

INTERDISCIPLINARY PROJECT REPORT

at

**Sathyabama Institute of Science and Technology
(Deemed to be University)**

Submitted in partial fulfillment of the requirements for the
award of Bachelor of Technology Degree in
Information Technology

By

Jacob raja T

(Reg. No.39120041)



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SCHOOL OF COMPUTING
SATHYABAMA INSTITUTE OF SCIENCE AND TECHNOLOGY
JEPPIAAR NAGAR, RAJIV GANDHI SALAI,
CHENNAI - 600 119**

APRIL 2022



SATHYABAMA

INSTITUTE OF SCIENCE AND TECHNOLOGY

(DEEMED TO BE UNIVERSITY)

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SCHOOL OF COMPUTING

BONAFIDE CERTIFICATE

This is to certify that this Project Report is the bonafide work of **Jacob raja T (Reg No. 39120041)** and who carried out the project entitled **“VALIDATION OF DATA CONTENTS IN THE ONLINE VIDEO PLATFORM USING SELENIUM TOOL AND TRACKING THE DEFECTS IN JIRA”** under our supervision from February 2022 to April 2022.

INTERNAL GUIDE

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HEAD OF THE DEPARTMENT

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Submitted for Viva voce Examination held on _____

Internal Examiner

External Examiner

DECLARATION

I **Jacob raja T (Reg No:39120041)** hereby declare that the Project Report entitled **“VALIDATION OF DATA CONTENTS IN THE ONLINE VIDEO PLATFORM USING SELENIUM TOOL AND TRACKING THE DEFECTS IN JIRA”** done by me under the guidance of Dr. **S.Revathy, M.E., Ph.D.**, is submitted in partial fulfillment of the requirements for the award of Bachelor of Technology degree in Information Technology.

DATE:

PLACE: CHENNAI

SIGNATURE OF THE CANDIDATE

ACKNOWLEDGEMENT

I am pleased to acknowledge our sincere thanks to Board of management of **SATHYABAMA** for their kind encouragement in doing this project and for completing it successfully. I am grateful to them.

I convey our thanks to **Dr. T. SASIKALA M.E., Ph.D.**, Dean, School of Computing and **Dr. R. SUBHASHINI M.E., Ph.D.**, Head of the Department, Department of Information Technology for providing us the necessary support and details at the right time during the progressive reviews.

I would like to express our sincere and deep sense of gratitude to our Project Guide **Dr. S.Revathy, M.E., Ph.D.**, for her valuable guidance, suggestions and constant encouragement paved way for the successful completion of my project work.

I wish to express our thanks to all Teaching and Non-teaching staff members of the Department of **INFORMATION TECHNOLOGY** who were helpful in many ways for the completion of the project.

TRAINING CERTIFICATE



No: JS02SATC002

JS Software Testing Solution Centre

CERTIFICATE OF COMPLETION

This certificate is presented to

T. JACOB RAJA

in recognition of his/her hard work and dedication in completing the
Automation Selenium Testing Course from February 2022 to April 2022.



Director



Trainer

ABSTRACT

Over the last years software development life-cycles have continuously been shortened and new releases are being deployed at a more and more frequent level. In order to ensure the quality of those releases, a strong shift towards automated testing at all testing levels has become noticeable throughout the software development industry. At system testing level, the scope of testing is the developed product as a whole, tested in a test environment that has a very close resemblance to the production system. Because of this system-wide scope and the many potential sources for failures, the implementation of automated tests at this level is challenging. Exhaustive testing is neither feasible nor maintainable, therefore proper designed test cases that cover important functionality are essential. Due to increasing laws and regulations on data protection and data privacy, proper management of test data used in auto-mated testing is as important. This paper discusses how automated system.

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CHAPTER 1

INTRODUCTION

1.1 GENERAL

1.2 OUTLINE OF THE PROJECT

To update ONLINE VIDEO PLATFORM description for more than 500+ people manually it takes days, weeks, papers and human energy to complete it. But by using this project we are able to complete our work in less than an hour. It saves time, money, energy and less paper work. It is also very convenient to check, change the description of the user profile. Many errors are saved in this method.

1.3 ORGANIZATION OF THE REPORT

Chapter 2 deals with Aim, Problem Statement, Literature Review and Scope of the present investigation. Chapter 3 deals with Requirement, Role of Java and Results and Discussion. Chapter 4 deals with Conclusion and Future work.

CHAPTER 2

AIM & SCOPE

2.1 AIM

- To test Online video platform, If the provided user Id and password is correct, it gets directed to the user account-> Home page -> video play -> Like video -> terms & conditions.

The given all terms will be printed in the output.

2.2 PROBLEM STATEMENT

The problem statement, is to test the ONLINE VIDEO PLATFORM and the portal in a very short period of time. To give the description to the valid users and error to the invalid users. To do this process manually it takes a lot of time and many paper works. So we are using this automation testing to reduce time and work.

2.3 LITERATURE REVIEW

Universities have shown a great interest adoption of new technologies. Many research studies that conducted about adoption of new technologies had used Technology Acceptance Model (TAM). Which was developed by Davis et al. in 1989. The web technology (ONLINE VIDEO PLATFORM) which was used by many universities to deliver learning and teaching besides the usual face-to-face classroom.

The research studies of Trayek and Hassan (2013) and Majdalawi et al. (2014) concerning students attitude towards using of online video platform have used the core constructs: perceived ease of use, perceived usefulness of TAM. Some research studies considered demographic factors of acceptance of online video platform. The study of Claretal. (2014) has said that demographic factors such as age, race, gender, and education levels contribute on student acceptance of online video platform. In this study shows the different relationships among variables

such as Perceived Ease of Use has a significant positive influence on perceived usefulness of video platform, Perceived usefulness and Perceived Ease of Use has a significant positive influence on attitude toward using video platform,

Perceived Usefulness and Attitude toward using has a significant positive influence on behavioural intentions to use, The higher the educational level, the more likely new online video platform systems will be accepted and the higher a person's age, the more likely he/she is to perceive a new online video platform more negatively.

2.4 SCOPE

It is more efficient and convenient for the college. It reduces the manpower needed to perform the entire administration task by reducing the paper work needed, all the work is done by the computer there will be no chance of error.

In a nutshell, it can be summarized that the future scope of the project circles around maintaining information regarding.

- * We can add printer in future
- * We can give more advance software for online video platform including more facilities
- * We will host platform on online servers to make it accessible worldwide
- * Implement the backup mechanism for taking backup of codebase and database on regular basis on different servers.

CHAPTER 3

SYSTEM IMPLEMENTATION

3.1 REQUIREMENTS

I. HARDWARE REQUIREMENTS

- A 64-bit operating system like Windows 7 or later.
- Microsoft Internet Explorer 9.0 or later.
- Intel Core i5 or Intel Core i7 (the 3rd generation).

II. SOFTWARE REQUIREMENTS

- JAVA
- Eclipse
- TestNG
- JIRA

3.2 ROLE OF JAVA

- **Java**

Java is a class-based. Object-oriented programming language that is designed to have as few implementation dependencies as possible, It is a general-purpose programming language intended to let application developers write once, run anywhere (WORA), meaning that complied java code can run on all platforms that supports Java without the need for recompilation.

- **Eclipse**

Eclipse is an integrated development environment (IDE) used in computer program. It contains a base workspace and an extensible plug-in system for customizing the environment. Eclipse is written mostly in Java and its primary use is for developing Java applications, but it may also be used to develop applications in other programming language.

- **TestNG**

TestNG is an automation testing framework in which NG stands for “Next Generation”. TestNG is inspired from JUnit which uses the annotations (@). TestNG overcomes the disadvantages of JUnit and is designed to make end to end testing easy.

There is a future scope of this facility that many more features such as online lectures video

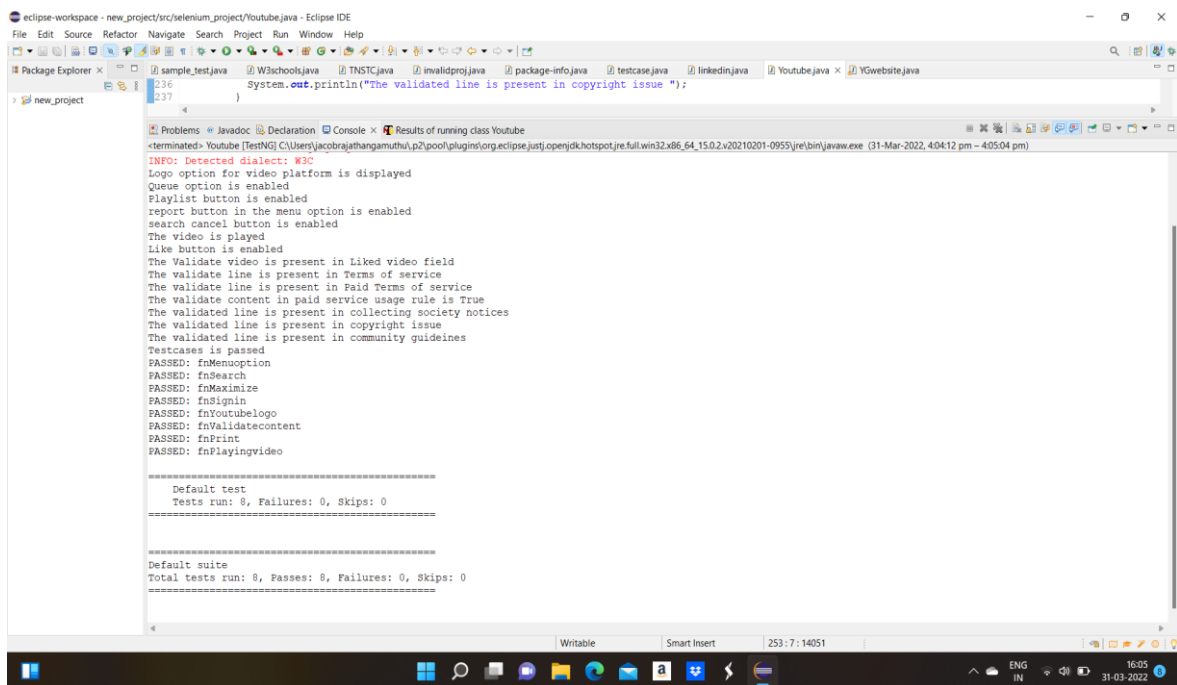
tutorials can be added by teachers as well as online assignments submission facility , a feature Of group chat where students can discuss various issues of engineering can be added to this project thus making it more interactive more user friendly and project which fulfills each users need in the best way possible.

- **JIRA**

JIRA is a software application used for issue tracking and project management tool used for issues and bugs tracking system. It is widely used as an issue-tracking tool for all types of testing.

3.2 RESULTS AND DISCUSSION

Using TestNG, successfully launched the browser and the Online video platform, logged into terms & conditions, the valid code executed successfully. All testcases are passed.



```

eclipse-workspace - new_project/src/selenium_project/Youtube.java - Eclipse IDE
File Edit Source Refactor Navigate Search Project Run Window Help
Package Explorer x 236 237
new_project
    sample_test.java
    W3schools.java
    TNSTC.java
    invalidproj.java
    package-info.java
    testcase.java
    linkedin.java
    Youtube.java
    YGwebsite.java

    236
    237
    }
    System.out.println("The validated line is present in copyright issue ");
}

Problems x Javadoc Declaration Console x Results of running class Youtube
<terminated> Youtube [TestNG] C:\Users\jacobrajathangamuthu\p2\pooth\plugins\org.eclipse.just\openjdk.hotspot.jre.full.win32.x86_64_15.0.2.v20210201-0955\jre\bin\java.exe (31-Mar-2022, 4:04:12 pm - 4:05:04 pm)
INFO: Detected dialect: W3C
Logo option for video platform is displayed
Queue option is enabled
Playlist button is enabled
report button in the menu option is enabled
search cancel button is enabled
The video is played
Like button is enabled
The Validate video is present in Liked video field
The validate line is present in Terms of service
The validate line is present in Paid Terms of service
The validate content in paid service usage rule is True
The validated line is present in collecting society notices
The validated line is present in copyright issue
The validated line is present in community guidelines
Testcases is passed
PASSED: fnMenuoption
PASSED: fnSearch
PASSED: fnMaximize
PASSED: fnSignin
PASSED: fnYoutubelogo
PASSED: fnValidatecontent
PASSED: fnPrint
PASSED: fnPlayingvideo

=====
Default test
Tests run: 8, Failures: 0, Skips: 0
=====

Default suite
Total tests run: 8, Passes: 8, Failures: 0, Skips: 0
=====
  
```

Fig no:1.1

Test case all successfully executed and no bugs is found.

