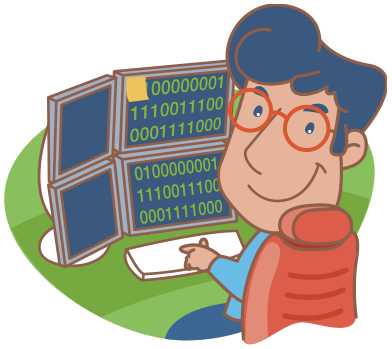
소프트웨어 테스팅

실습 11#: SikuliX

Eun Man Choi
emchoi@dgu.ac.kr

설계 목표

- SikuliX 설치
- SikuliX 실행
- 설계 문제
  - GUI 테스트 과제 등 파일 참고



SikuliX 설치

- SikuliX 설치 단계

1. Java → 스크립트를 작성하기 위한 프로그래밍 언어

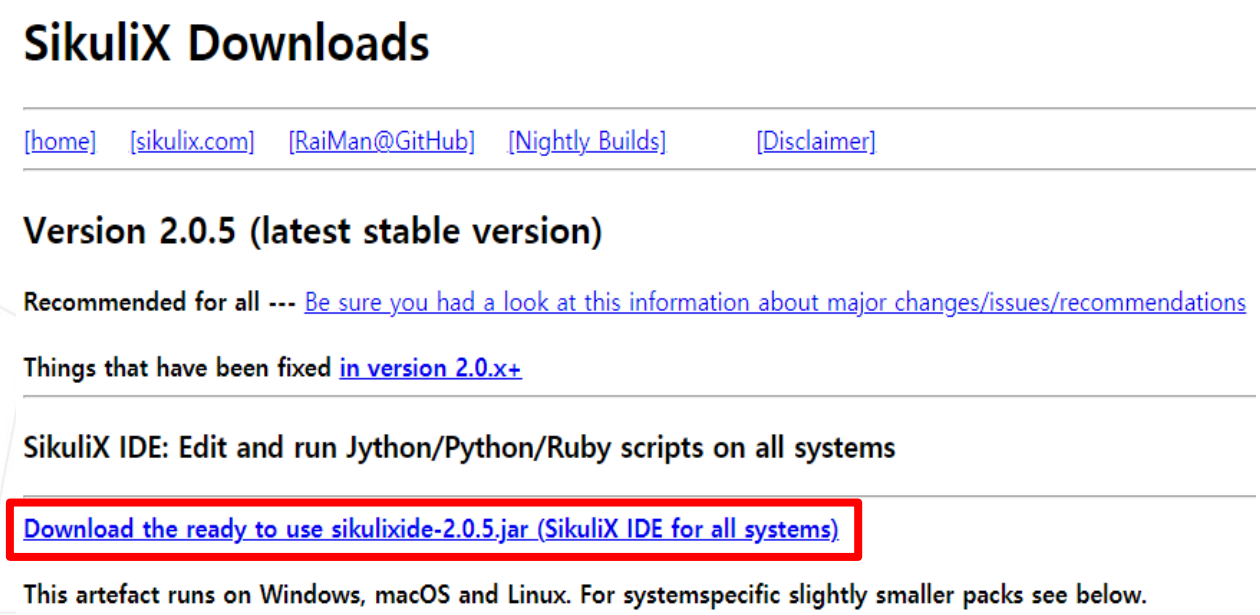
2. Eclipse → 스크립트를 컴파일하고 실행할 환경

3. SikuliX → GUI 테스트 프레임워크

SikuliX 설치

- SikuliX 설치 방법

- 링크로 들어가 SikuliX를 다운로드
  https://raiman.github.io/SikuliX1/downloads.html



SikuliX 설치

- **SikuliX 설치 방법**

- **링크 밑으로 내려가**
  SikuliX API: Use the SikuliX in Java programming 에서 본인 운영체제에 맞게 설치

SikuliX API: Use the SikuliX features in Java programming or Java aware environments

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Download the ready to use sikulixapi-2.0.5.jar
These artefacts are for use on a Java classpath or for Java programming in mature IDEs as library jar.

