web site  # features\steps\indus_mag.py:10
    When we click on sign up          # features\steps\indus_mag.py:55
    And we enter input "ran.som99@gmail.com" as username # features\steps\indus_mag.py:60
    And we enter input "ran.som99@gmail.com" as email    # features\steps\indus_mag.py:67
    And we click on Register         # features\steps\indus_mag.py:74
    Then we will be at confirmation page # features\steps\indus_mag.py:80

  Scenario: testing the sign up functionality      # features\opening.feature:28
    Given we have gone to the web site  # features\steps\indus_mag.py:10
    When we click on sign up          # features\steps\indus_mag.py:55
    And we enter input "chennam" as username # features\steps\indus_mag.py:60
    And we enter input "chennam@gmail.com" as email    # features\steps\indus_mag.py:67
    And we click on Register         # features\steps\indus_mag.py:74
    Then we should get an error saying the user is already registered # features\steps\indus_mag.py:111

  Scenario: testing the sign in functionality      # features\opening.feature:37
    Given we have gone to the web site  # features\steps\indus_mag.py:10
    When we click on log in button    # features\steps\indus_mag.py:85
    And we enter input "tumatisowmya" as username/email # features\steps\indus_mag.py:92
    And we enter input "stmprojecttesting12" as password # features\steps\indus_mag.py:99
    Then we will be at confirmation page # features\steps\indus_mag.py:105