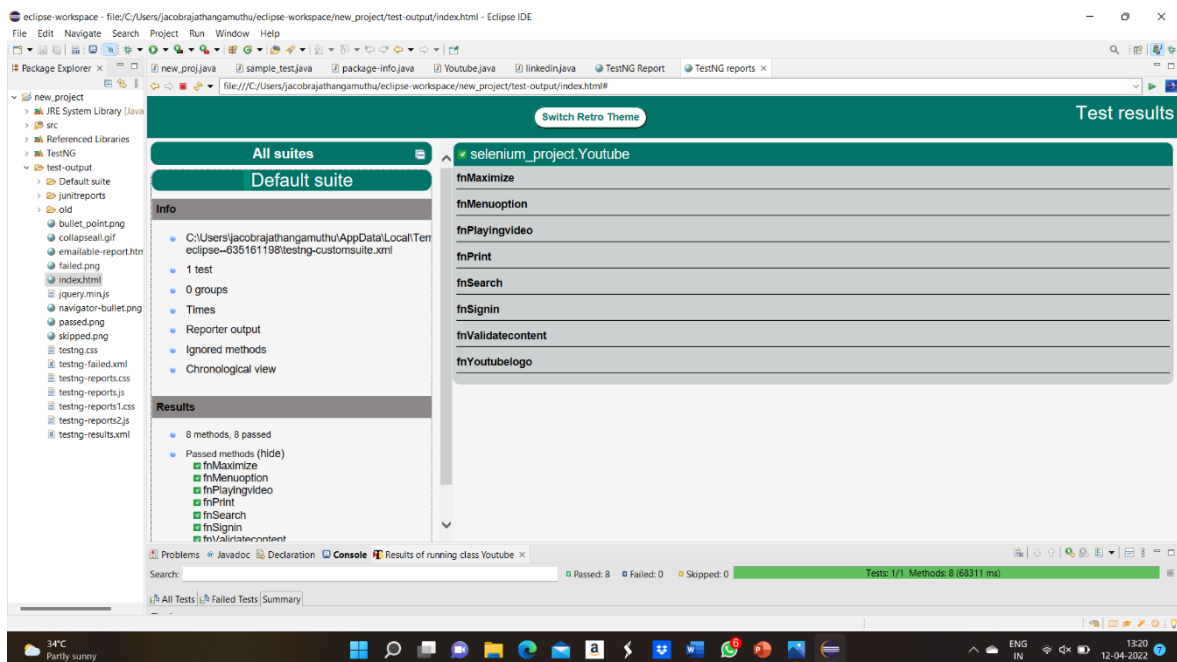


Fig no:1.2
Totally 8 methods have been passed

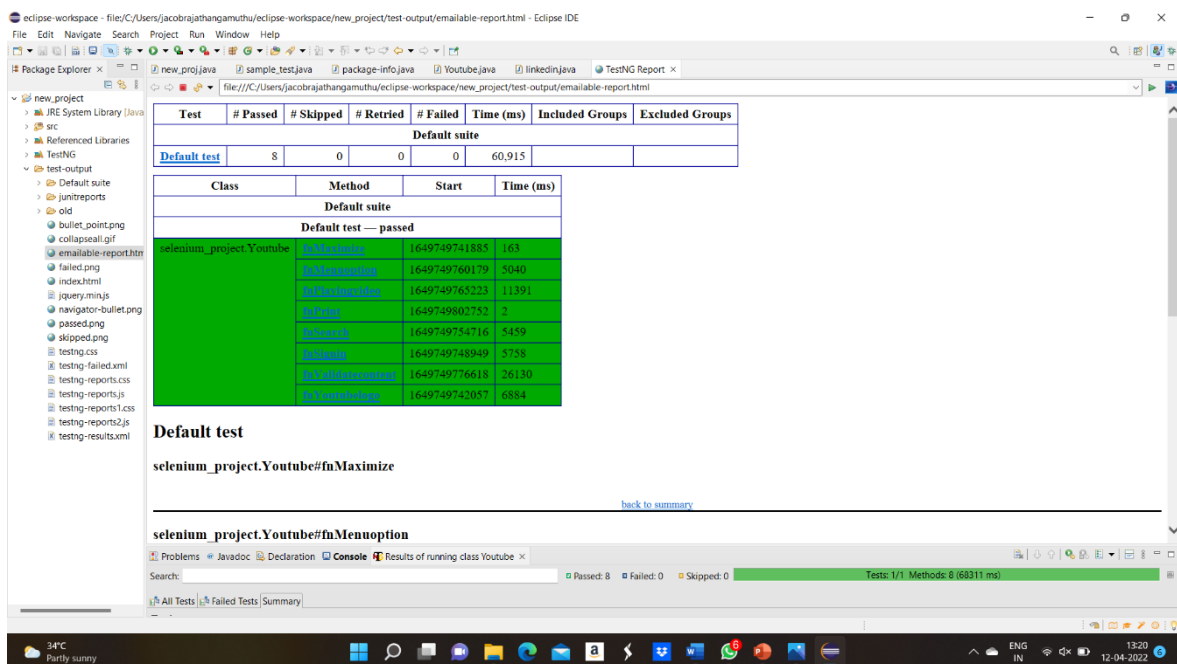


Fig no:1.3

The Automation process took 60,915 (ms) to run the test case

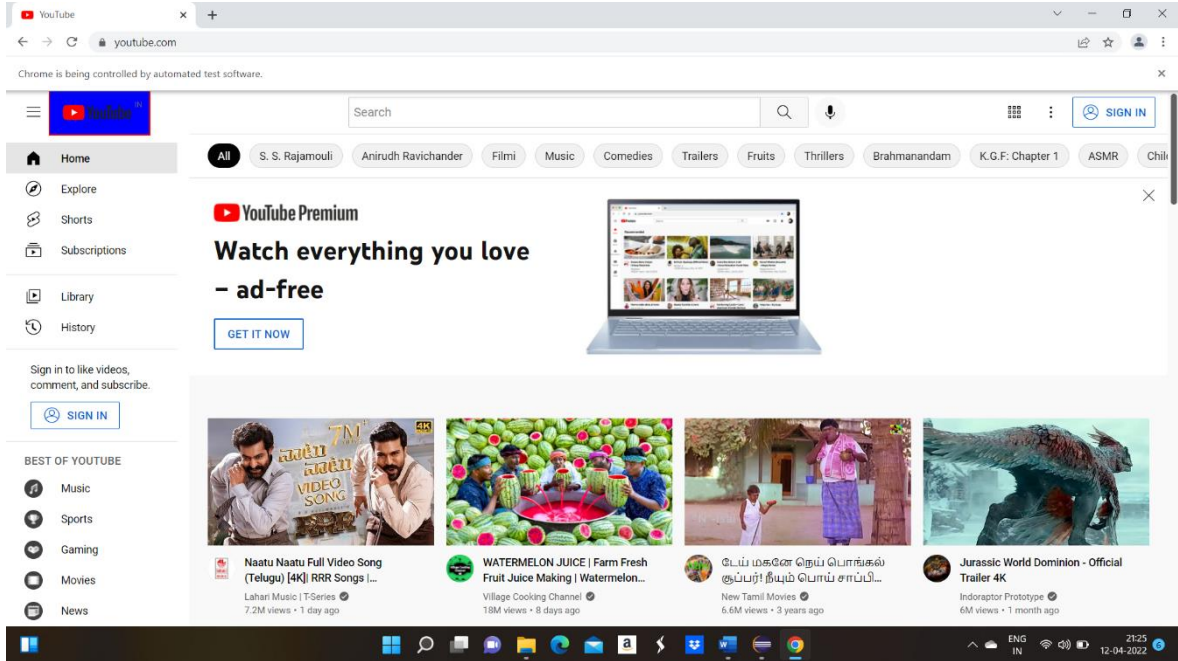


Fig no:1.4
Validating the Logo of the application.