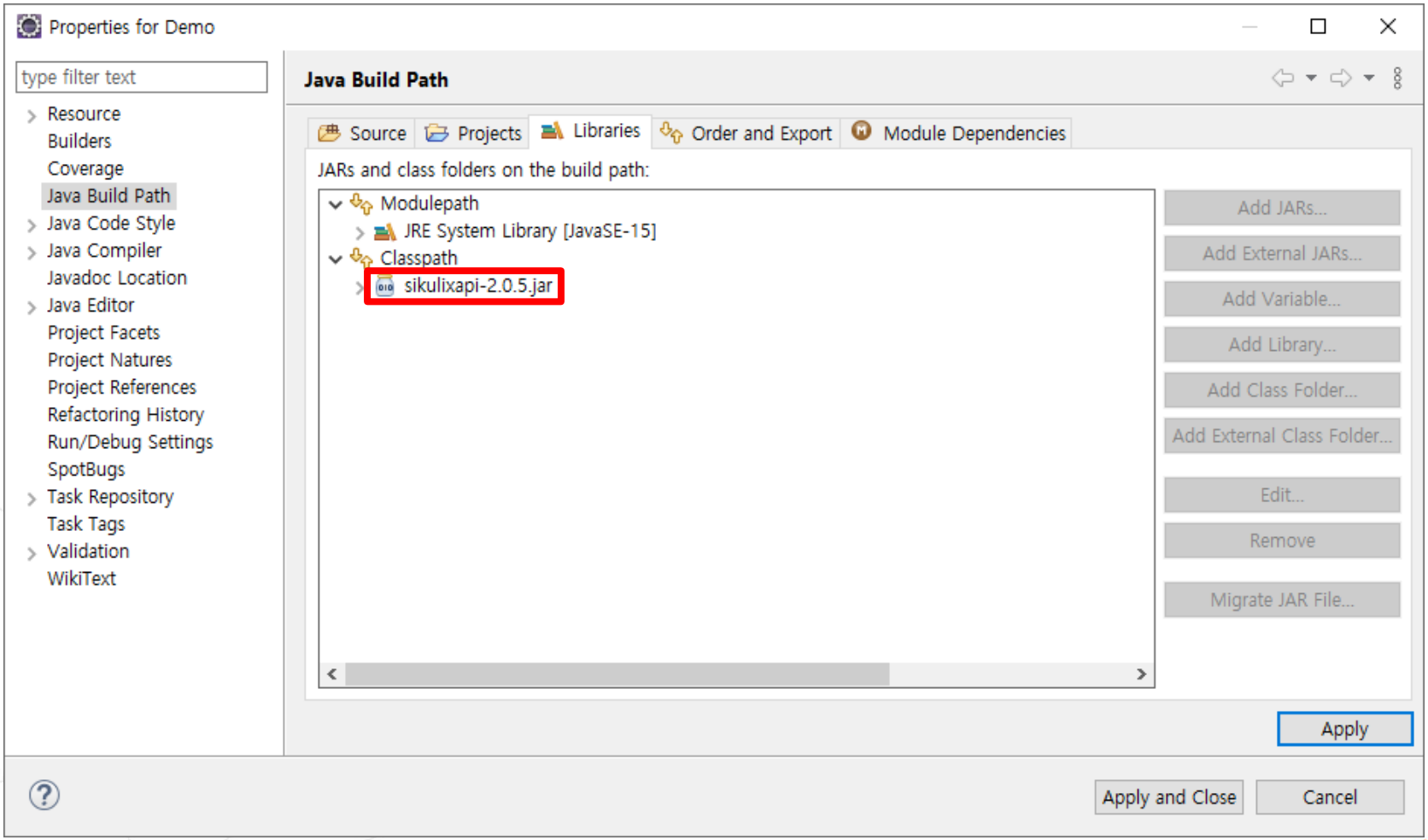
All systems: Download the ready to use sikulixapi-2.0.5.jar (SikuliX IDE for Windows)
Windows: Download the ready to use sikulixapi-2.0.5-win.jar (SikuliX IDE for Windows)
macOS: Download the ready to use sikulixapi-2.0.5-mac.jar (SikuliX IDE for macOS)
Linux: Download the ready to use sikulixapi-2.0.5-lux.jar (SikuliX IDE for Linux)

Maven coordinates for use in Maven aware contexts:

```
<dependency>
    <groupId>com.sikulix</groupId>
    <artifactId>sikulixapi</artifactId>
    <version>2.0.5</version>
</dependency>
```