  Scenario: testing the sign up functionality      # features\opening.feature:20
    Given we have gone to the web site  # features\steps\indus_mag.py:10
    When we click on sign up          # features\steps\indus_mag.py:55
    And we enter input "chennam" as username # features\steps\indus_mag.py:60
    And we enter input "chennam@gmail.com" as email    # features\steps\indus_mag.py:67
    And we click on Register         # features\steps\indus_mag.py:74
    Then we should get an error saying the user is already registered # features\steps\indus_mag.py:111

  Scenario: testing the sign in functionality      # features\opening.feature:37
    Given we have gone to the web site  # features\steps\indus_mag.py:10
    When we click on log in button    # features\steps\indus_mag.py:85
    And we enter input "tumatisowmya" as username/email # features\steps\indus_mag.py:92
    And we enter input "stmprojecttesting12" as password # features\steps\indus_mag.py:99
    And we click on login            # features\steps\indus_mag.py:105
    Then we will be at users profile page # features\steps\indus_mag.py:115

  Scenario: testing the search functionality      # features\opening.feature:46
    Given we have gone to the web site  # features\steps\indus_mag.py:10
    When we click on search button   # features\steps\indus_mag.py:120
    And we enter samsung             # features\steps\indus_mag.py:133
    Then we will get results for samsung # features\steps\indus_mag.py:141

