



VIT[®]
Vellore Institute of Technology
(Deemed to be University under section 3 of UGC Act, 1956)

DIGITAL ASSIGNMENT -2

NAME: P.NITYASRE

REGNO: 17MIS1007

COURSE: ADVANCE SOFTWARE TESTING

COURSE CODE: SWE3006

PROFESSOR: NACHİYAPPAN.S

APPLICATION:

EDX -ONLINE COURSES

ABSTRACT:

As a global non-profit, edX is transforming traditional education, removing the barriers of cost, location and access.

Fulfilling the demand for people to learn on their own terms.

edX is reimagining the possibilities of education, providing the highest-quality, stackable learning experiences including the ground-breaking Micro-Masters programs.

Test Environment:

Software Items under Test:

- Experitest
- Record Espresso test
- Android Studio
- Expertise(seetest)

Components In Software Test Environment:

- Java 8.1
- Windows10
- Andriod7

Performance Testing:

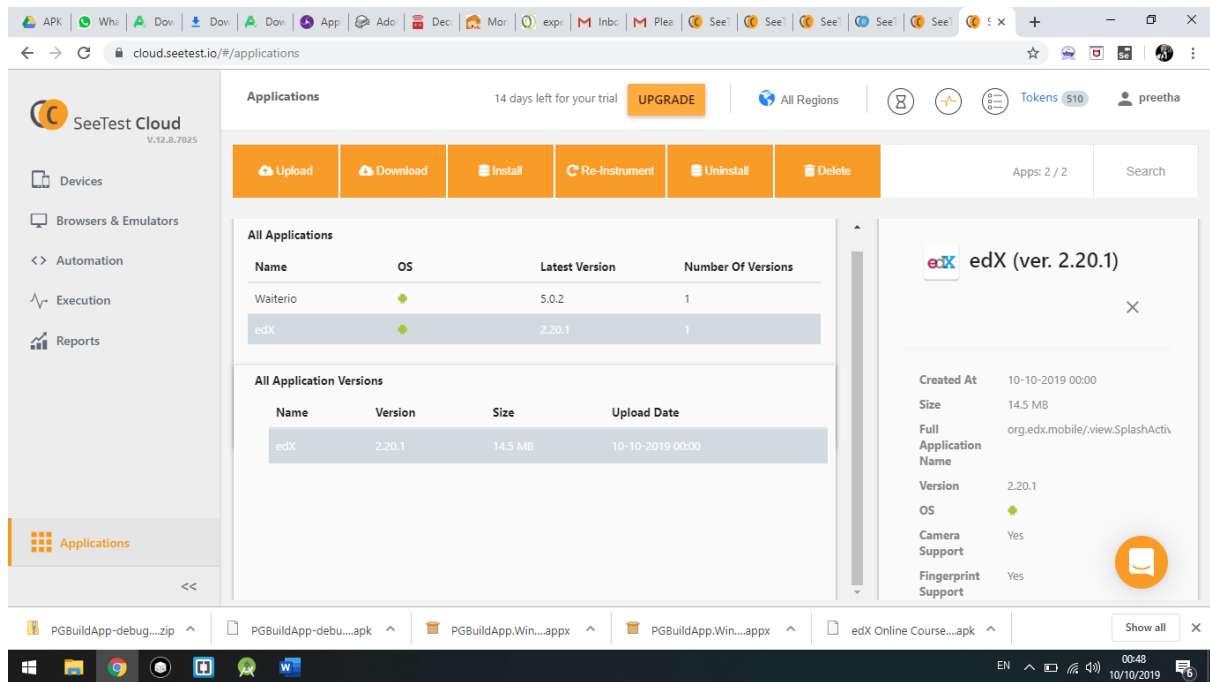
Non functional:

- Once the run starts perform some tasks that are intensive to the app to observe the graph battery graph and CPU usage.
 - Create an application
 - Then go for expiritest and then login using the gmail account.
 - Upload the apk file to expiritest
 - Install the files and select the devices what you want
 - After selecting go for my devices and open it.
 - Build the whole application as apk and create the account in the expirite.com after that we will get an confirmation.
 - Save the program and run it in emulator and see the functioning of an app.
- The test scripts are generated and add assertions and save it.
- Status of the test will be shown.