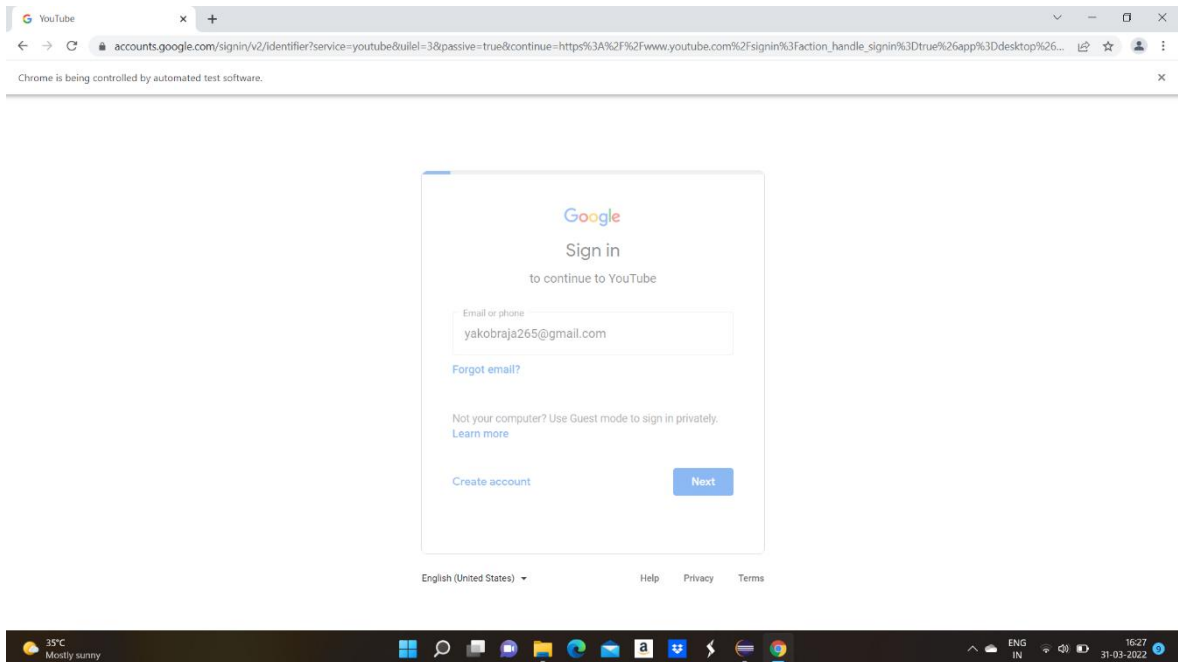


Fig no:1.5.1

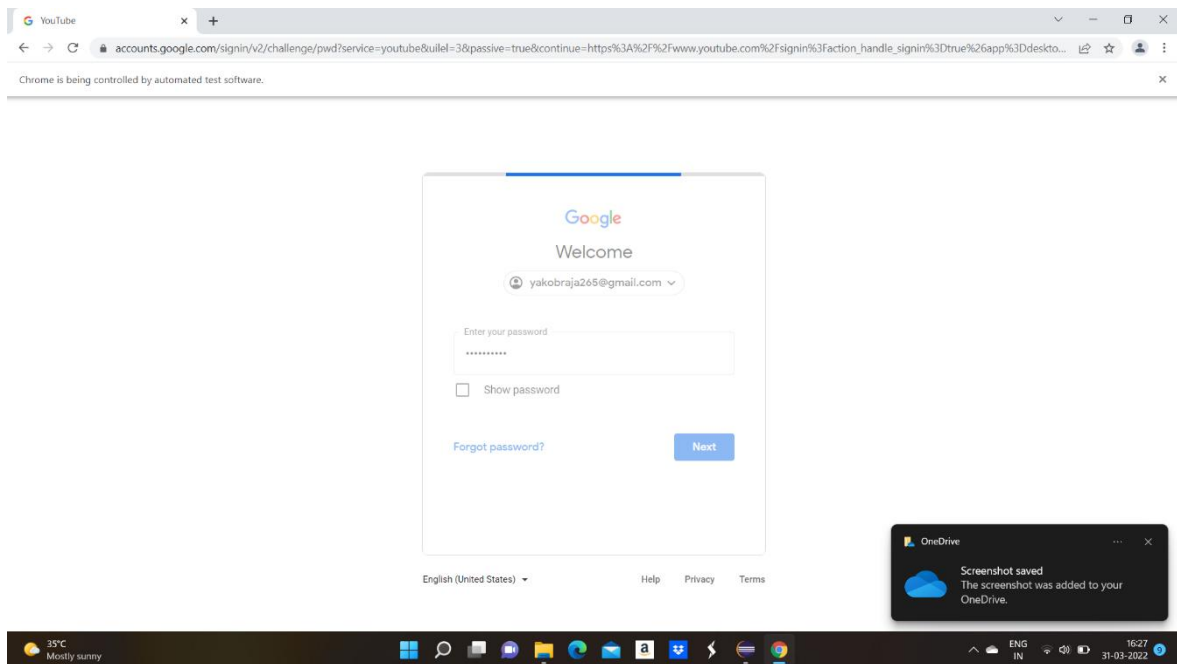


Fig no:1.5.2
verify the user can able to enter Email-id and password

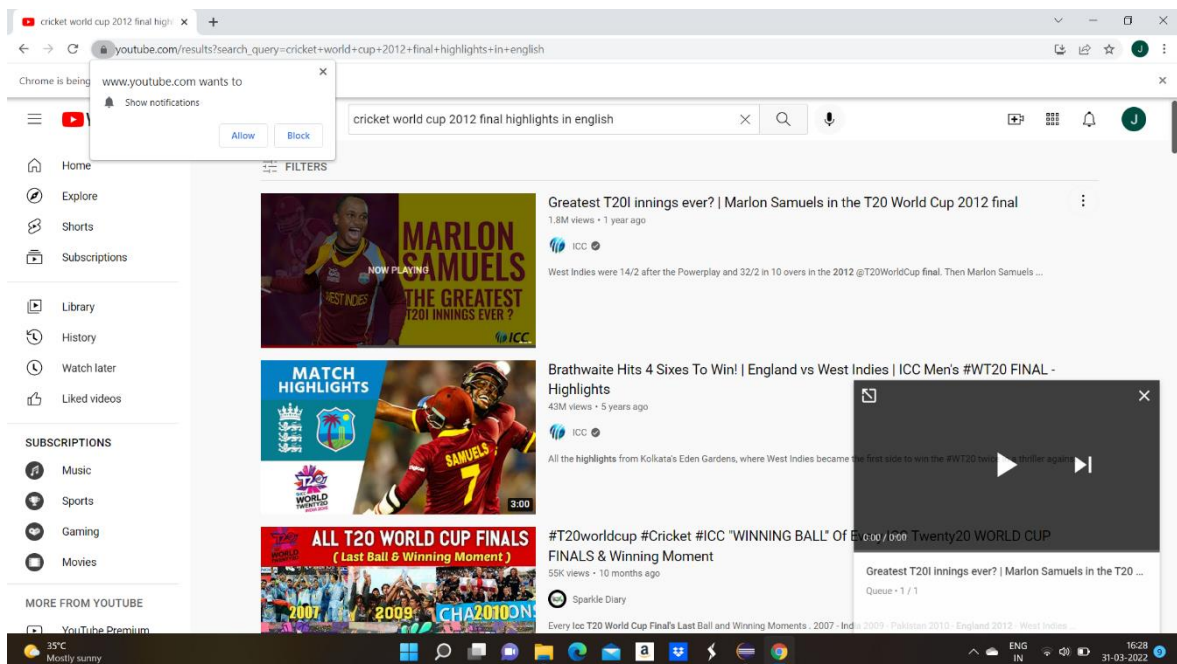


Fig no:1.6

Verifying the search box and menu options is enabled.

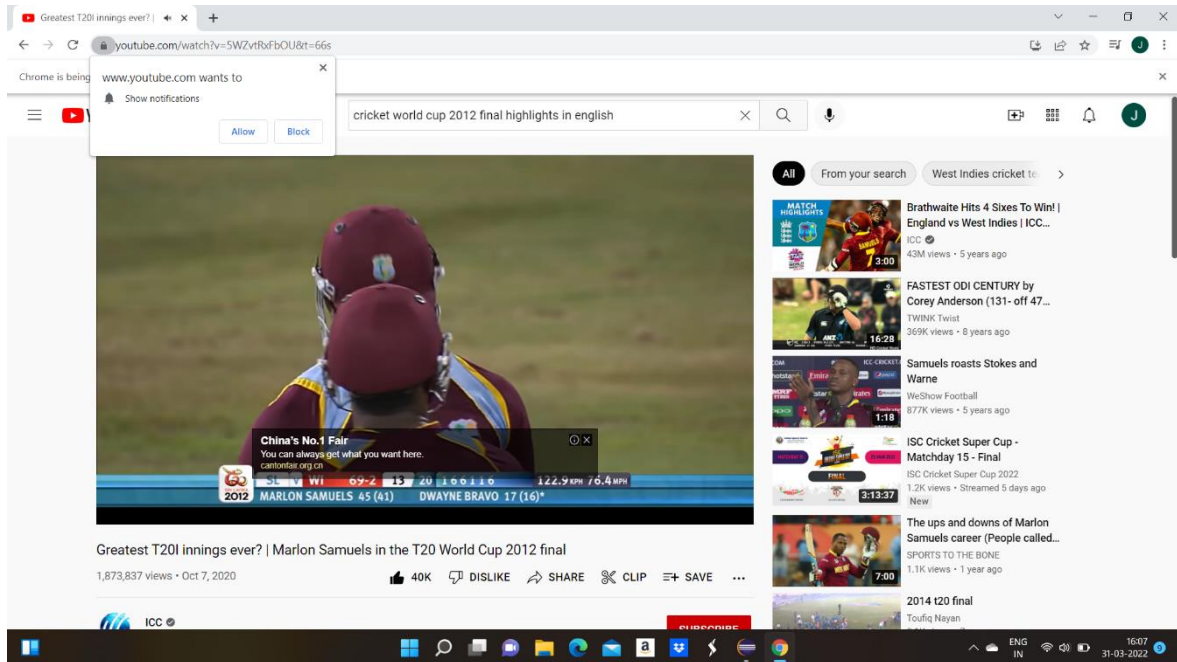


Fig no:1.7

Verifying the like button of the video is enabled.

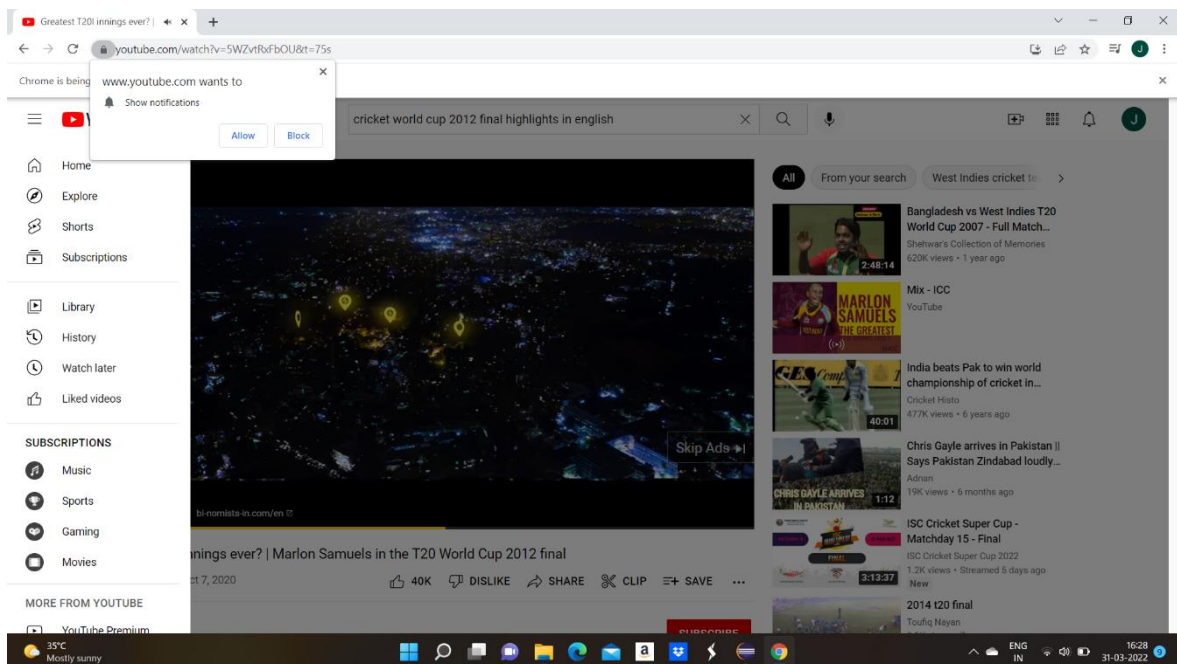


Fig no:1.8

Verify the hamburger icon and liked video option is clickable.

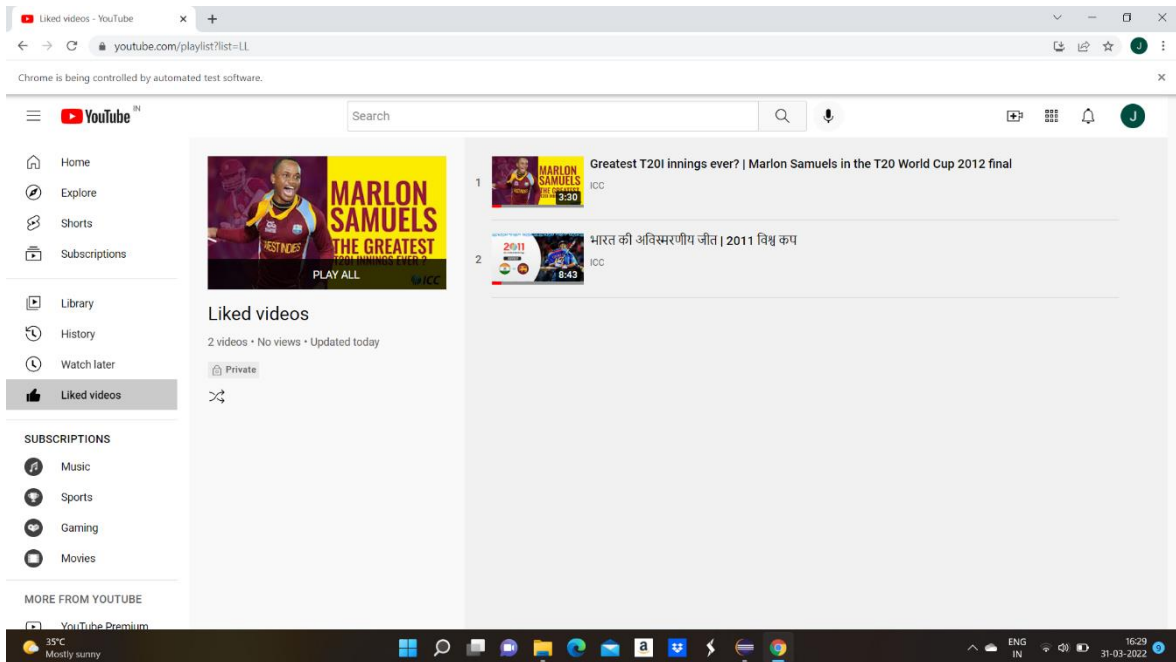


Fig no:1.9

Verify the liked video is present in liked list and Terms button is enabled.