  Scenario: testing for social media button functionality # features\opening.feature:52
    Given we have gone to the web site  # features\steps\indus_mag.py:10
    When we click on twitter icon    # features\steps\indus_mag.py:146
    Then we will be at indusmagazine twitter account page # features\steps\indus_mag.py:152

  Scenario: testing the popular tab               # features\opening.feature:57
    Given we have gone to the web site  # features\steps\indus_mag.py:10
    When we click on popular tab     # features\steps\indus_mag.py:203
    And we select an article        # features\steps\indus_mag.py:207
    Then we will navigate to the selected article # features\steps\indus_mag.py:222

  Scenario: testing the scrollbar on the page      # features\opening.feature:64
    Given we have gone to the web site  # features\steps\indus_mag.py:10
    When we click on the right scroll and left scroll buttons # features\steps\indus_mag.py:216
    Then we say the button is working # features\steps\indus_mag.py:229

  Scenario: testing the contact functionality      # features\opening.feature:69
    Given we have gone to the web site  # features\steps\indus_mag.py:10
    When we click on contact        # features\steps\indus_mag.py:159
    And we enter input "sowmya" as name # features\steps\indus_mag.py:165
    And we enter input "tumatisowmya@outlook.com" as emialid # features\steps\indus_mag.py:171
    And we enter input "testing" as your message # features\steps\indus_mag.py:177