PROCEDURES:

- Record the application upto 5 minutes.
- Stop recording, save the report.
- Automation button in left panel, select the OS and category of the application.
- Os version and app type will be visible.
- Framework and language will be in the right Panel
- After running the script queued test, running test will be done
- Test result will be generated as pdf
- View the reports and take screenshots.
- Open the first tab and then reports and then test case status
- Take the screenshots of the test case reports(pass/fail).

Test Report



Testing Types used:

- Performance Testing
- Functional Testing

Performance Testing:

We had Used seetest which is hosted by expertise to to test following feature

- Duration
- Speed Index
- CPU
- Memory
- Battery
- Network

Test Case:

Testcase id	Test scenario	Test data	Test steps	Expected output	Actual output	Pass/fail	
TC1	ONCLICK	Open the app	Refresh the screen	Display the screen	Display screen	pass	
TC2	Selecting online course	No of courses	Onclick the vacancy courses	Show all courses	Only less courses	fail	

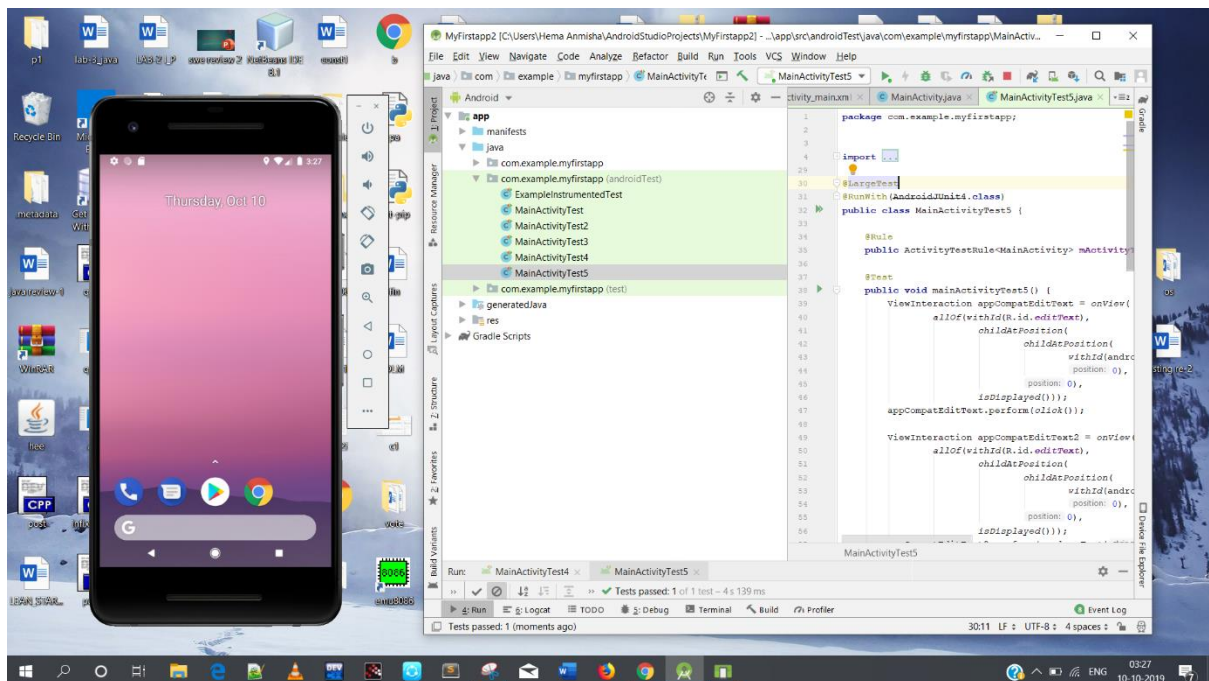
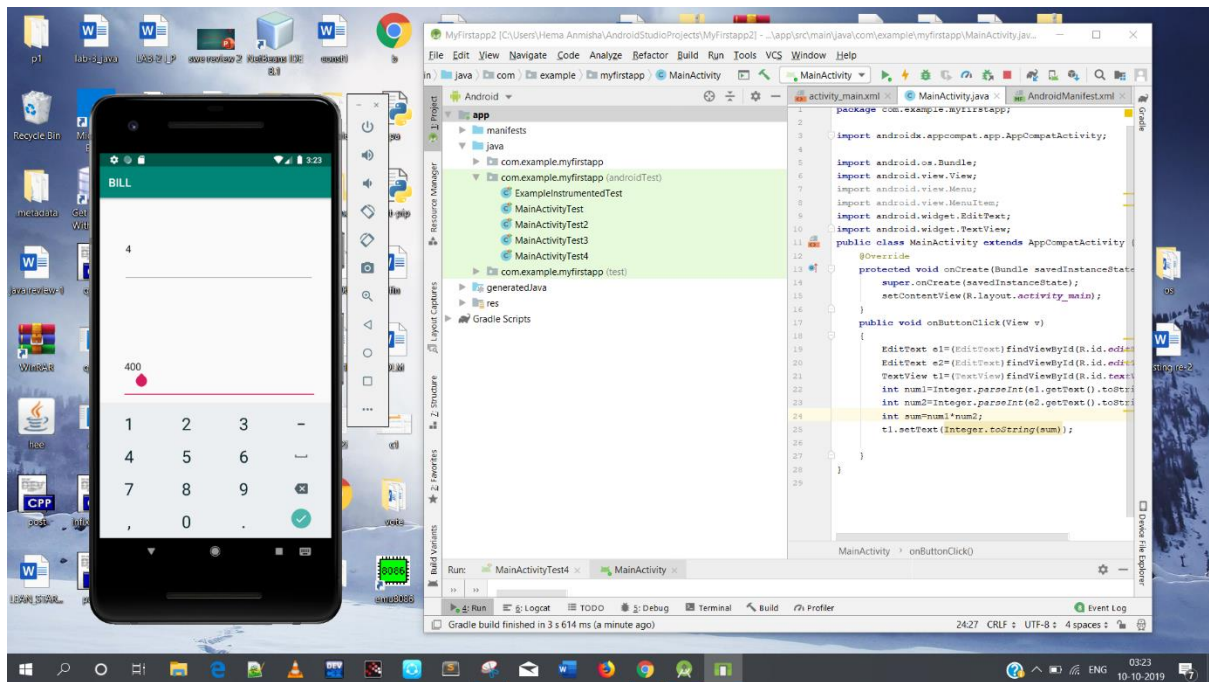
TC3	Discovery of course	All courses	Check the courses	User choice course	Course user needed	pass	
TC4	degrees	All the degree courses	Verify the courses	Degrees of courses	All degrees courses	pass	
TC5	Payment button	Card details	onclick	Paid success	Paid success	pass	

Functional Testing:

We had the Functional Testing the name is espresso tool which is built in android studio and after building the application we can run the application

Procedure

- The given app in Android Studio (Profile/Debug) and convert all the small file types to the java Dex
- Perform the Gradle sync in the Studio for the dependencies of the files and Prepare for the Resource monitor of the App.
- Run the Given app from the AVD manager and select virtual or physical device.
- Once the run starts perform some tasks that are intensive to the app to observe the graph battery graph and CPU usage
- From the palette window.drag and drop two number fields and position them according to your choice on the layout
- Double click on each of the icon and remove the text in both the number fields
- Now drag and drop a button and change the text to Pay
- Save your program and run it in your emulator to see the functioning of the app
- Run and record as expression
- Now perform the necessary actions for your applications
- The test scripts and generated
- Add assertions and save them and run the whole process and status will be shown



package com.example.myfirstapp;