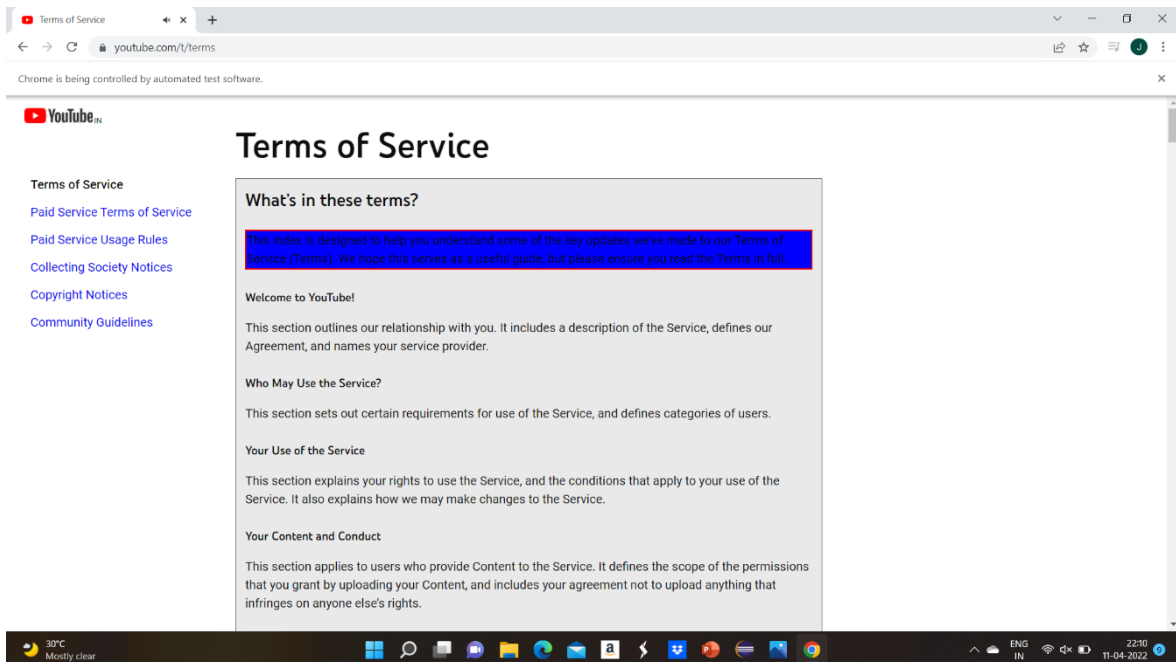


Fig no:1.10.1

Validating the contents in Terms of service

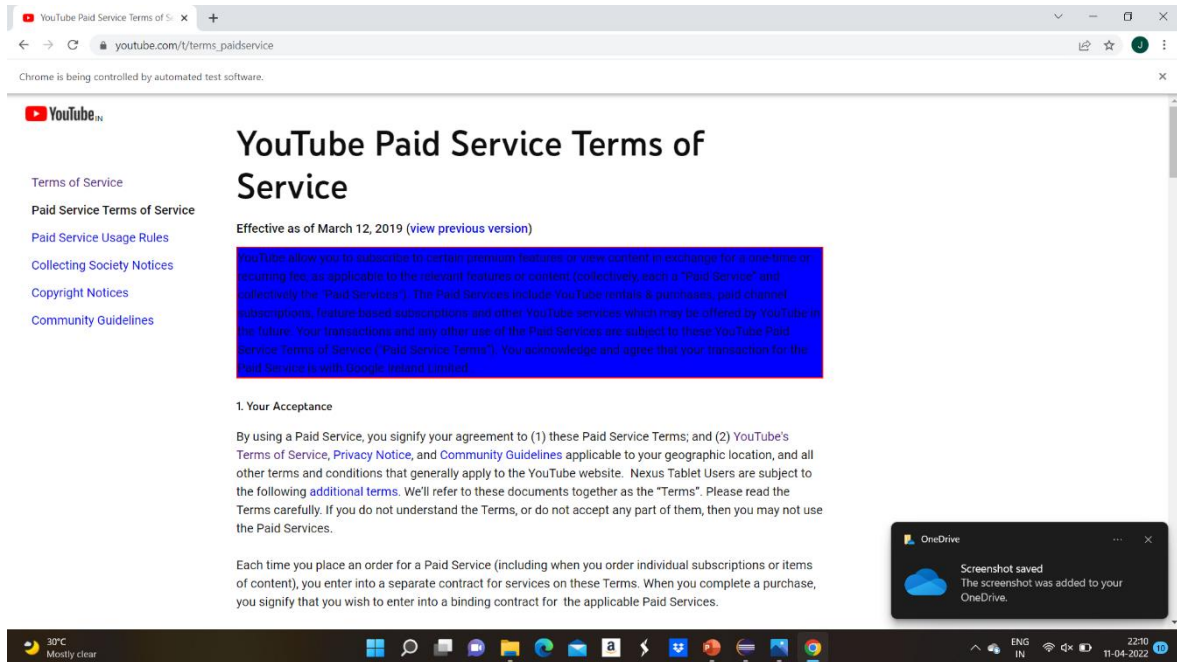


Fig no:1.10.2

Validate the content in paid service terms of service

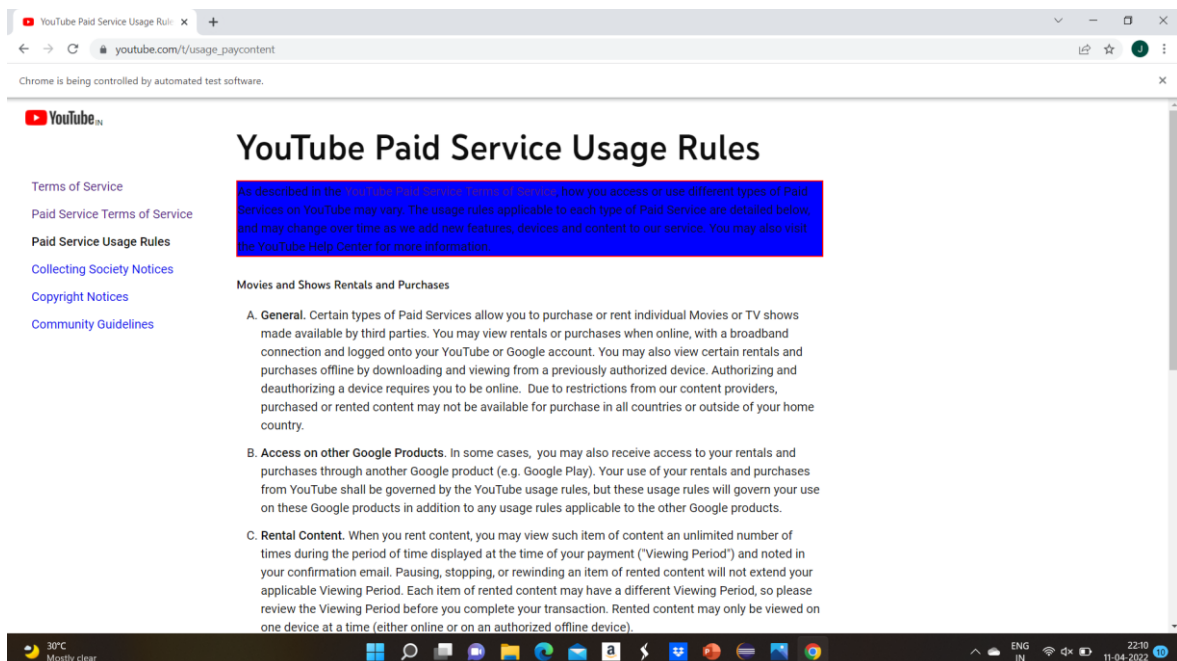


Fig no:1.10.3

Validate the content in paid service usage rules

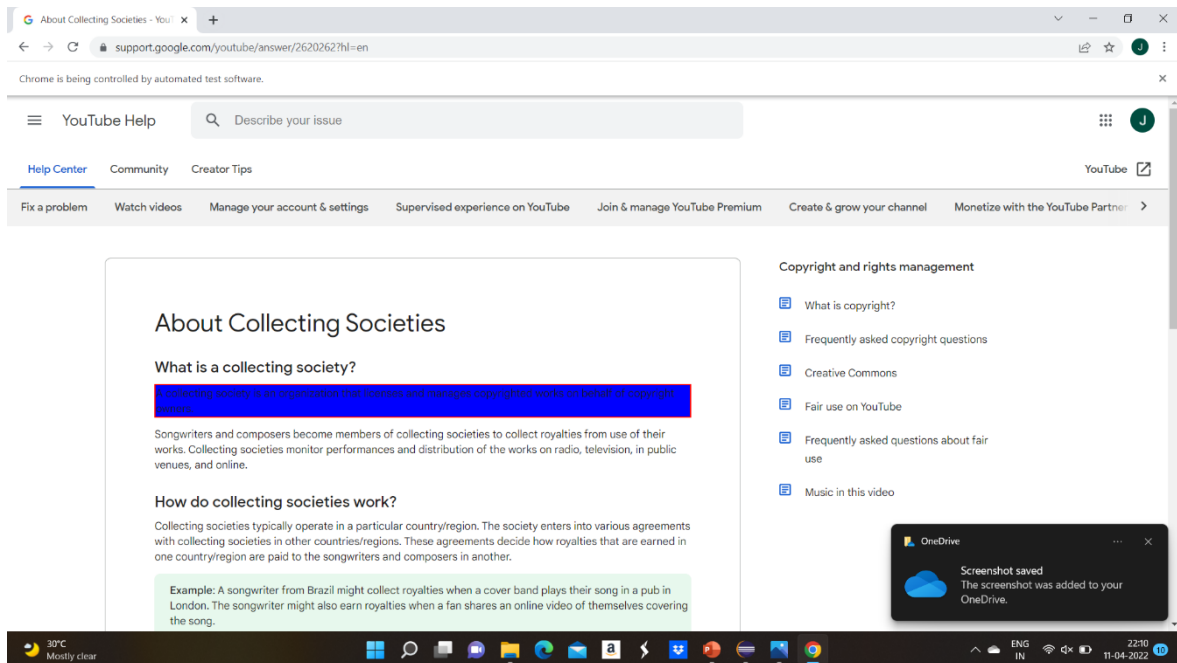


Fig no:1.10.4
Validate the content in collecting society notices

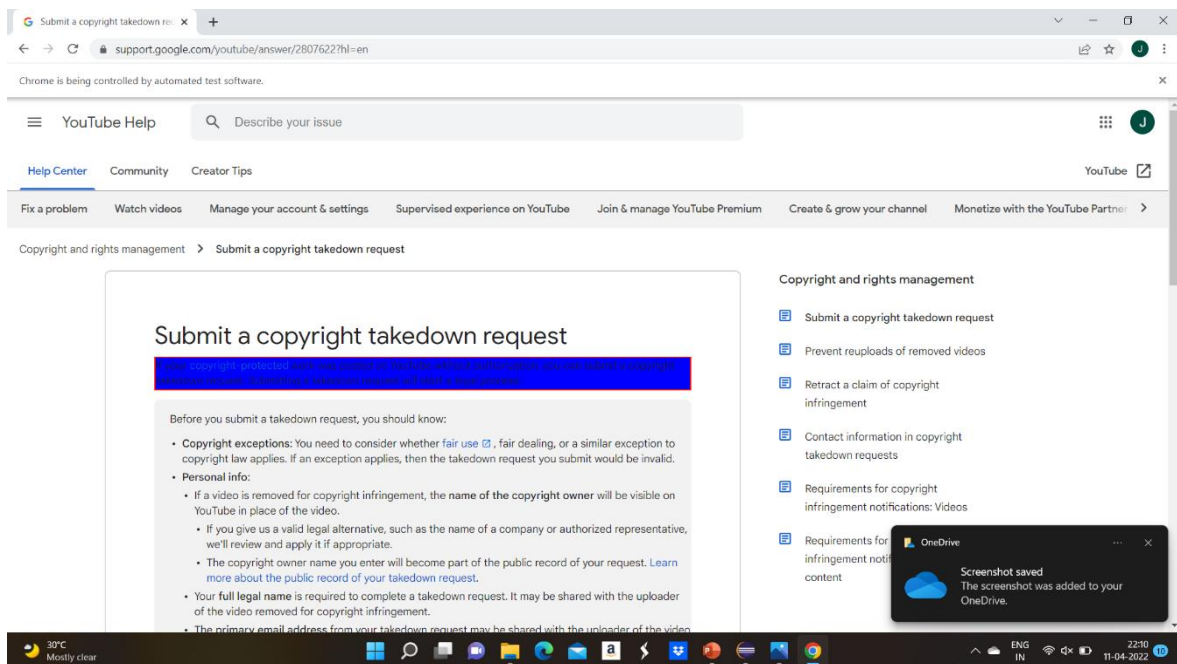


Fig no:1.10.5
Validate the content in copyright notices.

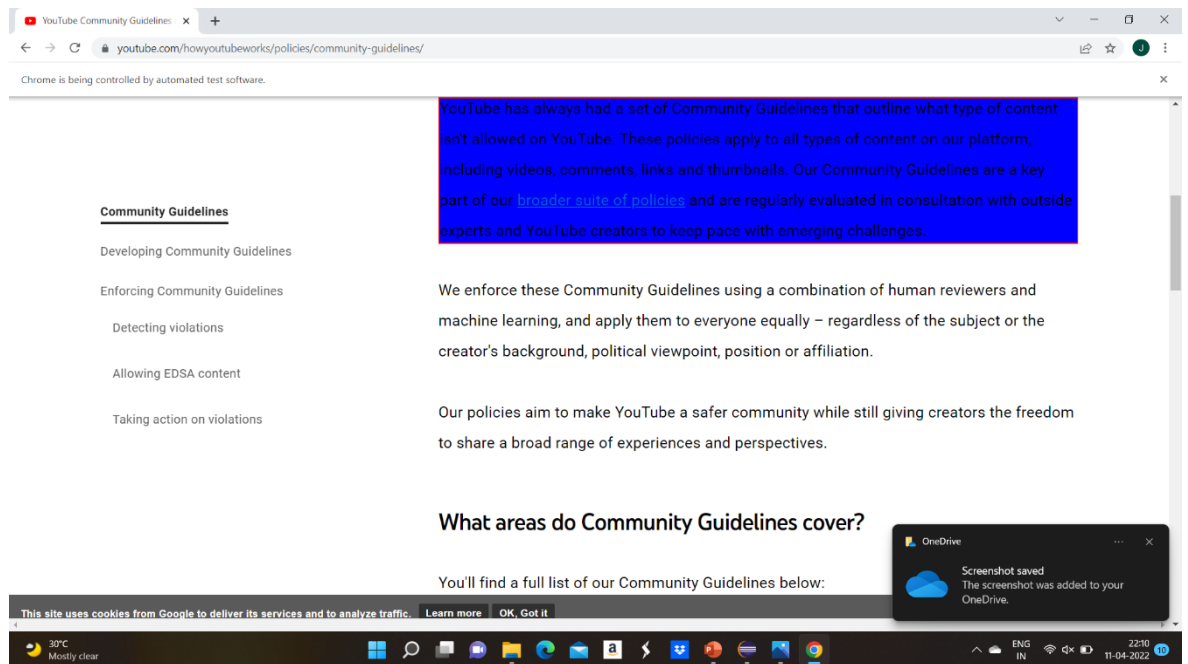


Fig no:1.10.6
Validate the content in community guidelines.