    And we dont check on i am not a robot # features\steps\indus_mag.py:183
    And we click on send            # features\steps\indus_mag.py:187
    Then we get an error message   # features\steps\indus_mag.py:193

  Scenario: testing the functionality of share button # features\opening.feature:79
    Given we have gone to the web site  # features\steps\indus_mag.py:10
    When we search for chipgate    # features\steps\indus_mag.py:233
    And we click on the first article # features\steps\indus_mag.py:126
    And we click on share           # features\steps\indus_mag.py:241
    And we click on Gplus button   # features\steps\indus_mag.py:247
    Then we see a new browser opening # features\steps\indus_mag.py:253

1 feature passed, 0 failed, 0 skipped
11 scenarios passed, 0 failed, 0 skipped
57 steps passed, 0 failed, 0 skipped, 0 undefined
Took 6m14.336s

```

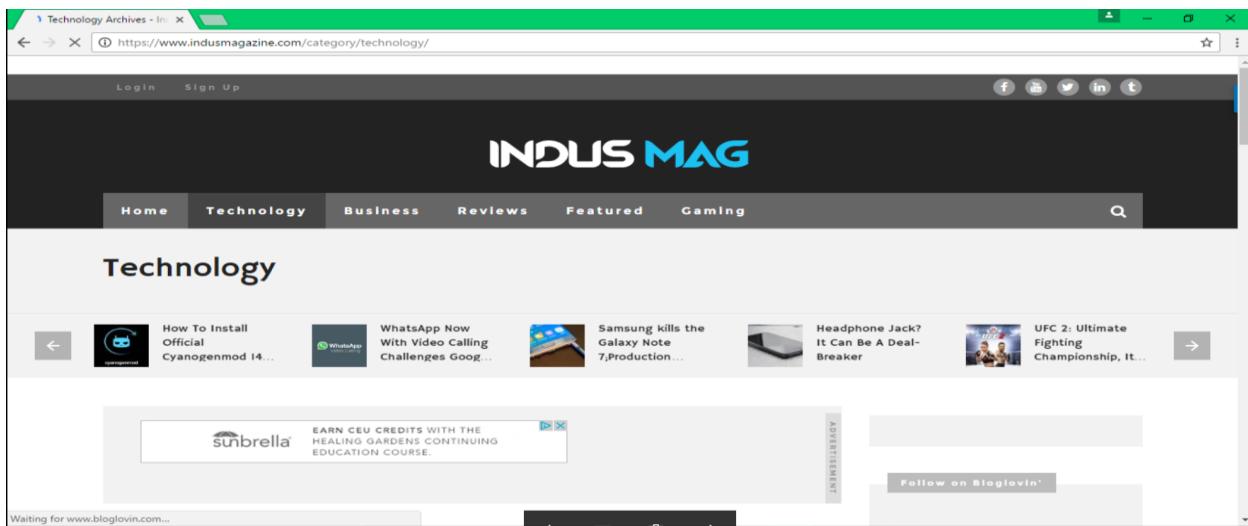
Screenshots for each requirement:

### Requirement 01: Web page must be launched and Website Logo must work

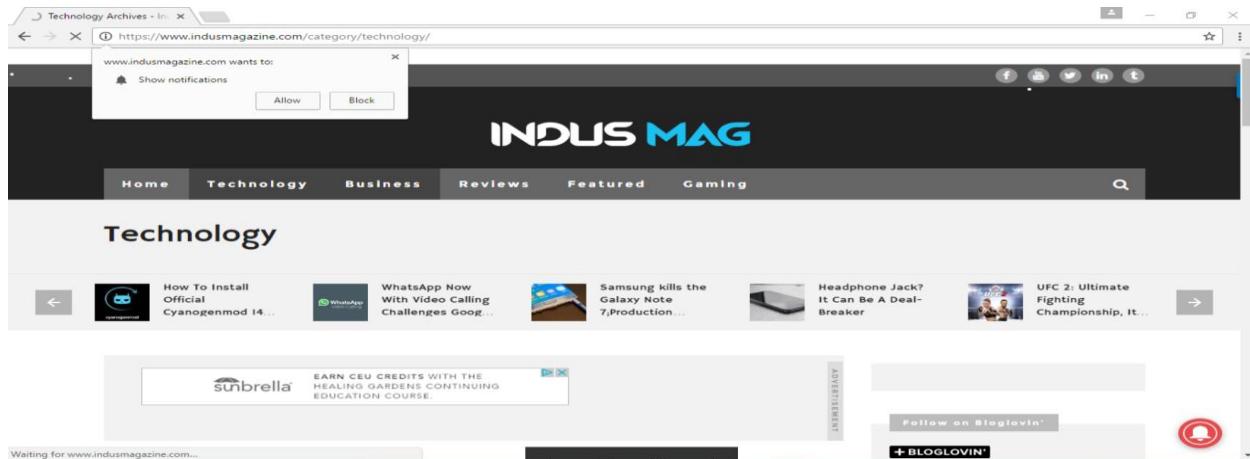


### Requirement 02: Buttons on the navigation bar must work to navigate to the respected category page

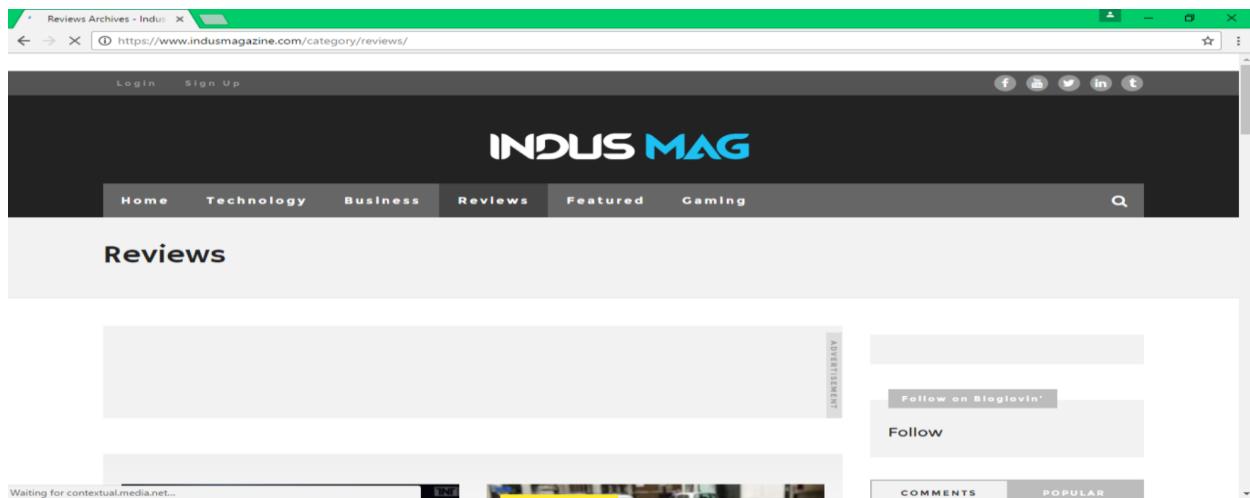
Click on Technology button



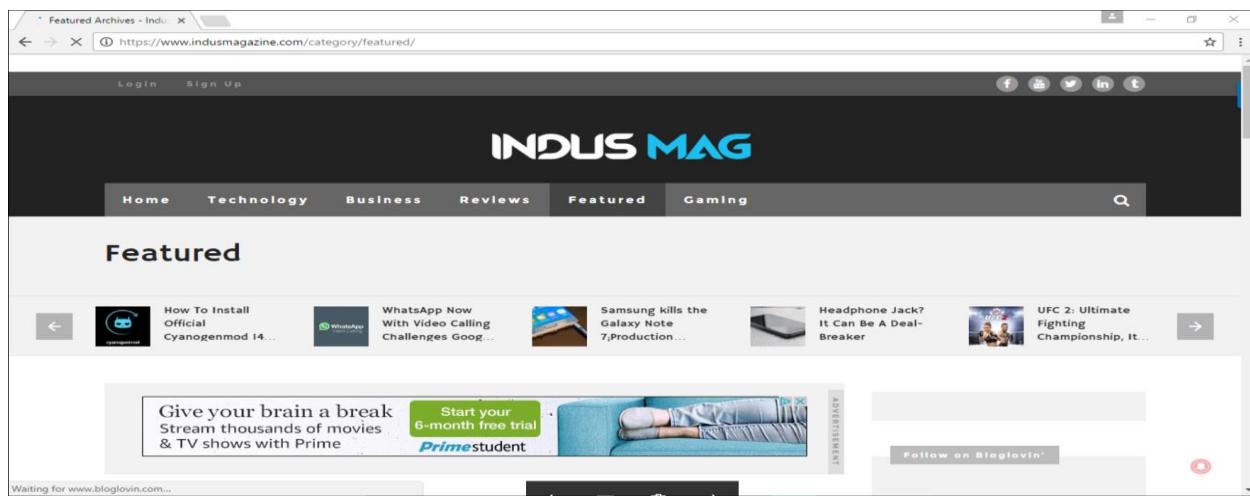
## Click on Business button



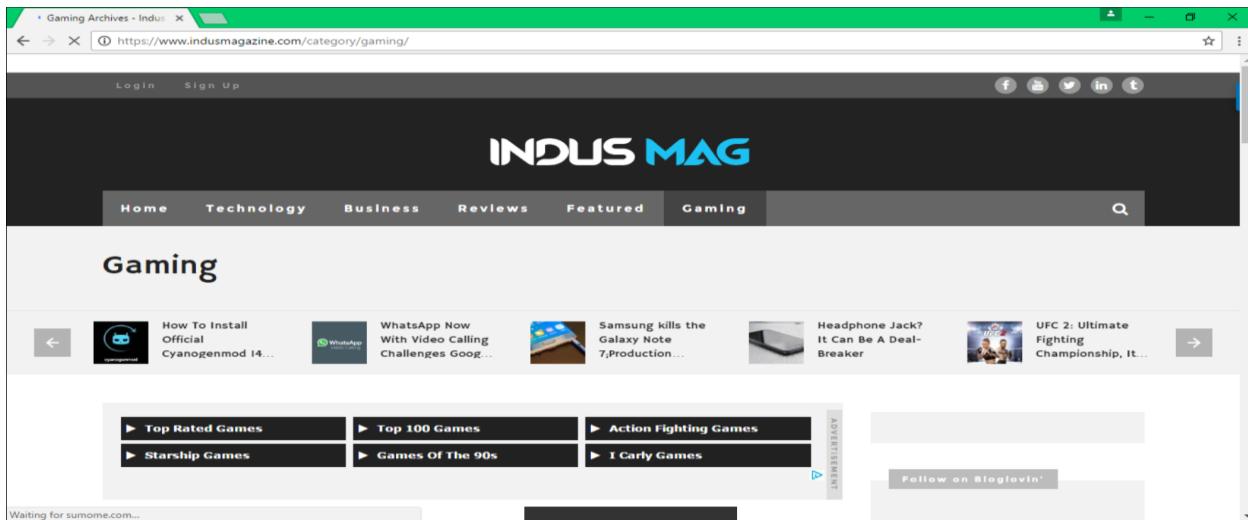
## Click on reviews button



## Click on Featured button



**Click on gaming button**



**Click on Home button return to home page and requirement is satisfied**



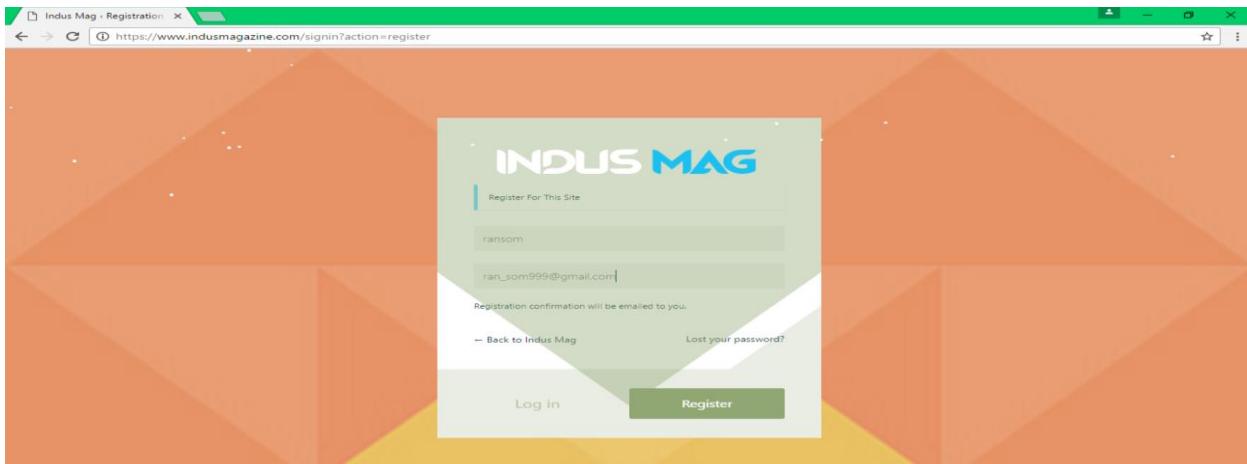