import android.view.View;
import android.view.ViewGroup;
import android.view.ViewParent;

```
import androidx.test.espresso.ViewInteraction;
import androidx.test.filters.LargeTest;
import androidx.test.rule.ActivityTestRule;
import androidx.test.runner.AndroidJUnit4;
```

```
import org.hamcrest.Description;
import org.hamcrest.Matcher;
import org.hamcrest.TypeSafeMatcher;
import org.junit.Rule;
import org.junit.Test;
import org.junit.runner.RunWith;
```

```
import static androidx.test.espresso.Espresso.onView;
import static androidx.test.espresso.action.ViewActions.click;
import static androidx.test.espresso.action.ViewActions.closeSoftKeyboard;
import static androidx.test.espresso.action.ViewActions.pressImeActionButton;
import static androidx.test.espresso.action.ViewActions.replaceText;
import static androidx.test.espresso.matcher.ViewMatchers.isDisplayed;
import static androidx.test.espresso.matcher.ViewMatchers.withId;
import static androidx.test.espresso.matcher.ViewMatchers.withText;
import static org.hamcrest.Matchers.allOf;
```

```
@LargeTest
```

```
@RunWith(AndroidJUnit4.class)
```

```
public class MainActivityTest5 {
```

```
    @Rule
```

```
    public ActivityTestRule<MainActivity> mActivityTestRule = new
    ActivityTestRule<>(MainActivity.class);
```

```
    @Test
```

```
    public void mainActivityTest5() {
        ViewInteraction appCompatEditText = onView(
            allOf(withId(R.id.editText),
                childAtPosition(
                    childAtPosition(
                        withId(android.R.id.content),
                        0),
                    0),
                isDisplayed()));
        appCompatEditText.perform(click());

        ViewInteraction appCompatEditText2 = onView(
            allOf(withId(R.id.editText),
                childAtPosition(
                    childAtPosition(
```

```

        withId(android.R.id.content),
        0),
        0),
        isDisplayed());
appCompatEditText2.perform(replaceText("4"), closeSoftKeyboard());

ViewInteraction appCompatEditText3 = onView(
    allOf(withId(R.id.editText2),
        childAtPosition(
            childAtPosition(
                withId(android.R.id.content),
                0),
                1),
            isDisplayed()));
appCompatEditText3.perform(replaceText("400"), closeSoftKeyboard());

ViewInteraction appCompatEditText4 = onView(
    allOf(withId(R.id.editText2), withText("400"),
        childAtPosition(
            childAtPosition(
                withId(android.R.id.content),
                0),
                1),
            isDisplayed()));
appCompatEditText4.perform(pressImeActionButton());

ViewInteraction appCompatButton = onView(
    allOf(withId(R.id.button2), withText("calculate"),
        childAtPosition(
            childAtPosition(
                withId(android.R.id.content),
                0),
                3),
            isDisplayed()));
appCompatButton.perform(click());
}

private static Matcher<View> childAtPosition(
    final Matcher<View> parentMatcher, final int position) {

    return new TypeSafeMatcher<View>() {
        @Override
        public void describeTo(Description description) {
            description.appendText("Child at position " + position + " in parent ");
            parentMatcher.describeTo(description);
        }
    }
}

```

```

@Override
public boolean matchesSafely(View view) {
    ViewParent parent = view.getParent();
    return parent instanceof ViewGroup && parentMatcher.matches(parent)
        && view.equals(((ViewGroup) parent).getChildAt(position));
}
};
}