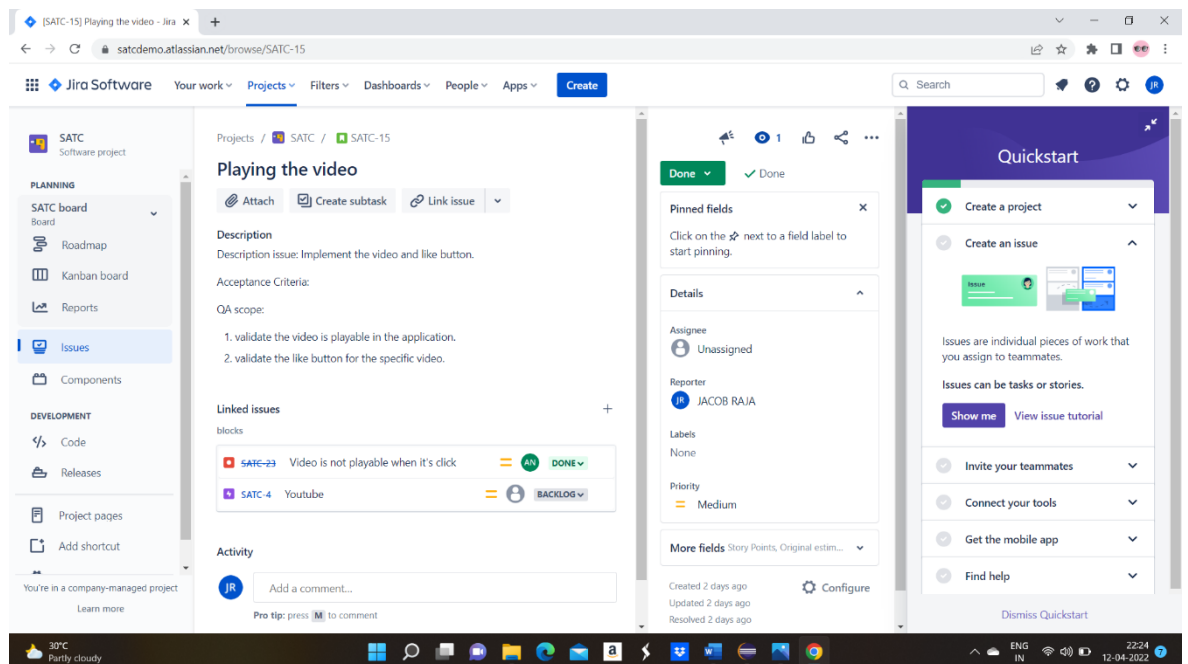


Fig no:1.11.1
Creating the story in Jira for playing the video

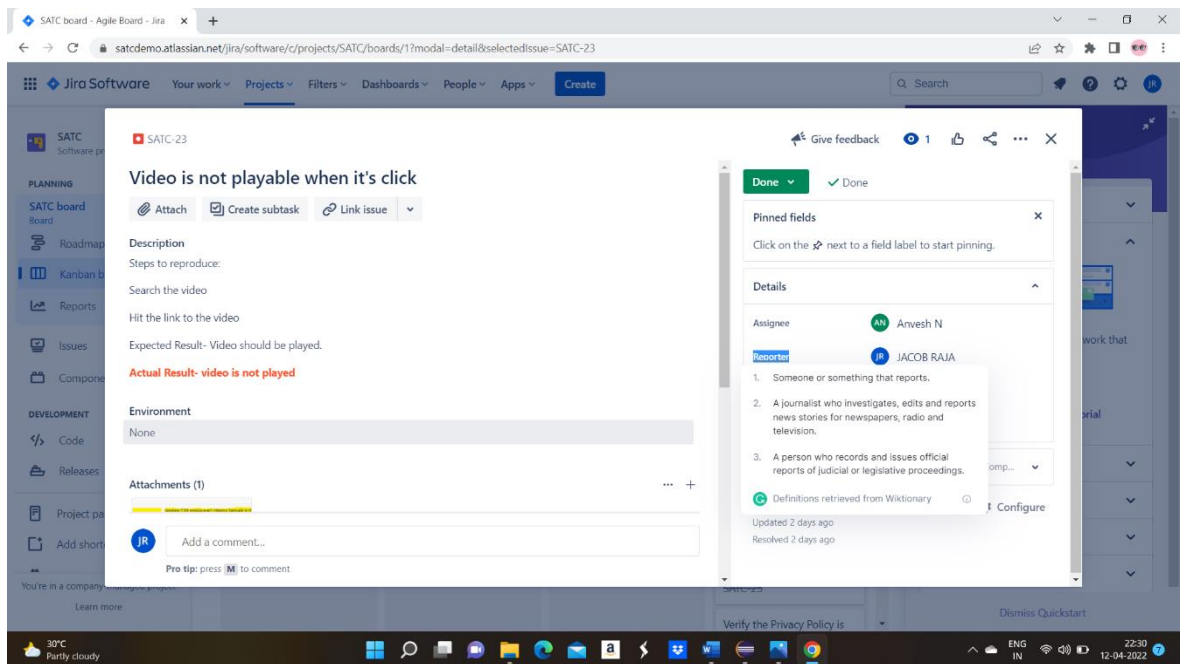


Fig no:1.11.2
Identify the defect and report it to the bug

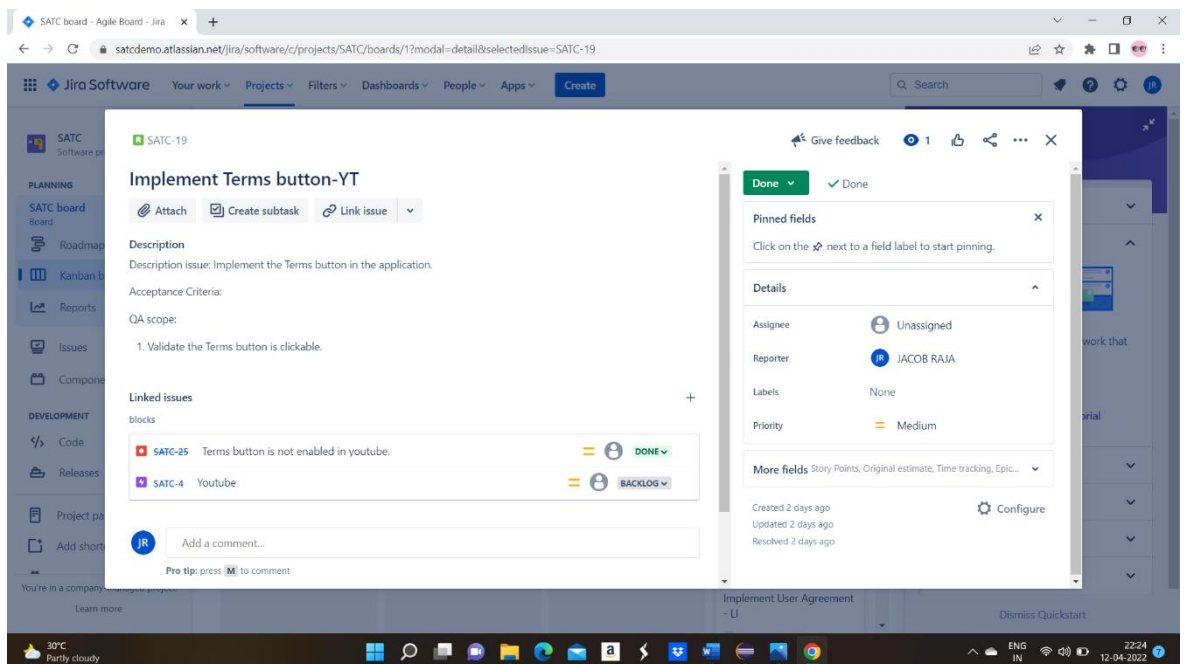


Fig no:1.12.1
Implement the terms button

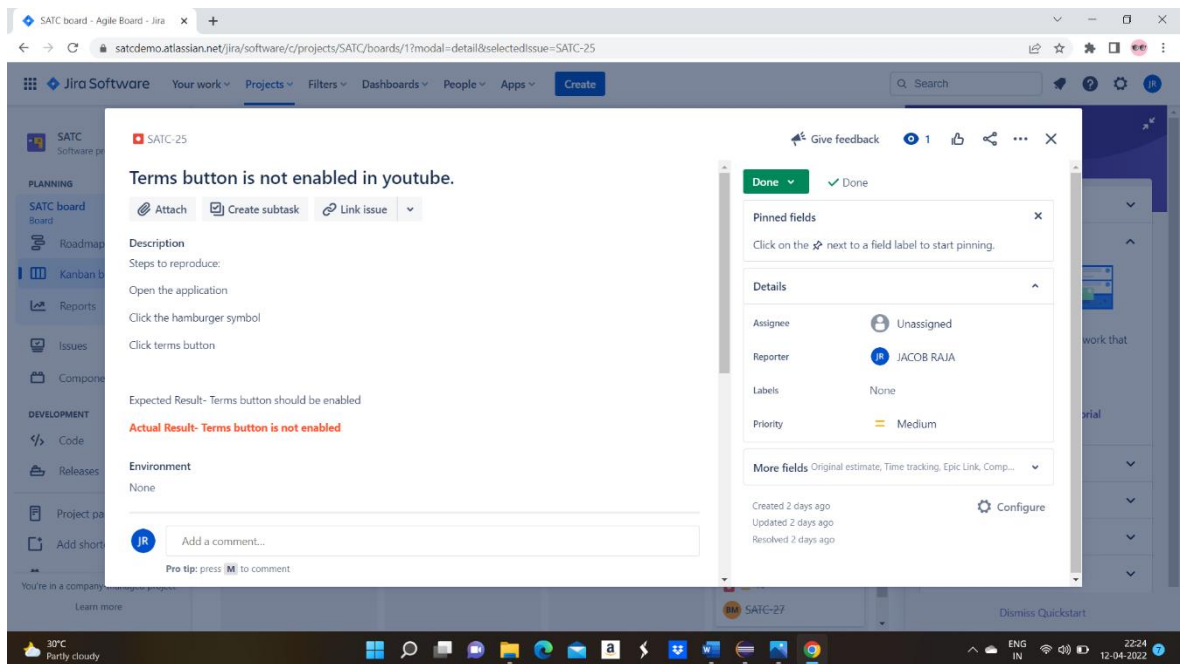


Fig no:1.12.2
Report the bug-Terms button is not clickable.