**Requirement 03: Sign up functionality must work for creating an account**



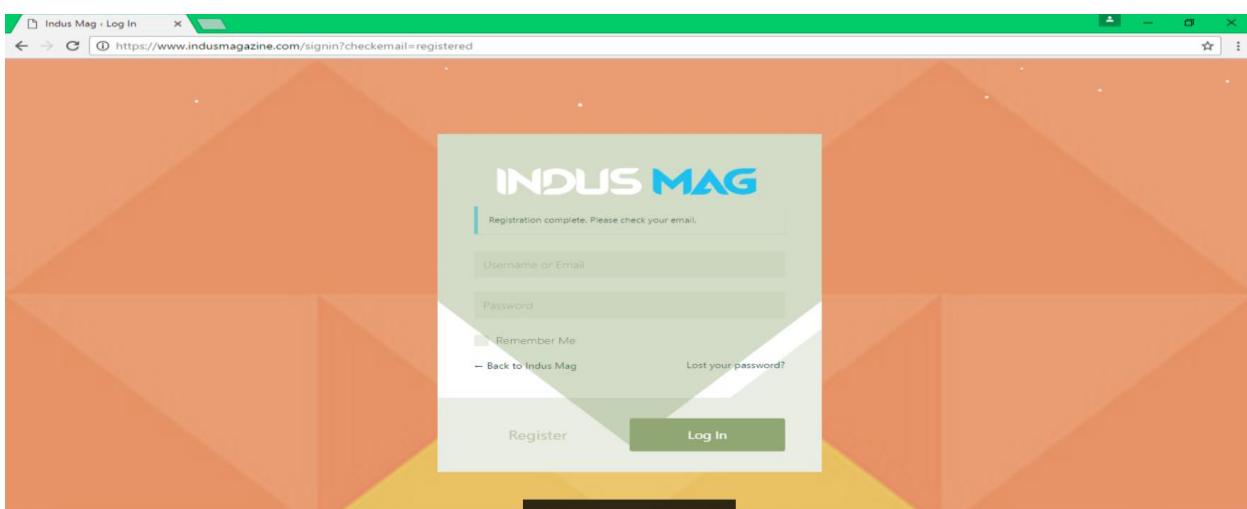
### Sign-Up page and username is entered



### Email address is entered in the input field



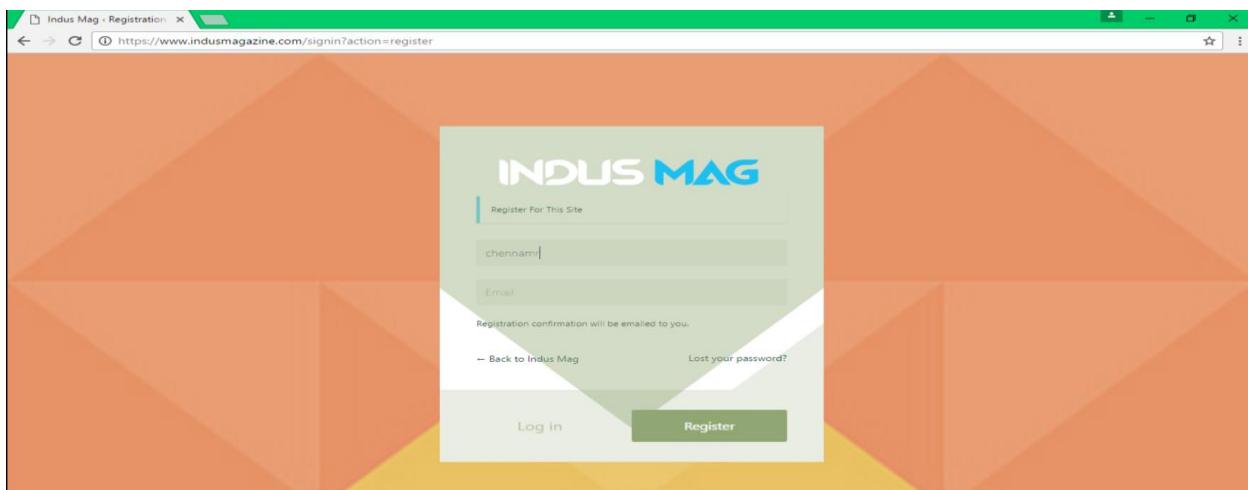
### Confirmation step after submitting details for registration



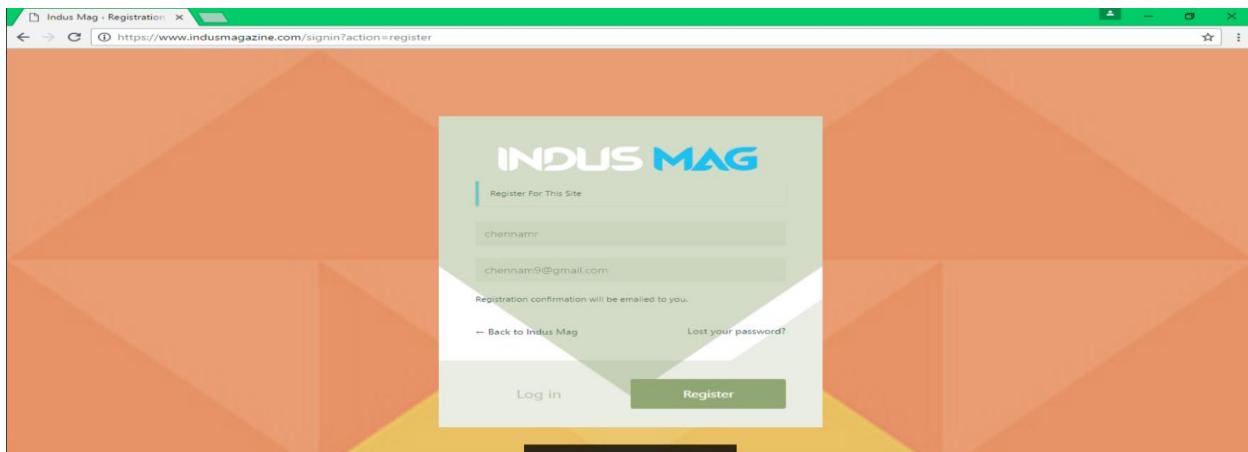
**Requirement 04: When signing up with the already registered credential should say user is already registered**



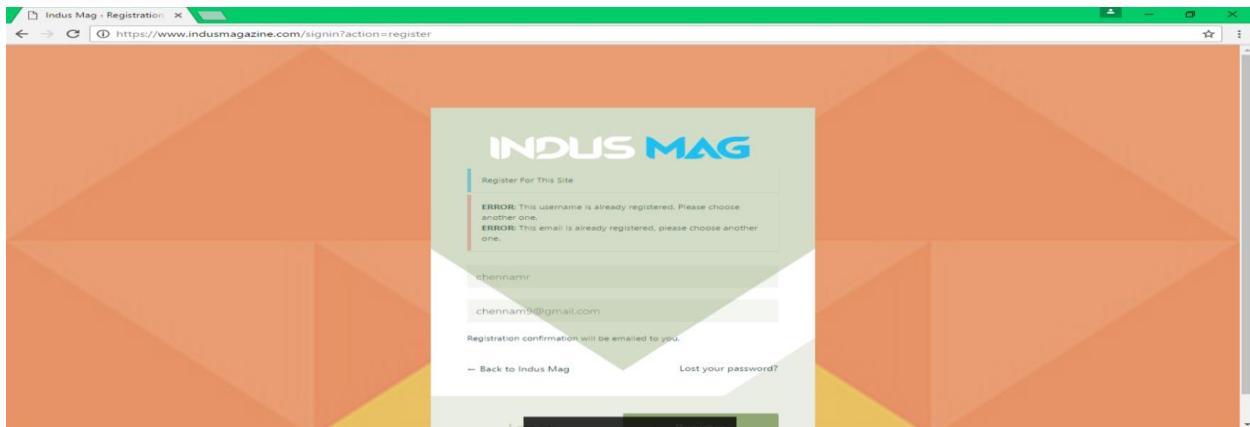
Sing-Up page and already used username is entered



Already used email address is entered in the email address input field



Error message is displayed stating user already registered with same username and email address



**Requirement 05:** Sign in functionality must work for signing into the website



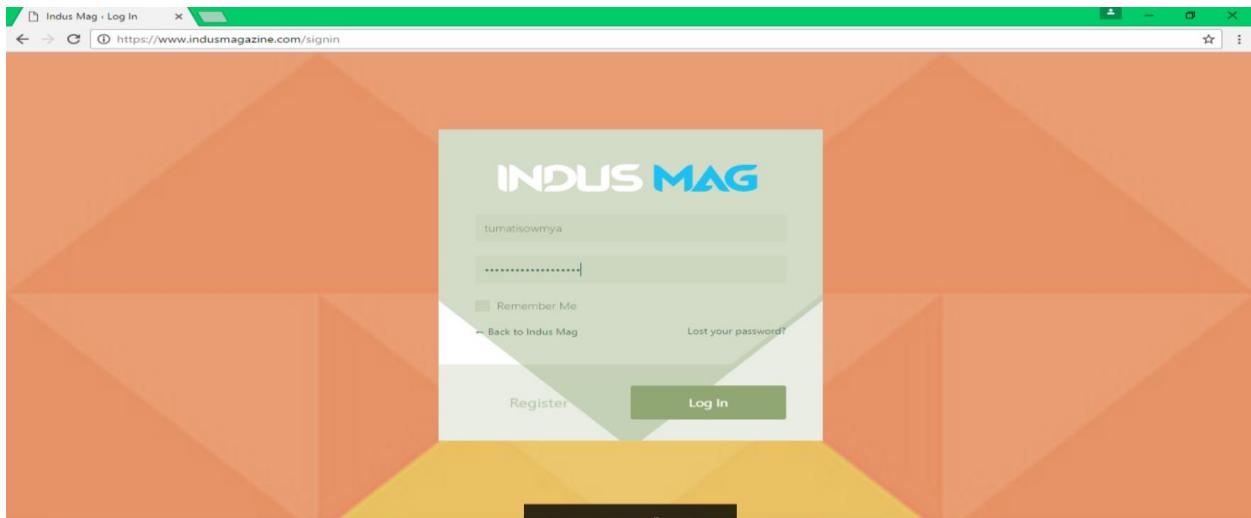
Navigated to sign-in page



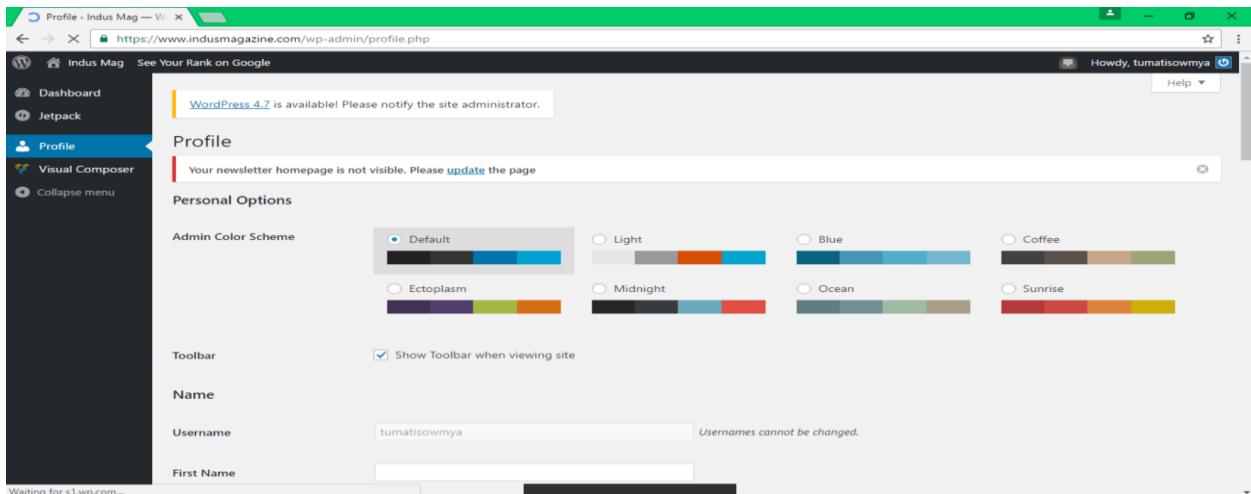
**Username is entered in the username input field**



**Password is entered in the password input field**



**Upon click on Log In user is logged in and navigated to the user profile page**



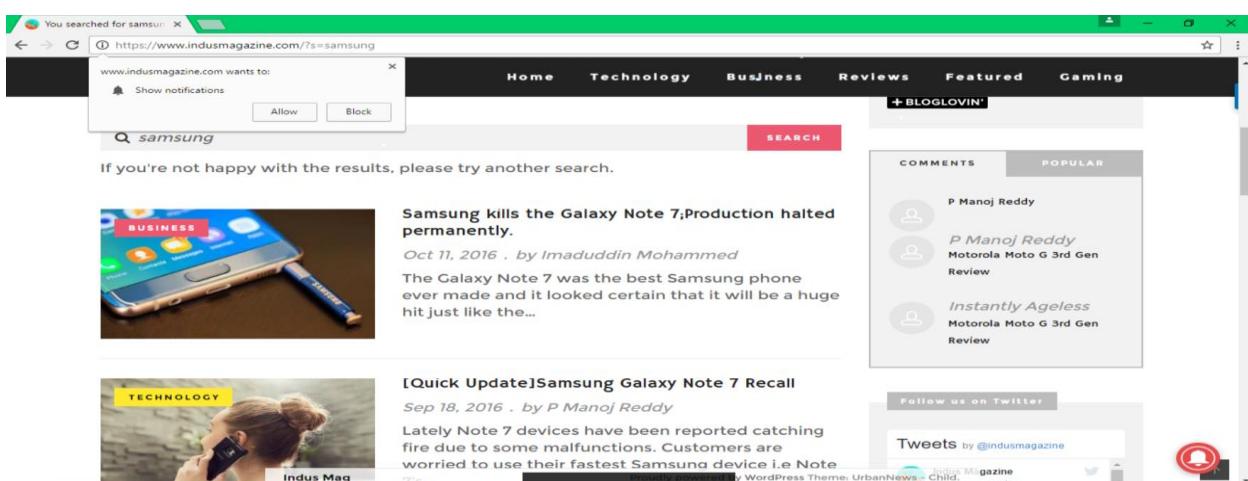
## Requirement 06: Search option must work for searching per the keyword entered



Keyword “Samsung” is entered in the input field for search



Results are displayed for Samsung



## Requirement 07: Navigation to social media sites must work when clicked on icons

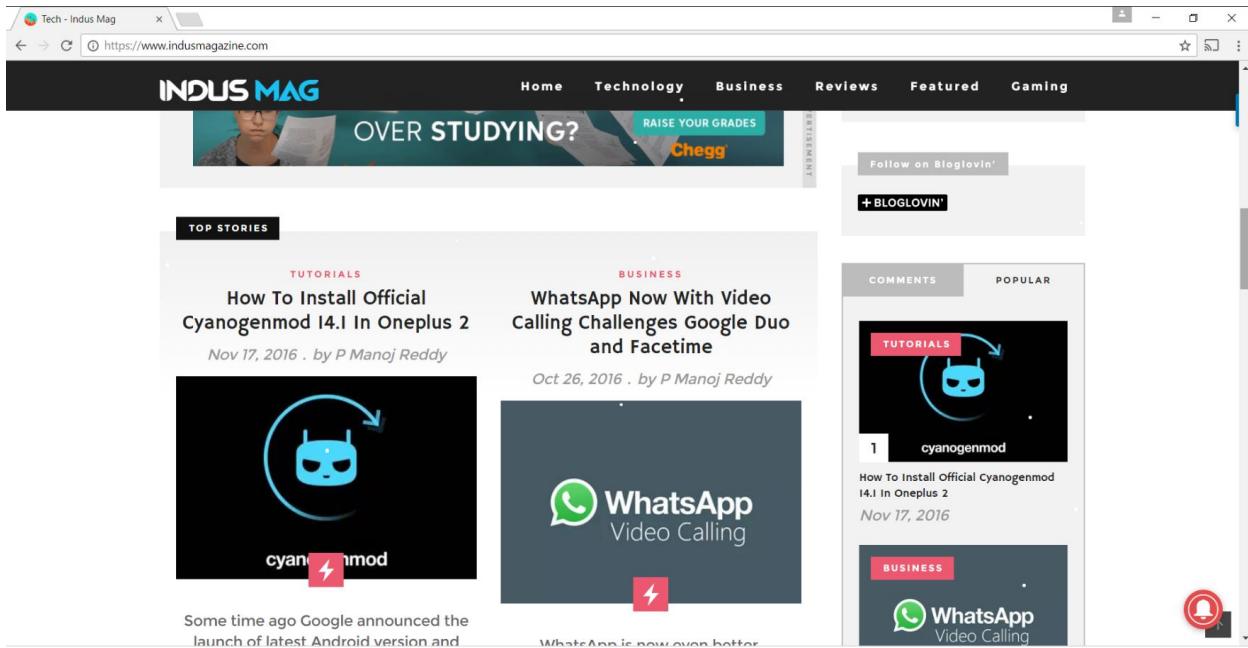