```

non functional

Test Script:

```

import io.appium.java_client.ios.IOSDriver;
import io.appium.java_client.ios.IOSElement;
import io.appium.java_client.remote.IOSMobileCapabilityType;
import io.appium.java_client.remote.MobileCapabilityType;
import org.junit.*;
import org.openqa.selenium.By;
import org.openqa.selenium.ScreenOrientation;
import org.openqa.selenium.remote.DesiredCapabilities;

import java.net.MalformedURLException;
import java.net.URL;

public class LocalIOSTest {

    private String accessKey = "eyJ4cC51ljo3NTQxOTQ5LCJ4cC5wIjo3NTQxOTQ3LCJ4cC5tIjoT  
VRVM01EWTBOVE0wT0RFeE1BliwiYWxnIjoSFMyNTYifQ.eyJleHAiOjE4ODYwMDYwNDMsImI  
zcyl6ImNvbS5leHBlcmI0ZXN0In0.UOaAPyONMhtheWFRKSpRCy_yizVYwjow92K78HYFowY";

    protected IOSDriver<IOSElement> driver = null;

    DesiredCapabilities dc = new DesiredCapabilities();

    @Before
    public void setUp() throws MalformedURLException {
        dc.setCapability("testName", "Quick Start iOS Native Demo");
    }
}

```



```

dc.setCapability("accessKey", accessKey);
dc.setCapability("deviceQuery", "@os='ios' and @category='PHONE'");
dc.setCapability(MobileCapabilityType.APP, "cloud:com.experitest.ExperiBank");
dc.setCapability(IOSMobileCapabilityType.BUNDLE_ID, "com.experitest.ExperiBank");
driver = new IOSDriver<>(new URL("https://cloud.seetest.io/wd/hub"), dc);
}

```

@Test

```

public void quickStartIOSNativeDemo() {
    driver.rotate(ScreenOrientation.PORTRAIT);
    driver.findElement(By.xpath("//*[@id='usernameTextField']")).sendKeys("company");
    driver.hideKeyboard();
    driver.findElement(By.xpath("//*[@id='passwordTextField']")).sendKeys("company");
    driver.findElement(By.xpath("//*[@id='loginButton']")).click();
    driver.findElement(By.xpath("//*[@id='makePaymentButton']")).click();
    driver.findElement(By.xpath("//*[@id='phoneTextField']")).sendKeys("0541234567");
    driver.findElement(By.xpath("//*[@id='nameTextField']")).sendKeys("Jon Snow");
    driver.findElement(By.xpath("//*[@id='amountTextField']")).sendKeys("50");
    driver.findElement(By.xpath("//*[@id='countryButton']")).click();
    driver.findElement(By.xpath("//*[@id='Switzerland']")).click();
    driver.findElement(By.xpath("//*[@id='sendPaymentButton']")).click();
    driver.findElement(By.xpath("//*[@id='Yes']")).click();
}

```

@After

```

public void tearDown() {
    System.out.println("Report URL: " + driver.getCapabilities().getCapability("reportUrl"));
    driver.quit();
}
}

```

APK Easy Tool x WhatsApp x Inbox (391) x Advance Softw x About Us | ed x SeeTest Cloud x HTC 10 IO-IL x SeeTest Trans x + -

cloud.seetestio/reporter/test-trans/index.html?trans_id=303

DURATION
18,202 ms
(00:00:18.202)

SPEED INDEX
COMING SOON

CPU
MAX: 64%
AVG: 41%

MEMORY
MAX: 1.92 GB
AVG: 1.85 GB

BATTERY
MAX: 2 mAh
AVG: 1 mAh

NETWORK
DOWNLOAD: 0
UPLOAD: 0

Advance Softwar...docx Advance Softwar...docx PGBuildApp-debug...zip PGBuildApp-debu...apk PGBuildApp.Win...appx Show all

01:42 10/10/2019

APK x Wha x Dow x Dow x App x App x Dec x Mor x exp x Inbo x Plea x See x See x See x See x See x See x + -

cloud.seetestio/#/applications

SeeTest Cloud
V.12.8.7825

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Applications 14 days left for your trial **UPGRADE** All Regions Tokens \$10 preetha

Upload Download Install Re-Instrument Uninstall Delete

Apps: 2 / 2 Search

All Applications

Name	OS	Latest Version	Number Of Versions
Waiterio	+	5.0.2	1
edX	+	2.20.1	1

All Application Versions

Name	Version	Size	Upload Date
edX	2.20.1	14.5 MB	10-10-2019 00:00

edX (ver. 2.20.1)