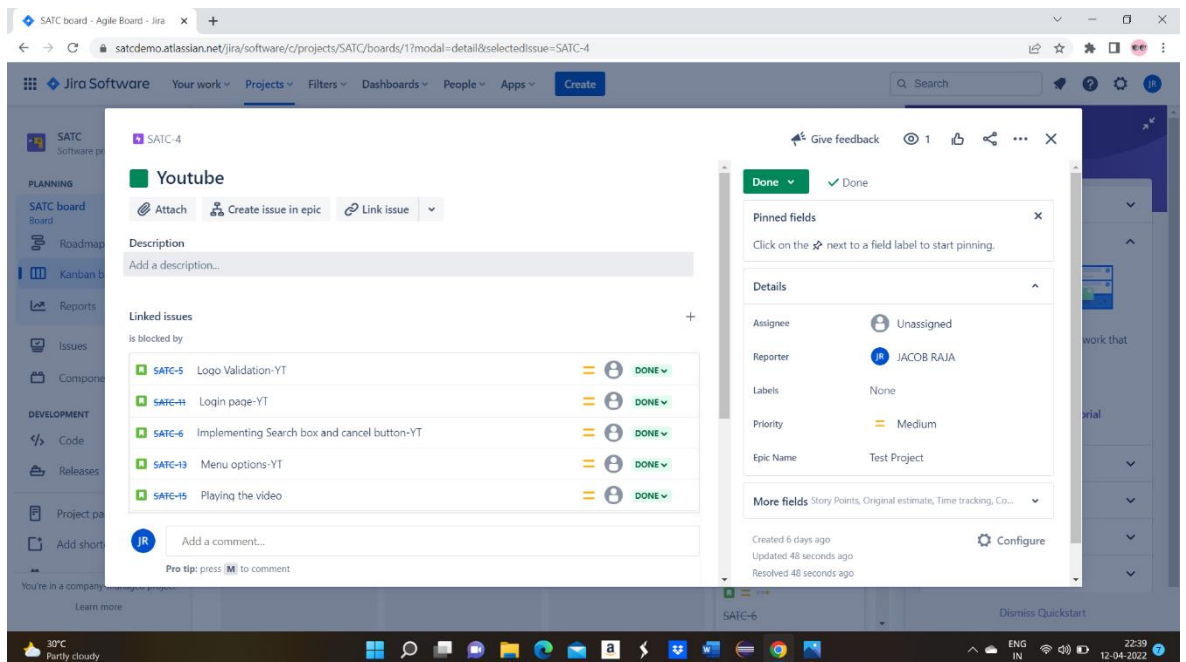


Fig no:1.13.1

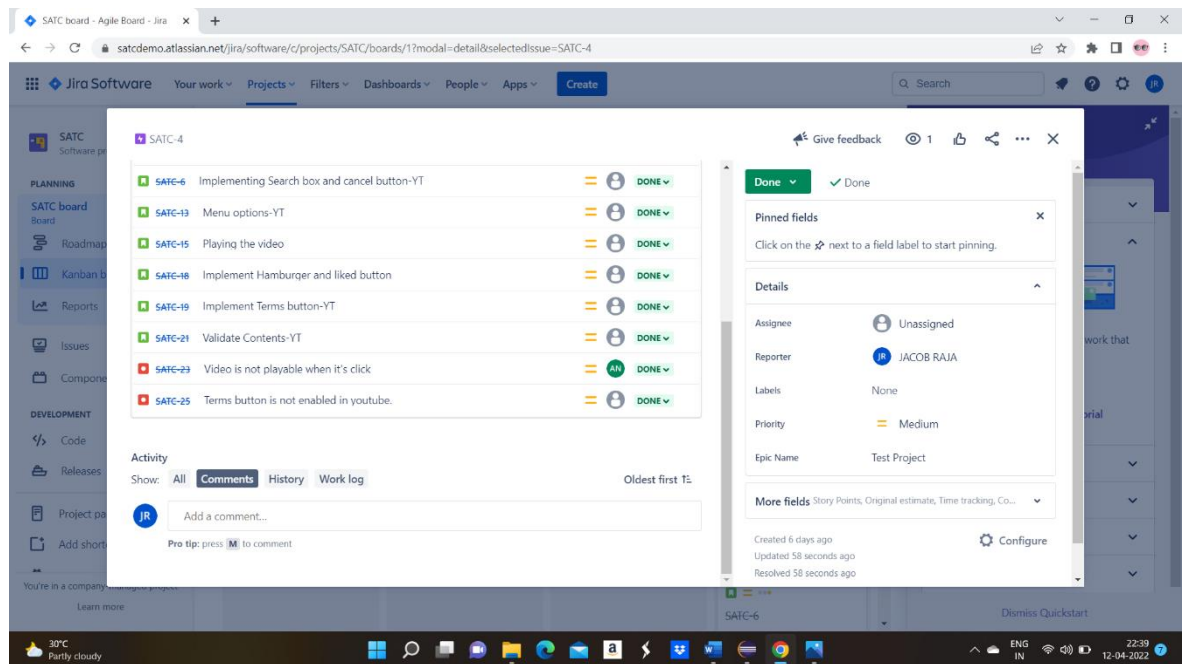


Fig no:1.13.2
Import all the story and bug into single Epic

CHAPTER 4

CONCLUSION AND FUTURE WORK

4.1 CONCLUSION

Selenium is a cost-effective and flexible tool developers can use in the automation testing of their web applications. The most intriguing feature of

this software is the ability to test applications across various web browsers.

This ensures that websites do not crash or breakdown in certain browsers. The Selenium software is ideal for companies developing applications that support heavy traffic, especially social platforms and e-commerce websites.

I say that this project has given me a great experience. Thanks to this project, I learned a lot of technical skill as well as I was personally benefited.

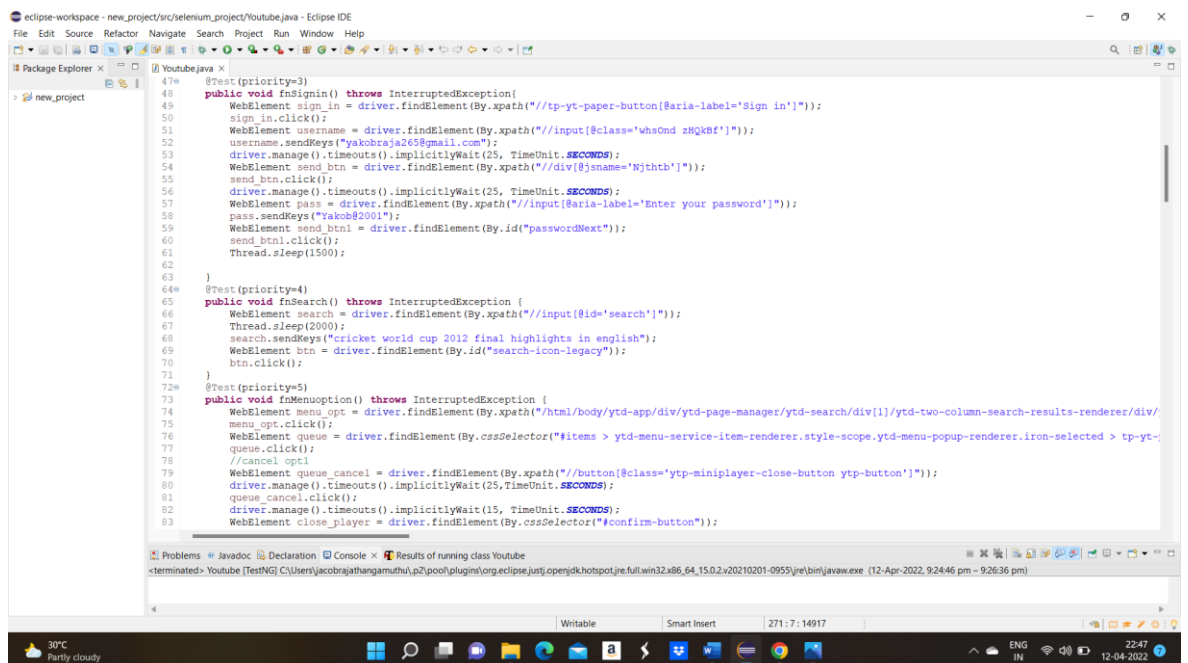
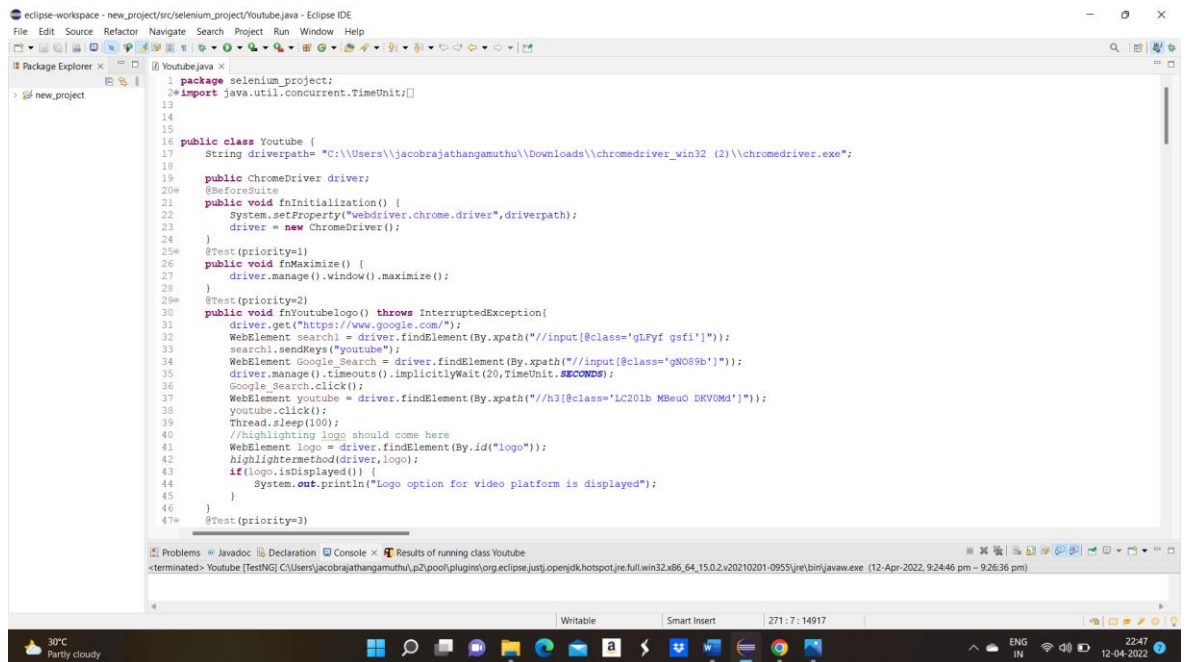
4.2 FUTURE WORK

There is a future scope of this facility that many more features such as online lectures video tutorials can be added by teachers as well as online assignments submission facility, a feature of group chat where students can discuss various issues of engineering can be added to this project thus making it more interactive more user friendly and project which fulfills each users need in the best way possible.

This project can be further implemented by testing the Online video platform by directing it into different jobs, or notification. The code can be developed in eclipse application and by the help of JavaScript, the code is executed in TestNG tool.