Navigated to twitter account page of Indus Magazine founder

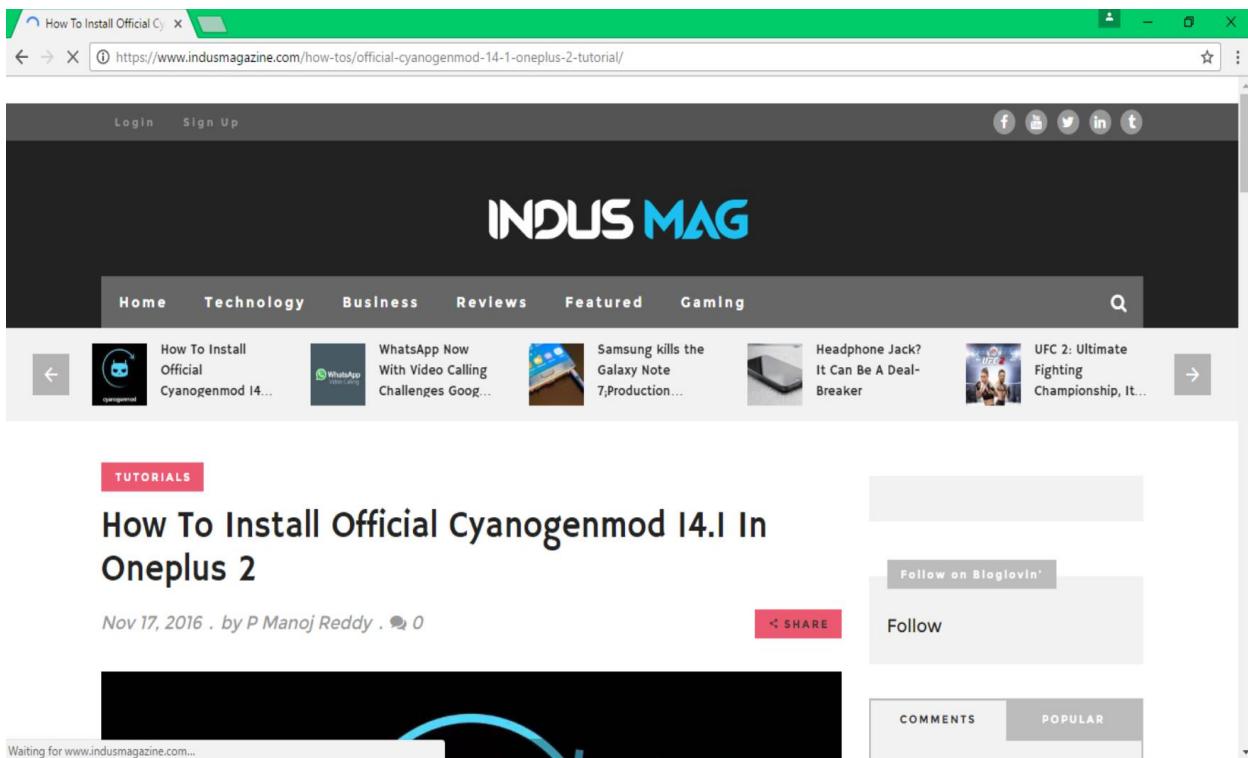


## Requirement 08: Selecting an article from the list of articles in the popular button

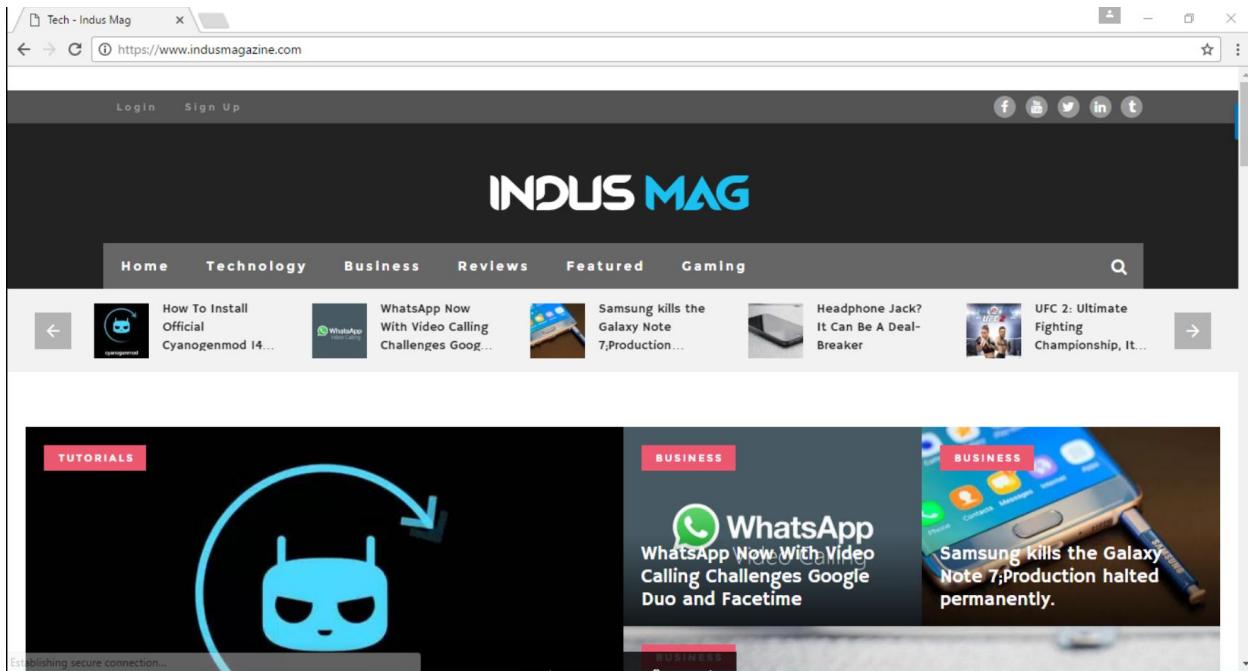
Popular button is clicked and articles under it are displayed as list



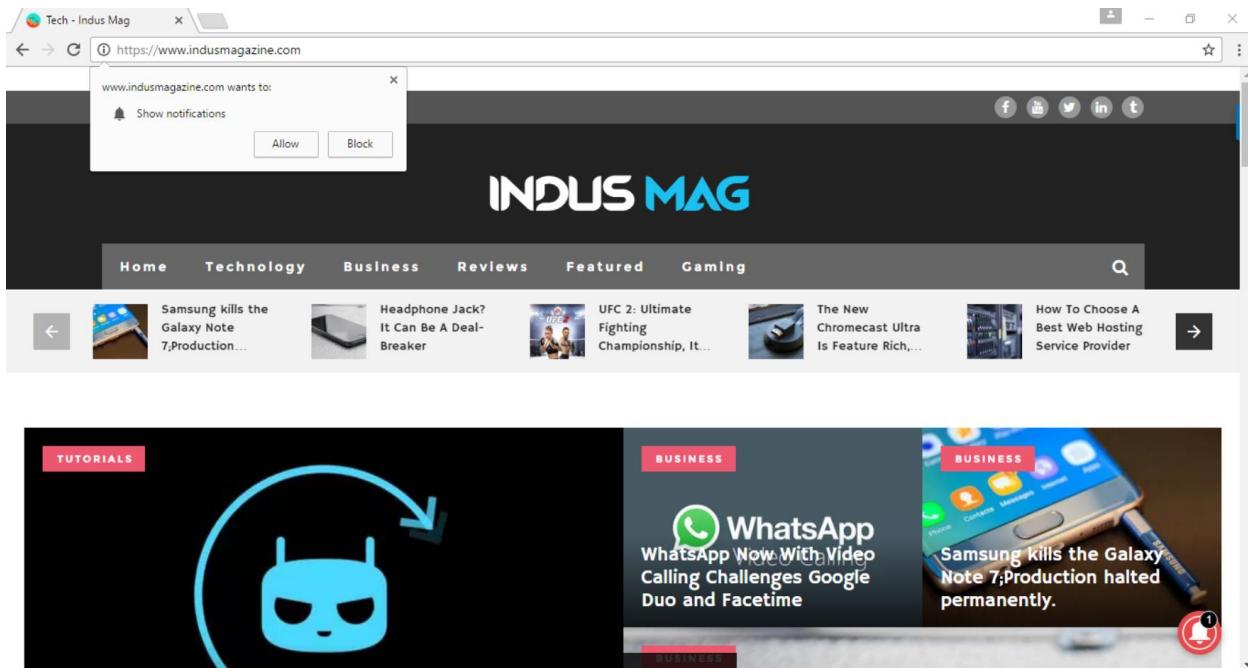
Official Cyanogen mod article is selected and clicked and then the page is navigated to the respective article page



**Requirement 09: Arrows on the slider on the webpage must work moving the article contents in the clicked direction**



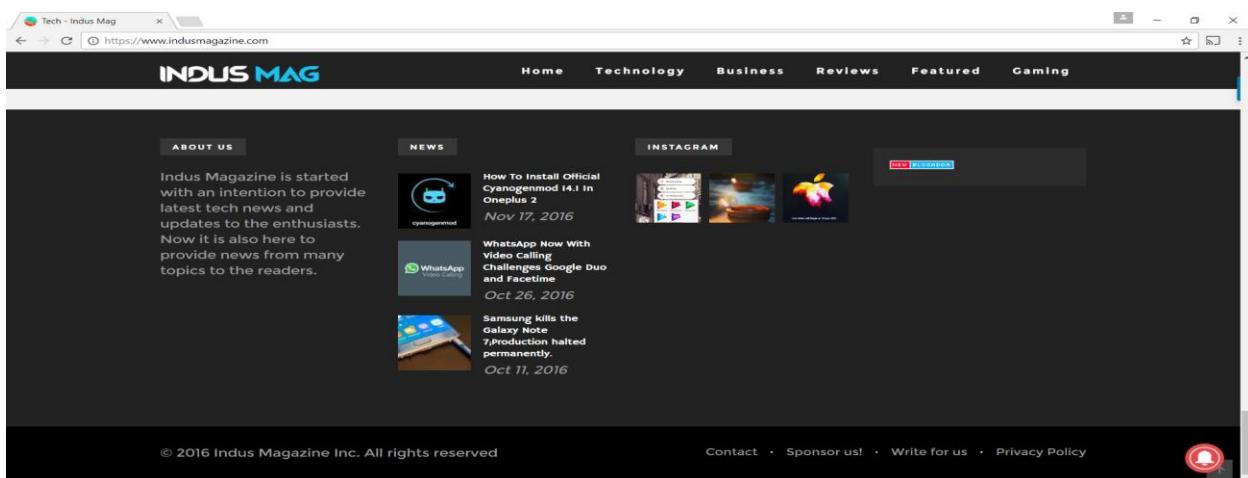
Right arrow on the slider is clicked and articles are moved



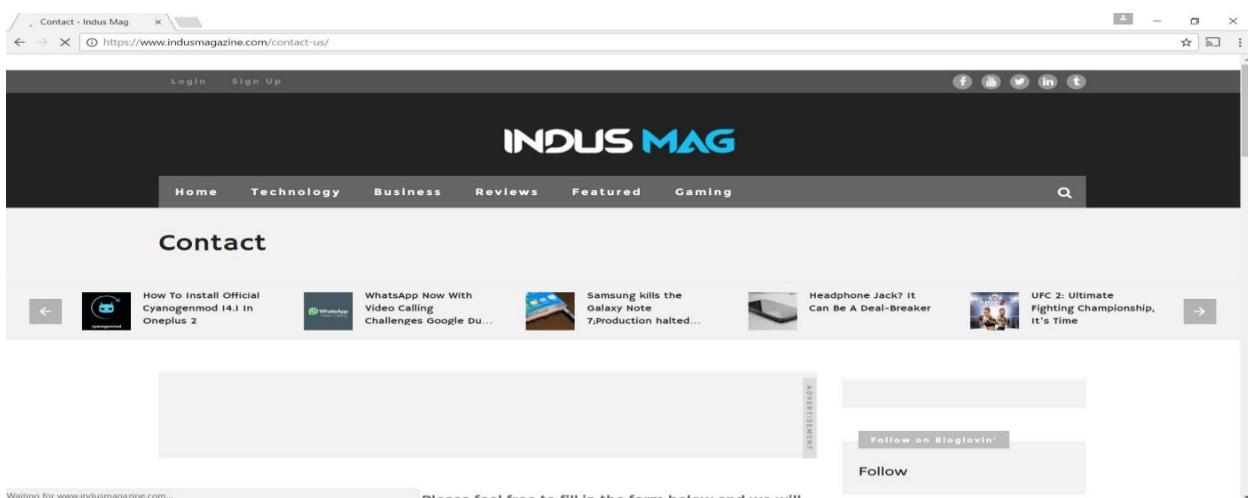
**Left arrow is clicked on the slider and the articles are moved**



**Requirement 10:** Submitting a message in the contact section without verifying should raise an error



Contact button is clicked and page is navigated to contact page



## Name is entered in the input field of name

The screenshot shows a web browser window for 'Contact - Indus Mag' at <https://www.indusmagazine.com/contact-us/>. The page features a black header with the 'INDUS MAG' logo and navigation links for Home, Technology, Business, Reviews, Featured, and Gaming. A sidebar on the right displays social media links for Bloglovin' and Twitter, along with a 'Comments' section showing a post from 'P Manoj Reddy' about a Motorola Moto G 3rd Gen Review. The main content area contains a form for contacting the magazine. The 'Your Name (required)' field has the value 'sowmya' entered. Below it are fields for 'Your Email (required)', 'Subject', and 'Your Message'.