Created At: 10-10-2019 00:00
Size: 14.5 MB
Full Application Name: org.edx.mobile/view.SplashActiv
Version: 2.20.1
OS: +
Camera Support: Yes
Fingerprint Support: Yes

PGBuildApp-debug...zip PGBuildApp-debu...apk PGBuildApp.Win...appx PGBuildApp.Win...appx edX Online Course...apk Show all

00:48 10/10/2019

Application Screenshots:

The screenshot shows the SeeTest Cloud interface. On the left, a virtual HTC 10 device displays a 'Sign In' screen for the 'edX' application. The screen includes fields for 'User name or e-mail address' and 'Password', a 'Sign In' button, and links for 'Forgot your password?' and 'Or sign in with' (Google, Facebook). A red 'End' button is visible in the bottom left of the device interface. On the right, the 'Performance' tab is active, displaying a 'REPORT SAVED' message with a 'VIEW REPORT' button and a 'NEW TRANSACTION' section. The bottom of the interface shows a taskbar with various application icons and a system tray with the date 10/10/2019.

The screenshot shows the SeeTest Cloud interface. On the left, the virtual HTC 10 device displays the 'Sign In' screen. The 'User name or e-mail address' field is populated with 'paladugunitya@gmail.com'. A keyboard overlay is visible at the bottom of the device screen. On the right, the 'Report' tab is active, showing an 'Untitled Report' with a list of events: 'Click 609,1248' at 01:45:40, 'SendText paladugunitya@gmail.com' at 01:45:56, 'Click 820,1816' at 01:46:00, and 'Click 1210,1545' at 01:46:04. The bottom of the interface shows a taskbar with various application icons and a system tray with the date 10/10/2019.

APK Easy Tool x WhatsApp x Inbox (391) x Advance Softw x edX About Us | edX x SeeTest Cloud x HTC 10 IO-IL x Untitled Report x

cloud.seetest.io/report/report.html#/7543107/1

Untitled Report nityssy

(10/10/19 01:51:31)

HTC 10 IO-IL 004 (HTC 10) ▾

Untitled Group (+)

8 action(s)

Sign In

User name or e-mail address
paladugunitya@gmail.com

Password

00:00:00

Advance Softwar....docx ▾ Advance Softwar....docx ▾ PGBuildApp-debug....zip ▾ PGBuildApp-debu....apk ▾ PGBuildApp.Win....appx ▾ Show all x

Windows taskbar: 01:52 10/10/2019

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cloud.seetest.io/index.html?_hstc=252787542.3304c6781876ea6c2563bfc0fd2dcc99.1570651173173.1570651173173.1570651173173.18__hssc=252787542.1.1...

SeeTest Cloud V.12.8.7025

14 days left for your trial **UPGRADE** All Regions Tokens 497 preetha

Devices Browsers & Emulators Automation Execution **Reports** Applications

Reports

Status Passed,Failed,In... Type Mobile,Web ▾ Os 1 Selected ▾ Platform 2 Selected ▾ Date Range Today ▾ Executor Manual,Grid ▾ Search

Total: 2 / 2 [Open Reporter](#)

ID	Test Name	Status	Type	Platform	OS	Duration	Created	Started	Executor	User
M7543075	Untitled Report nitya	passed	Mobile	HTC 10	ANDROID 7.0	01m:15s	10-10-2019 01:44:01	10-10-2019 01:44:01	Manual	preethas.2017@vitstudent.ac.in
M7542798	preebless	passed	Mobile	SM-G955F	ANDROID 7.0	01m:44s	10-10-2019 01:26:42	10-10-2019 01:26:42	Manual	preethas.2017@vitstudent.ac.in

Advance Softwar....docx ▾ Advance Softwar....docx ▾ PGBuildApp-debug....zip ▾ PGBuildApp-debu....apk ▾ PGBuildApp.Win....appx ▾ Show all x

Windows taskbar: 01:44 10/10/2019

END