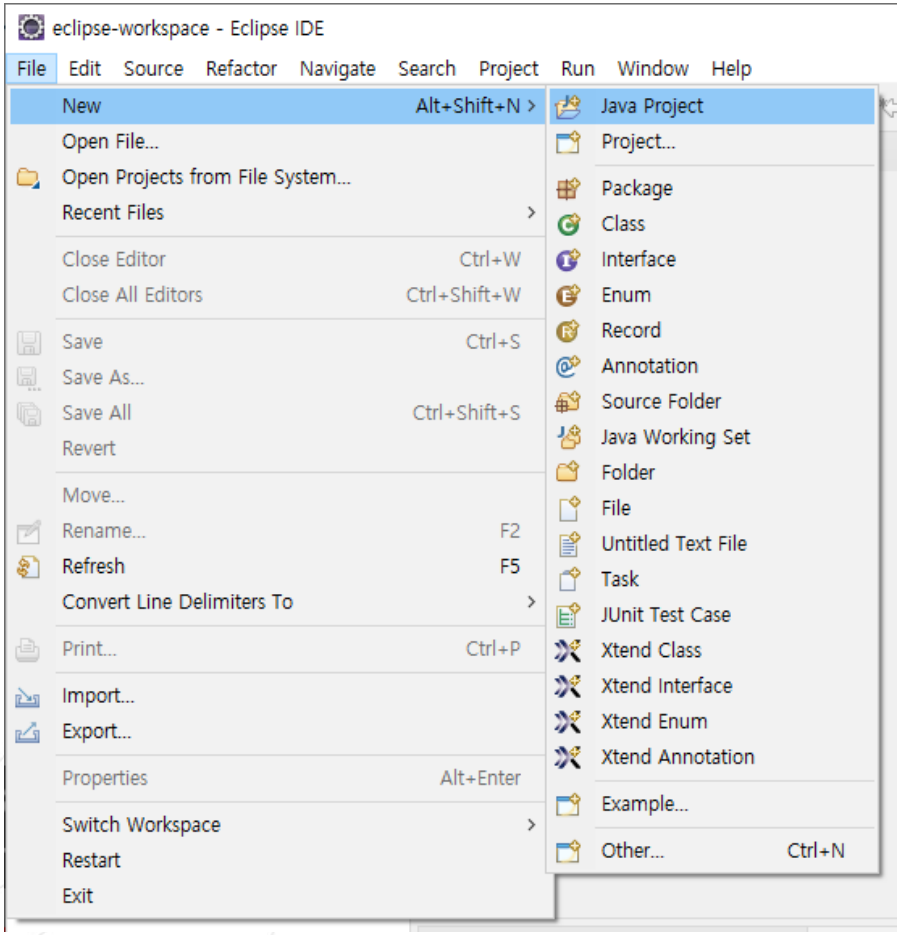
SikuliX 설치

- **SikuliX 설치 적용**



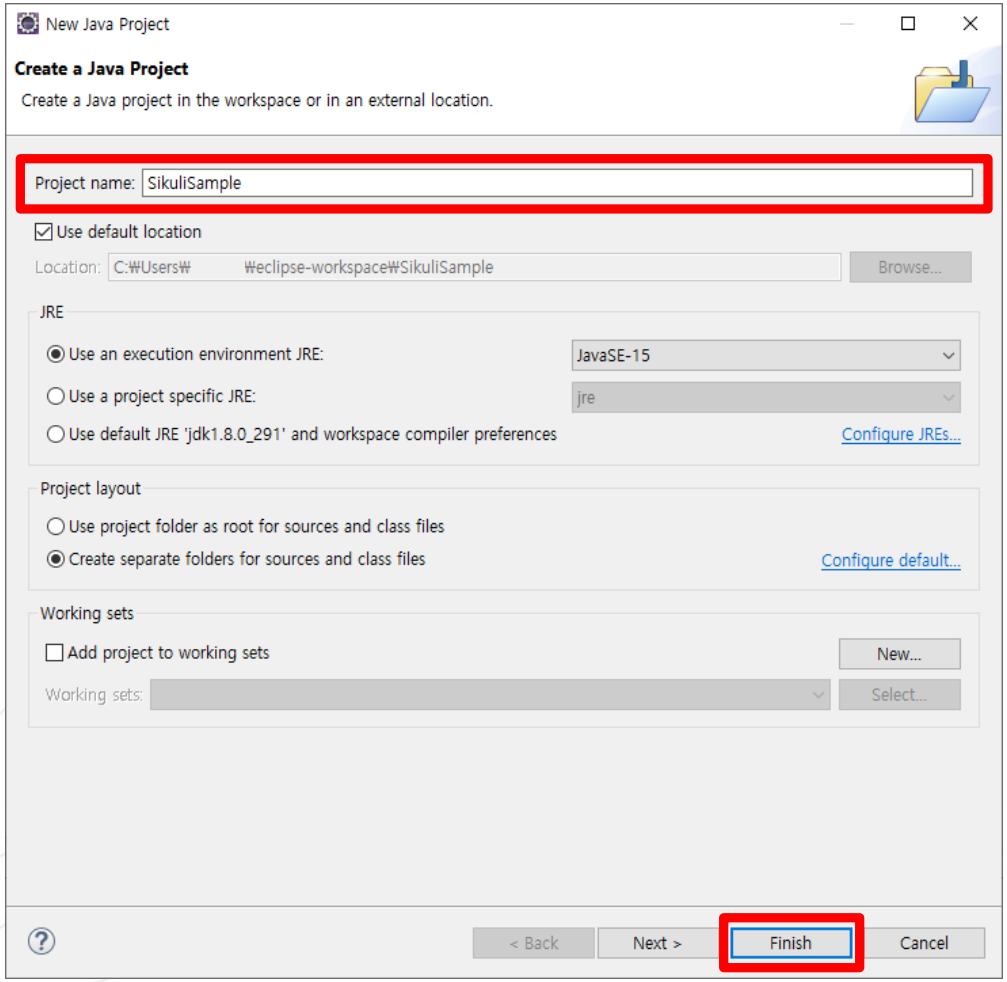
SikuliX 실행