APPENDICES

A. SCREENSHOTS



```
eclipse-workspace - new_project/src/selenium_project/YouTube.java - Eclipse IDE
File Edit Source Refactor Navigate Search Project Run Window Help

Package Explorer
new_project

YouTube.java
83 WebElement close_player = driver.findElement(By.cssSelector("#confirm-button"));
84 close_player.click();
85 if(close_player.isEnabled()) {
86     System.out.println("Queue option is enabled");
87 }
88 //add to playlist
89 Thread.sleep(1000);
90 WebElement menuopt_2 = driver.findElement(By.xpath("/html/body/ytd-app/div/ytd-page-manager/ytd-search/div[1]/ytd-two-column-search-results-renderer/div
91 menuopt_2.click();
92 WebElement play_list = driver.findElement(By.xpath("/html/body/ytd-app/ytd-popup-container/tp-yt-iron-dropdown/div/ytd-menu-popup-renderer/tp-yt-paper-l
93 driver.manage().timeouts().implicitlyWait(25, TimeUnit.SECONDS);
94 play_list.click();
95 WebElement checkbox = driver.findElement(By.id("checkboxContainer"));
96 checkbox.click();
97 WebElement checkbox_cancel = driver.findElement(By.id("close-button"));
98 checkbox_cancel.click();
99 if(checkbox_cancel.isEnabled()) {
100     System.out.println("Playlist button is enabled");
101 }
102 //report
103 WebElement menuopt_3 = driver.findElement(By.xpath("/html/body/ytd-app/div/ytd-page-manager/ytd-search/div[1]/ytd-two-column-search-results-renderer/div
104 menuopt_3.click();
105 WebElement report = driver.findElement(By.xpath("//div[@id='items']/ytd-menu-service-item-renderer[4]/tp-yt-paper-item/yt-formatted-string"));
106 report.click();
107 driver.manage().timeouts().implicitlyWait(20, TimeUnit.SECONDS);
108 WebElement report_cancel = driver.findElement(By.xpath("/html/body/ytd-app/ytd-popup-container/tp-yt-paper-dialog/yt-report-form-modal-renderer/div/yt-b
109 report_cancel.click();
110 try {
111     if(report.isEnabled())
112         System.out.println("report button in the menu option is enabled");
113 }
114 catch (Exception e) {
115     System.out.println("report button in the menu option is not enabled");
116 }
117 //Search cancel
118 WebElement search_cancel = driver.findElement(By.cssSelector("div#search-clear-button"));
119 search_cancel.click();
120 try {
121     if(search_cancel.isEnabled())
122         System.out.println("search cancel button is enabled");
123 }
124 catch (Exception e) {
125     System.out.println("cancel button is can't acessable");
126 }
127 }
128 }
129 }
130 @Test(priority=6)
131 public void fnPlayingVideo() throws InterruptedException {
132     WebElement search_1 = driver.findElement(By.xpath("//input[@id='search']"));
133     search_1.sendKeys("cricket world cup 2012 final highlights in english");
134     WebElement btn_1 = driver.findElement(By.id("search-icon-legacy"));
135     btn_1.click();
136     WebElement video = driver.findElement(By.partialLinkText("Greatest T20I innings ever? | Marlon Samuels in the T20 World Cup 2012 final"));
137     String video1 = video.getText();
138     driver.manage().timeouts().implicitlyWait(20, TimeUnit.SECONDS);
139     video.click();
140     if(video.isEnabled()) {
141         System.out.println("The video is played");
142     }
143     Thread.sleep(5000);
144     //like the video
145     WebElement like_btn = driver.findElement(By.xpath("/html/body/ytd-app/div[1]/ytd-page-manager/ytd-watch-flexy/div[5]/div[1]/div/div[6]/div[2]/ytd-video
146     like_btn.click();
147     try {
148         if(like_btn.isEnabled()) {
149             System.out.println("Like button is enabled");
150         }
151     }
152     catch (Exception e) {
153         System.out.println("Like button is can't acessable");
154     }
155 }
```

```
eclipse-workspace - new_project/src/selenium_project/YouTube.java - Eclipse IDE
File Edit Source Refactor Navigate Search Project Run Window Help

Package Explorer
new_project

YouTube.java
119 //search cancel
120 WebElement search_cancel = driver.findElement(By.cssSelector("div#search-clear-button"));
121 search_cancel.click();
122 try {
123     if(search_cancel.isEnabled())
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136     WebElement video = driver.findElement(By.partialLinkText("Greatest T20I innings ever? | Marlon Samuels in the T20 World Cup 2012 final"));
137     String video1 = video.getText();
138     driver.manage().timeouts().implicitlyWait(20, TimeUnit.SECONDS);
139     video.click();
140     if(video.isEnabled()) {
141         System.out.println("The video is played");
142     }
143     Thread.sleep(5000);
144     //like the video
145     WebElement like_btn = driver.findElement(By.xpath("/html/body/ytd-app/div[1]/ytd-page-manager/ytd-watch-flexy/div[5]/div[1]/div/div[6]/div[2]/ytd-video
146     like_btn.click();
147     try {
148         if(like_btn.isEnabled()) {
149             System.out.println("Like button is enabled");
150         }
151     }
152     catch (Exception e) {
153         System.out.println("Like button is can't acessable");
154     }
155 }
```

```
eclipse-workspace - new_project/src/selenium_project/YouTube.java - Eclipse IDE
File Edit Source Refactor Navigate Search Project Run Window Help

Package Explorer
new_project

YouTube.java
154      System.out.println("Like button is can't acessable");
155  }
156  }
157  //Validating the liked video
158  WebElement guidebox = driver.findElement(By.xpath("//button[@aria-pressed='false']"));
159  WebDriverWait wait=new WebDriverWait(driver, 100);
160  wait.until(ExpectedConditions.elementToBeClickable(guidebox)).click();
161  Thread.sleep(2000);
162  WebElement Like_box = driver.findElement(By.xpath("//yt-formatted-string[contains(text(),'Liked videos')]"));
163  Like_box.click();
164  Thread.sleep(1000);
165  //WebElement Liked_video = driver.findElement(By.partialLinkText("Greatest T20I innings ever? | Marion Samuels in the T20 World Cup 2012 final"));
166  //String Liked_video2 = Liked_video.getText();
167  try {
168      WebElement Liked_video = driver.findElement(By.partialLinkText("Greatest T20I innings ever? | Marion Samuels in the T20 World Cup 2012 final"));
169      String Liked_video2 = Liked_video.getText();
170      if(Liked_video2.equals(video1)) {
171          System.out.println("The Validate video is present in Liked video field");
172      }
173  }
174  catch (Exception e) {
175      System.out.println("Validated video is not present in the liked list");
176  }
177  }
178  }
179  @Test(priority=7)
180  public void fnValidatecontent() throws InterruptedException {
181      driver.manage().timeouts().implicitlyWait(25,TimeUnit.SECONDS);
182      JavascriptExecutor js = (JavascriptExecutor) driver;
183      //js.executeScript("window.scrollTo(0,350)", "");
184      WebElement Terms = driver.findElement(By.xpath("/html/body/yt-d-app/div/tp-yt-app-drawer/div[2]/div/div[2]/div[2]/yt-d-guide-renderer/div[2]/div[2]/a[1]"));
185      js.executeScript("arguments[0].scrollIntoView()", Terms);
186      Terms.click();
187      WebElement terms_of_service = driver.findElement(By.xpath("//*[@id='main-content']/div/div/p[1]"));
188      highlighttermethd(driver,terms_of_service);
189      Thread.sleep(3000);
190      //String txt = terms_of_service.getText();
191      //if(txt.contains("designed to help you understand")) {
192      //    System.out.println("The Validate line is present in Terms of service");
193      //}
194      //else {
195      //    System.out.println("The validate line is wrong");
196      //}
197      driver.manage().timeouts().implicitlyWait(10,TimeUnit.SECONDS);
198      //paid terms of service
199      WebElement paid_TOS = driver.findElement(By.xpath("//a[normalize-space()='Paid Service Terms of Service']"));
200      highlighttermethd(driver,paid_TOS);
201      paid_TOS.click();
202      //paid service usage rules
203      WebElement paid_text = driver.findElement(By.xpath("//*[@id='main-content']/div/p[1]"));
204      highlighttermethd(driver,paid_text);
205      Thread.sleep(3000);
206      String txt1 = paid_text.getText();
207      if(txt1.contains("YouTube allow you to subscribe to certain premium features or view content in exchange for a one-time or recurring fee, as applicable"))
208          System.out.println("The validate line is present in Paid Terms of service");
209      //paid service usage rules
210      WebElement padi_SUR = driver.findElement(By.xpath("//*[@id='main-sidebar']/ul/li[3]/a"));
211      highlighttermethd(driver,padi_SUR);
212      padi_SUR.click();
213      WebElement service_usage_rule = driver.findElement(By.xpath("//*[@id='main-content']/div/p[1]"));
214      highlighttermethd(driver,service_usage_rule);
215      Thread.sleep(3000);
216      String SUR_txt = service_usage_rule.getText();
217      if(SUR_txt.contains("As Described in the")) {
218          System.out.println("The validate content in paid service usage rule is True");
219      }
220      //else {
221      //    System.out.println("The validated line is not present in paid service usage rule");
222      //}
223  }
224  //collection society notices
225  }
```

```
eclipse-workspace - new_project/src/selenium_project/YouTube.java - Eclipse IDE
File Edit Source Refactor Navigate Search Project Run Window Help

Package Explorer
new_project

YouTube.java
189      Thread.sleep(3000);
190      String txt = terms_of_service.getText();
191      if(txt.contains("designed to help you understand")) {
192          System.out.println("The Validate line is present in Terms of service");
193      }
194      else {
195          System.out.println("The validate line is wrong");
196      }
197      driver.manage().timeouts().implicitlyWait(10,TimeUnit.SECONDS);
198      //paid terms of service
199      WebElement paid_TOS = driver.findElement(By.xpath("//a[normalize-space()='Paid Service Terms of Service']"));
200      highlighttermethd(driver,paid_TOS);
201      paid_TOS.click();
202      //paid service usage rules
203      WebElement paid_text = driver.findElement(By.xpath("//*[@id='main-content']/div/p[1]"));
204      highlighttermethd(driver,paid_text);
205      Thread.sleep(3000);
206      String txt1 = paid_text.getText();
207      if(txt1.contains("YouTube allow you to subscribe to certain premium features or view content in exchange for a one-time or recurring fee, as applicable"))
208          System.out.println("The validate line is present in Paid Terms of service");
209      //paid service usage rules
210      WebElement padi_SUR = driver.findElement(By.xpath("//*[@id='main-sidebar']/ul/li[3]/a"));
211      highlighttermethd(driver,padi_SUR);
212      padi_SUR.click();
213      WebElement service_usage_rule = driver.findElement(By.xpath("//*[@id='main-content']/div/p[1]"));
214      highlighttermethd(driver,service_usage_rule);
215      Thread.sleep(3000);
216      String SUR_txt = service_usage_rule.getText();
217      if(SUR_txt.contains("As Described in the")) {
218          System.out.println("The validate content in paid service usage rule is True");
219      }
220      //else {
221      //    System.out.println("The validated line is not present in paid service usage rule");
222      //}
223  }
224  //collection society notices
225  }
```

The screenshot shows the Eclipse IDE with a Java file named `Youtube.java`. The code is a Selenium script that validates content on YouTube. It includes the following logic:

- It checks if the text "As described in the" is present in the page. If not, it prints a message.
- It collects society notices by finding a link in the sidebar, clicking it, and then finding a paragraph in the content area. It checks if the text "A collecting society is" is present.
- It checks for a copyright issue by finding a link in the sidebar, clicking it, and then finding a paragraph in the content area. It checks if the text "If your copyright-protected work was posted on YouTube" is present.

The code is written in Java and uses Selenium WebDriver for browser automation. The IDE interface shows the Package Explorer, Project Explorer, and Console. The console output indicates that the script terminated successfully.

The screenshot shows the Eclipse IDE with a Java file named `Youtube.java`. The code is a Selenium script that validates content on YouTube. It includes the following logic:

- It checks if the text "YouTube has always had a set of Community Guidelines" is present in the page. If not, it prints a message.
- It checks for a copyright issue by finding a link in the sidebar, clicking it, and then finding a paragraph in the content area. It checks if the text "If your copyright-protected work was posted on YouTube" is present.

The code is written in Java and uses Selenium WebDriver for browser automation. The IDE interface shows the Package Explorer, Project Explorer, and Console. The console output indicates that the script terminated successfully.

SOURCE CODE:

```
package selenium_project;
import java.util.concurrent.TimeUnit;
import org.openqa.selenium.By;
import org.openqa.selenium.JavascriptExecutor;
import org.openqa.selenium.WebDriver;
import org.openqa.selenium.WebElement;
import org.openqa.selenium.chrome.ChromeDriver;
import org.openqa.selenium.support.ui.ExpectedConditions;
import org.openqa.selenium.support.ui.WebDriverWait;
import org.testng.annotations.AfterSuite;
import org.testng.annotations.BeforeSuite;
import org.testng.annotations.Test;

public class Youtube {
    String driverpath=
"C:\\Users\\jacobrajathangamuthu\\Downloads\\chromedriver_win32
(2)\\chromedriver.exe";

    public ChromeDriver driver;
    @BeforeSuite
    public void fnInitialization() {
        System.setProperty("webdriver.chrome.driver",driverpath);
        driver = new ChromeDriver();
    }
    @Test(priority=1)
    public void fnMaximize() {
        driver.manage().window().maximize();
    }
    @Test(priority=2)
    public void fnYoutubelogo() throws InterruptedException{
        driver.get("https://www.google.com/");
        WebElement search1 =
driver.findElement(By.xpath("//input[@class='gLfyf gsfi']"));
        search1.sendKeys("youtube");
        WebElement Google_Search =
driver.findElement(By.xpath("//input[@class='gNO89b']"));

        driver.manage().timeouts().implicitlyWait(20,TimeUnit.SECONDS);
        Google_Search.click();
        WebElement youtube =
driver.findElement(By.xpath("//h3[@class='LC20lb MBeuO DKV0Md']"));
        youtube.click();
    }
}
```

```

        Thread.sleep(100);
        //highlighting logo should come here
        WebElement logo = driver.findElement(By.id("logo"));
        highlightermethod(driver,logo);
        if(logo.isDisplayed()) {
            System.out.println("Logo option for video platform is
displayed");
        }
    }
    @Test(priority=3)
    public void fnSignin() throws InterruptedException{
        WebElement sign_in = driver.findElement(By.xpath("//tp-yt-
paper-button[@aria-label='Sign in']"));
        sign_in.click();
        WebElement username =
driver.findElement(By.xpath("//input[@class='whsOnd zHQkBf']"));
        username.sendKeys("yakobraja265@gmail.com");
        driver.manage().timeouts().implicitlyWait(25,
TimeUnit.SECONDS);
        WebElement send_btn =
driver.findElement(By.xpath("//div[@jsname='Njthtb']"));
        send_btn.click();
        driver.manage().timeouts().implicitlyWait(25,
TimeUnit.SECONDS);
        WebElement pass = driver.findElement(By.xpath("//input[@aria-
label='Enter your password']"));
        pass.sendKeys("Yakob@2001");
        WebElement send_btn1 =
driver.findElement(By.id("passwordNext"));
        send_btn1.click();
        Thread.sleep(1500);

    }
    @Test(priority=4)
    public void fnSearch() throws InterruptedException {
        WebElement search =
driver.findElement(By.xpath("//input[@id='search']"));
        Thread.sleep(2000);
        search.sendKeys("cricket world cup 2012 final highlights in
english");
        WebElement btn = driver.findElement(By.id("search-icon-
legacy"));
        btn.click();
    }
    @Test(priority=5)
    public void fnMenuoption() throws InterruptedException {

