



UNITED INTERNATIONAL UNIVERSITY (UIU)

Dept. of Computer Science & Engineering

Trimester: Spring 2024

Course No: CSE 4495

Title: Software Quality Assurance and Testing

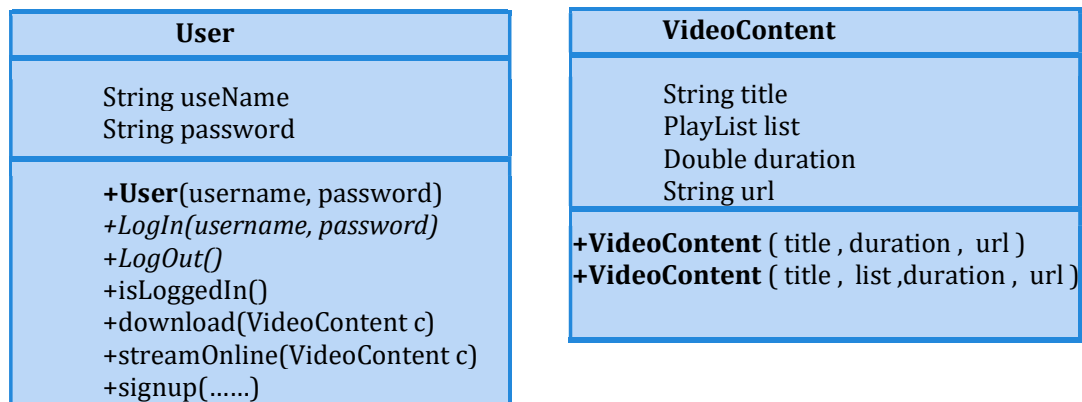
Section: B, CT-2

Time: 20 minutes

Marks: 20

Name	ID
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You have created an online content management platform that hosts video tutorials for a wide range of topics. Consider the following UML diagrams for users and content. Of course you have made all the content free to stream online. But to download any video the user must first be logged in. You have to write unit test cases in JUnit notation to test the **download()** method from user class. **[10+10 = 20]**



/*case-1 write a test case to simulate a user who attempts to download a content without logging in. You can verify if a user is logged in or not by invoking `isLoggedIn()` method. If `download()` is invoked without logging in the system will throw an `PermissionDeniedException` with the message "Please log in to download this content, or sign up here" .*/

```
public void testDownload_not_logged_in() {  
    //Initialization  
    User u = new User("fahad","1234");  
    VideoContent v = new VideoContent("Jmeter  
Tutorial", 600, "https://www.mytube.com/u/12/v=126391")  
    //Steps  
    AssertFalse(u.isLoggedIn());  
  
    Throwable e = AssertThrows(  
        "PermissionDeniedException.class", () -> {u.download(v);});  
  
    AssertEquals("Please log in to download this content, or  
sign up here", e.getMessage());  
}
```

*/*case-2 Now write a test case to simulate a user who will LogIn() and then attempt the download. You can verify if a user is logged in or not by invoking isLoggedIn() method. If the download() method is invoked after logging in the user will be able to start the download. This method should not take more than 200ms to complete, and will return the content's URL string to the caller. Hint- Use AssertTimeout() and AssertEquals() to test this scenario*/*

```
public void testDownload_logged_in() {  
    //Initialization  
    User u = new User("fahad", "1234");  
    VideoContent v = new VideoContent("Jmeter  
Tutorial", 600, "https://www.mytube.com/u/12/v=126391")  
    u.Login("fahad", "1234");  
  
    //Steps  
    AssertTrue(u.isLoggedIn());  
    String returnedURL = AssertTimeout(ofMillis(200), () -  
>{u.download(v);});  
  
    AssertEquals(v.getURL(), returnedURL);  
  
}
```