## Email and message are entered in the email and message input field

This screenshot shows the same contact page as above, but with more data entered. The 'Your Email (required)' field now contains 'tumatisowmya@outlook.com'. The 'Your Message' field contains the text 'testing'.

## An error message is raised when clicked on send without verifying

In this final screenshot, the user has clicked the 'Send' button without verifying they are not a robot. A red error message box appears, stating: 'Please verify that you are not a robot.' Below the form, a note says: 'Failed to send your message. Please try later or contact the administrator by another method.' At the bottom left, it indicates '(Visited 128 times, 2 visits today)'. The right sidebar continues to show social media links and a 'Comments' section.

**Requirement 11: Share option on the webpage must work for sharing the article in the social media**

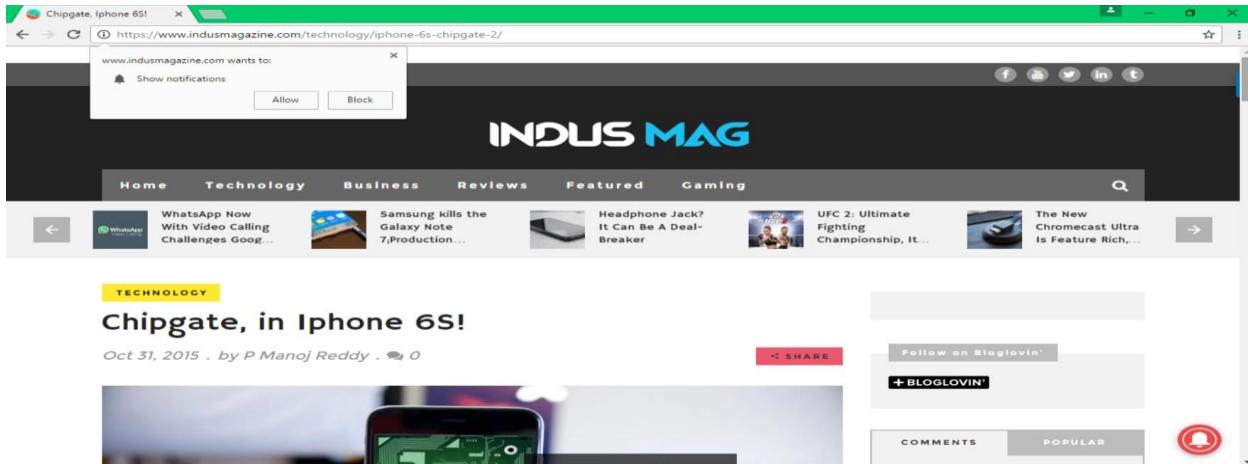
### Chipgate is searched

The screenshot shows a web browser window with the URL <https://www.indusmagazine.com/?s=chipgate>. The page title is "Search Results for chipgate". The main content area displays several news articles with thumbnails and titles. A "ADVERTISEMENT" banner is visible on the right side.