```

```

        WebElement menu_opt =
driver.findElement(By.xpath("/html/body/ytd-app/div/ytd-page-manager/ytd-
search/div[1]/ytd-two-column-search-results-renderer/div/ytd-section-list-
renderer/div[2]/ytd-item-section-renderer/div[3]/ytd-video-
renderer[1]/div[1]/div/div[1]/div/div/ytd-menu-renderer/yt-icon-
button/button"));
        menu_opt.click();
        WebElement queue = driver.findElement(By.cssSelector("#items > ytd-
menu-service-item-renderer.style-scope.ytd-menu-popup-renderer.iron-
selected > tp-yt-paper-item"));
        queue.click();
        //cancel opt1
        WebElement queue_cancel =
driver.findElement(By.xpath("//button[@class='ytp-miniplayer-close-button
ytp-button']"));
        driver.manage().timeouts().implicitlyWait(25, TimeUnit.SECONDS);
        queue_cancel.click();
        driver.manage().timeouts().implicitlyWait(15, TimeUnit.SECONDS);
        WebElement close_player =
driver.findElement(By.cssSelector("#confirm-button"));
        close_player.click();
        if(close_player.isEnabled()) {
            System.out.println("Queue option is enabled");
        }
        //add to playlist
        Thread.sleep(1000);
        WebElement menuopt_2 =
driver.findElement(By.xpath("/html/body/ytd-app/div/ytd-page-manager/ytd-
search/div[1]/ytd-two-column-search-results-renderer/div/ytd-section-list-
renderer/div[2]/ytd-item-section-renderer/div[3]/ytd-video-
renderer[1]/div[1]/div/div[1]/div/div/ytd-menu-renderer/yt-icon-
button/button"));
        menuopt_2.click();
        WebElement play_list = driver.findElement(By.xpath("/html/body/ytd-
app/ytd-popup-container/tp-yt-iron-dropdown/div/ytd-menu-popup-
renderer/tp-yt-paper-listbox/ytd-menu-service-item-renderer[3]"));
        driver.manage().timeouts().implicitlyWait(25, TimeUnit.SECONDS);
        play_list.click();
        WebElement checkbox =
driver.findElement(By.id("checkboxContainer"));
        checkbox.click();
        WebElement checkbox_cancel = driver.findElement(By.id("close-
button"));
        checkbox_cancel.click();
        if(checkbox_cancel.isEnabled()) {
            System.out.println("Playlist button is enabled");

```

```

    }
    //reopr
    WebElement menuopt_3 =
driver.findElement(By.xpath("/html/body/ytd-app/div/ytd-page-manager/ytd-
search/div[1]/ytd-two-column-search-results-renderer/div/ytd-section-list-
renderer/div[2]/ytd-item-section-renderer/div[3]/ytd-video-
renderer[1]/div[1]/div/div[1]/div/div/ytd-menu-renderer/yt-icon-
button/button"));
    menuopt_3.click();
    WebElement report =
driver.findElement(By.xpath("//*[@id=\"items\"]/ytd-menu-service-item-
renderer[4]/tp-yt-paper-item/yt-formatted-string"));
    report.click();
    driver.manage().timeouts().implicitlyWait(20, TimeUnit.SECONDS);
    WebElement report_cancel =
driver.findElement(By.xpath("/html/body/ytd-app/ytd-popup-container/tp-yt-
paper-dialog/yt-report-form-modal-renderer/div/yt-button-renderer[1]/a/tp-yt-
paper-button/yt-formatted-string"));
    report_cancel.click();
    try {
        if(report.isEnabled())
            System.out.println("report button in the menu option is enabled");
    }
    catch(Exception e) {
        System.out.println("report button in the menu option is not enabled");
    }

    //Search cancel
    WebElement search_cancel =
driver.findElement(By.cssSelector("div#search-clear-button"));
    search_cancel.click();
    try {
        if(search_cancel.isEnabled())
            System.out.println("search cancel button is enabled");
    }
    catch(Exception e) {

        System.out.println("cancel button is can't acessable");
    }
}
@Test(priority=6)
public void fnPlayingvideo() throws InterruptedException {
    WebElement search_1 =
driver.findElement(By.xpath("//input[@id='search']"));
    search_1.sendKeys("cricket world cup 2012 final highlights in
english");

```

```

        WebElement btn_1 = driver.findElement(By.id("search-icon-legacy"));
        btn_1.click();
        WebElement video = driver.findElement(By.partialLinkText("Greatest
T20I innings ever? | Marlon Samuels in the T20 World Cup 2012 final"));
        String video1 = video.getText();
        driver.manage().timeouts().implicitlyWait(20, TimeUnit.SECONDS);
        video.click();
        if(video.isEnabled()) {
            System.out.println("The video is played");
        }
        Thread.sleep(5000);
        //Like the video
        WebElement like_btn = driver.findElement(By.xpath("/html/body/ytd-
app/div[1]/ytd-page-manager/ytd-watch-
flexy/div[5]/div[1]/div/div[6]/div[2]/ytd-video-primary-info-
renderer/div/div/div[3]/div/ytd-menu-renderer/div[1]/ytd-toggle-button-
renderer[1]"));
        like_btn.click();
        try {
            if(like_btn.isEnabled()) {
                System.out.println("Like button is enabled");
            }
        }
        catch(Exception e) {

            System.out.println("Like button is can't acessable");

        }
        //Validating the liked video
        WebElement guidebox = driver.findElement(By.xpath("//button[@aria-
pressed='false']"));
        WebDriverWait wait=new WebDriverWait(driver, 100);

        wait.until(ExpectedConditions.elementToBeClickable(guidebox)).click();
        Thread.sleep(2000);
        WebElement Like_box = driver.findElement(By.xpath("//yt-formatted-
string[contains(text(),'Liked videos')]"));
        Like_box.click();
        Thread.sleep(1000);
        //WebElement Liked_video =
driver.findElement(By.partialLinkText("Greatest T20I innings ever? | Marlon
Samuels in the T20 World Cup 2012 final"));
        //String Liked_video2 = Liked_video.getText();
        try {
            WebElement Liked_video =
driver.findElement(By.partialLinkText("Greatest T20I innings ever? | Marlon

```

```

Samuels in the T20 World Cup 2012 final"));
        String Liked_video2 = Liked_video.getText();
        if(Liked_video2.equals(video1)) {
            System.out.println("The Validate video is present in Liked
video field");
        }
    }
    catch(Exception e) {
        System.out.println("Validated video is not present in the liked list");
    }
}

@Test(priority=7)
public void fnValidatecontent() throws InterruptedException {
    driver.manage().timeouts().implicitlyWait(25,TimeUnit.SECONDS);
    JavascriptExecutor js = (JavascriptExecutor) driver;
    //js.executeScript("window.scrollTo(0,350)", "");
    WebElement Terms = driver.findElement(By.xpath("/html/body/ytd-
app/div/tp-yt-app-drawer/div[2]/div/div[2]/div[2]/ytd-guide-
renderer/div[2]/div[2]/a[1]"));
    js.executeScript("arguments[0].scrollIntoView();", Terms);
    Terms.click();
    WebElement terms_of_service =
driver.findElement(By.xpath("//*[@id=\"main-content\"]/div/div/p[1]"));
    highlightermethod(driver,terms_of_service);
    Thread.sleep(3000);
    String txt = terms_of_service.getText();
    if(txt.contains("designed to help you understand")) {
        System.out.println("The validate line is present in Terms of service");
    }
    else {
        System.out.println("The validate line is wrong");
    }
    driver.manage().timeouts().implicitlyWait(10,TimeUnit.SECONDS);
    //paid terms of service
    WebElement paid_TOS = driver.findElement(By.xpath("//a[normalize-
space()='Paid Service Terms of Service']"));
    highlightermethod(driver,paid_TOS);
    paid_TOS.click();

    WebElement paid_text = driver.findElement(By.xpath("//*[@id=\"main-
content\"]/div/p[1]"));
    highlightermethod(driver,paid_text);
    Thread.sleep(3000);
    String txt1 = paid_text.getText();
    if(txt1.contains("YouTube allow you to subscribe to certain premium

```

features or view content in exchange for a one-time or recurring fee, as applicable to the relevant features or content (collectively, each a “Paid Service” and collectively the “Paid Services”). The Paid Services include YouTube rentals & purchases, paid channel subscriptions, feature-based subscriptions and other YouTube services which may be offered by YouTube in the future. Your transactions and any other use of the Paid Services are subject to these YouTube Paid Service Terms of Service (“Paid Service Terms”). You acknowledge and agree that your transaction for the Paid Service is with Google Ireland Limited .”))

```
System.out.println("The validate line is present in Paid Terms of service");
```

```
//paid service usage rules
WebElement padi_SUR =
driver.findElement(By.xpath("//*[@id=\"main-sidebar\"]/ul/li[3]/a"));
highlightermethod(driver,padi_SUR);
padi_SUR.click();
WebElement service_usage_rule =
driver.findElement(By.xpath("//*[@id=\"main-content\"]/div/p[1]"));
highlightermethod(driver,service_usage_rule);
Thread.sleep(3000);
String SUR_txt = service_usage_rule.getText();
if(SUR_txt.contains("As described in the")) {
    System.out.println("The validate content in paid service usage rule is True");
}
else {
    System.out.println("The validated line is not present in paid service usage rule");
}
```

```
//collecting society notices
WebElement CSN = driver.findElement(By.xpath("//*[@id=\"main-sidebar\"]/ul/li[4]/a"));
highlightermethod(driver,CSN);
CSN.click();
WebElement CSN_para = driver.findElement(By.xpath("//*[@id=\"hcf-content\"]/section/div/div[1]/article/section/div/div[1]/div/p[1]"));
highlightermethod(driver,CSN_para);
Thread.sleep(3000);
String CSN_txt = CSN_para.getText();
if(CSN_txt.contains("A collecting society is")) {
    System.out.println("The validated line is present in collecting society notices");
}
}
```

```

        else {
            System.out.println("The validated line is not present in collecting
society notices");
        }
        driver.navigate().back();
        //copyrightissue
        WebElement Copyright = driver.findElement(By.xpath("//*[@id=\"main-
sidebar\"]/ul/li[5]/a"));
        highlightermethod(driver,Copyright);
        Copyright.click();
        WebElement Copyright_para =
driver.findElement(By.xpath("//*[@id=\"hcf-
content\"]/section/div/div[1]/article/section/div/div[1]/div/p[1]"));
        highlightermethod(driver,Copyright_para);
        Thread.sleep(3000);
        String Copyright_txt = Copyright_para.getText();
        if(Copyright_txt.contains("If your copyright-protected work was posted
on YouTube")) {
            System.out.println("The validated line is present in copyright issue
");
        }
        else {
            System.out.println("The validated line is not present in copyright
issue");
        }
        driver.navigate().back();
        //community guidelines
        WebElement guideline = driver.findElement(By.xpath("//*[@id=\"main-
sidebar\"]/ul/li[6]/a"));
        highlightermethod(driver,guideline);
        guideline.click();
        WebElement guideline_para =
driver.findElement(By.xpath("//*[@id=\"community-guidelines\"]/p[1]"));
        ((JavascriptExecutor)
driver).executeScript("arguments[0].scrollIntoView(true);", guideline_para);
        highlightermethod(driver,guideline_para);
        Thread.sleep(3000);
        String guideline_txt = guideline_para.getText();
        if(guideline_txt.contains("YouTube has always had a set of Community
Guidelines")) {
            System.out.println("The validated line is present in community
guideines");
        }
        else {
            System.out.println("The validated line is not present in community
guidelines");
        }
    }
}

```

```

    }
}
@Test(priority=8)
public void fnPrint() {
    System.out.println("Testcases is passed");
}
@AfterSuite
public void fnClosebrowser() {
    driver.close();
}
private static void highlightermethod(WebDriver driver, WebElement
logo) {
    JavascriptExecutor js = (JavascriptExecutor) driver;
    js.executeScript("arguments[0].setAttribute('style', 'background:
Blue; border: 2px solid red;');", logo);

}
}

```

REFERENCES

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- <https://www.javatpoint.com/automation-testing-tool>
- <https://www.testbytes.net/blog/automation-testing-tutorial/>
- <https://www.guru99.com/>
- <https://www.youtube.com/>