**Results for Chipgate are displayed**

The screenshot shows a web browser window with the URL <https://www.indusmagazine.com/?s=chipgate>. A notification overlay from the website asks "www.indusmagazine.com wants to: Show notifications" with "Allow" and "Block" buttons. The main content area shows search results for "chipgate", including an article titled "Chipgate, in Iphone 6S!" and another titled "'Apple' and It's 'Display'". A sidebar on the right shows comments and popular reviews. A "Follow us on Twitter" section with a "Tweets by @indusmagazine" feed is also present.

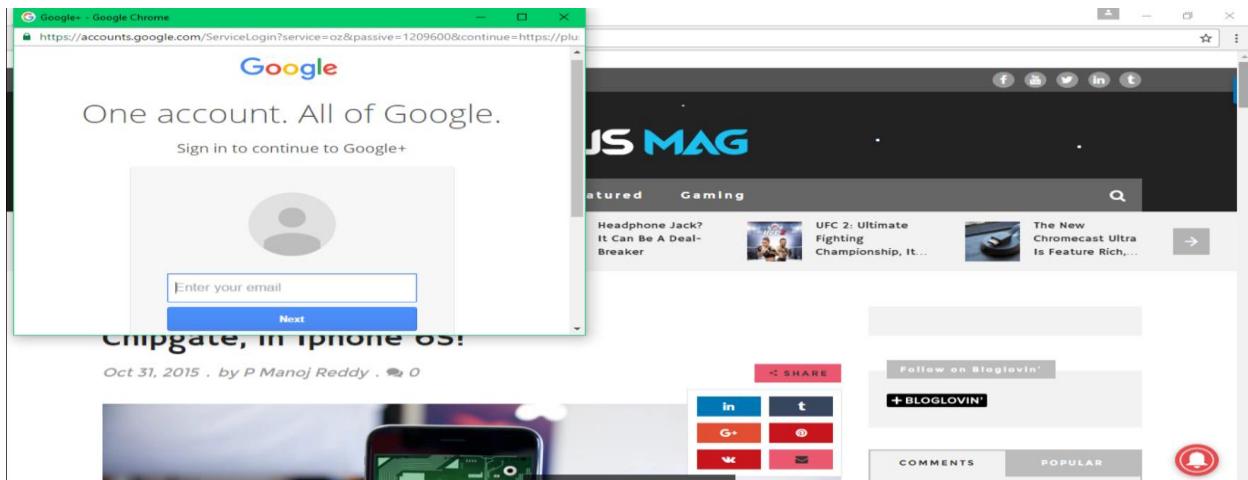
First article in the Chipgate results is selected and clicked and the page is navigated to article



We click on share button for sharing in social media and we get various social media options

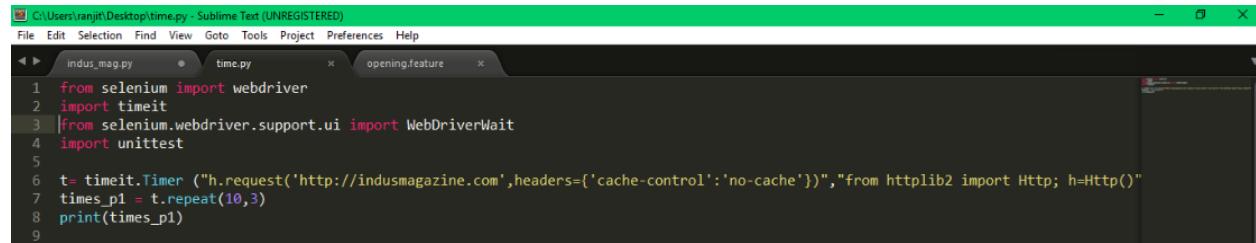


We select sharing the article through google plus and google account page is opened in browser

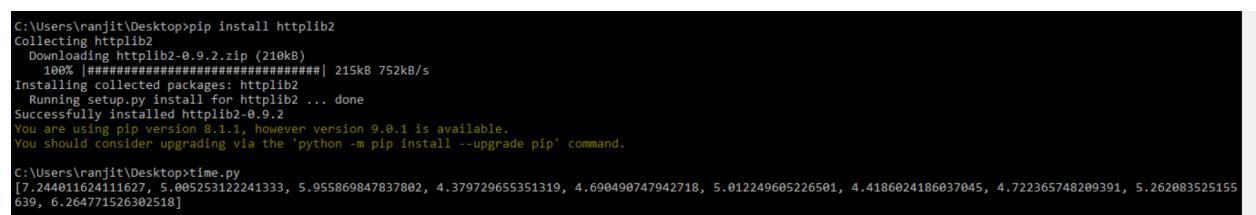


We have also tested the responsiveness of the website by running the code set for ten times with three trials per each set.

So, we get ten results with average time taken to hit the website for all trials.



```
1 from selenium import webdriver
2 import timeit
3 from selenium.webdriver.support.ui import WebDriverWait
4 import unittest
5
6 t = timeit.Timer ("h.request('http://indusmagazine.com',headers={'cache-control':'no-cache'})","from httplib2 import Http; h=Http()")
7 times_p1 = t.repeat(10,3)
8 print(times_p1)
9
```

```
C:\Users\ranjit\Desktop>pip install httplib2
Collecting httplib2
  Downloading httplib2-0.9.2.zip (210kB)
    100% |#####| 215kB 752kB/s
Installing collected packages: httplib2
  Running setup.py install for httplib2 ... done
Successfully installed httplib2-0.9.2
You are using pip version 8.1.1, however version 9.0.1 is available.
You should consider upgrading via the 'python -m pip install --upgrade pip' command.

C:\Users\ranjit\Desktop>time.py
[7.24401624111627, 5.095253122241333, 5.955869847837802, 4.379729655351319, 4.690490747942718, 5.012249605226501, 4.4186024186037045, 4.722365748209391, 5.262083525155
639, 6.264771526302518]
```

**b) Recommendations:** Indus Magazine website has all the functionalities working properly. Coming to the effectiveness, responsiveness of the website could be made better, number of functionalities should be raised for attracting the users or clients by making the search or the way users interact with the website easy and sorted. User interface can be more attractive for effective interactions

#### 4. Describe what you learned in the process

In the process of testing a website, I have learned analyzing and writing requirements for the website, writing a test plan, how the estimates are done for the project. Apart from the way of documentation I have also learnt working with automated tests in BDD framework using selenium web driver. While automating the test, I have learnt how the page interactions are carried out with the elements on the page and how the responsiveness of the page is. These all gives a better understanding of all the important aspects which are important for testing and functioning a website in automated environment and for success of testing.