- **File – New – Java Project - Next**



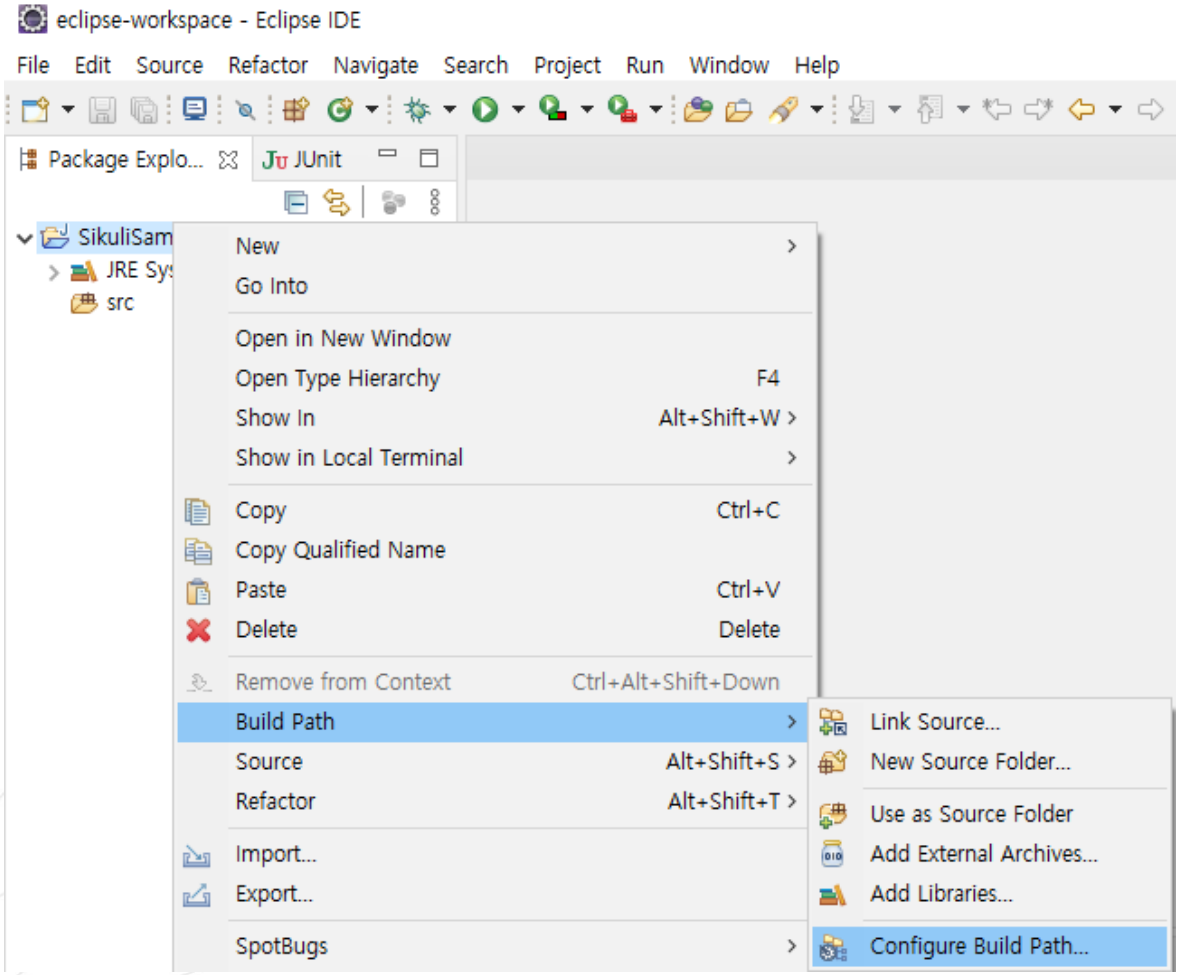
SikuliX 실행

- **Project name : SikuliSample -> Click Finish**



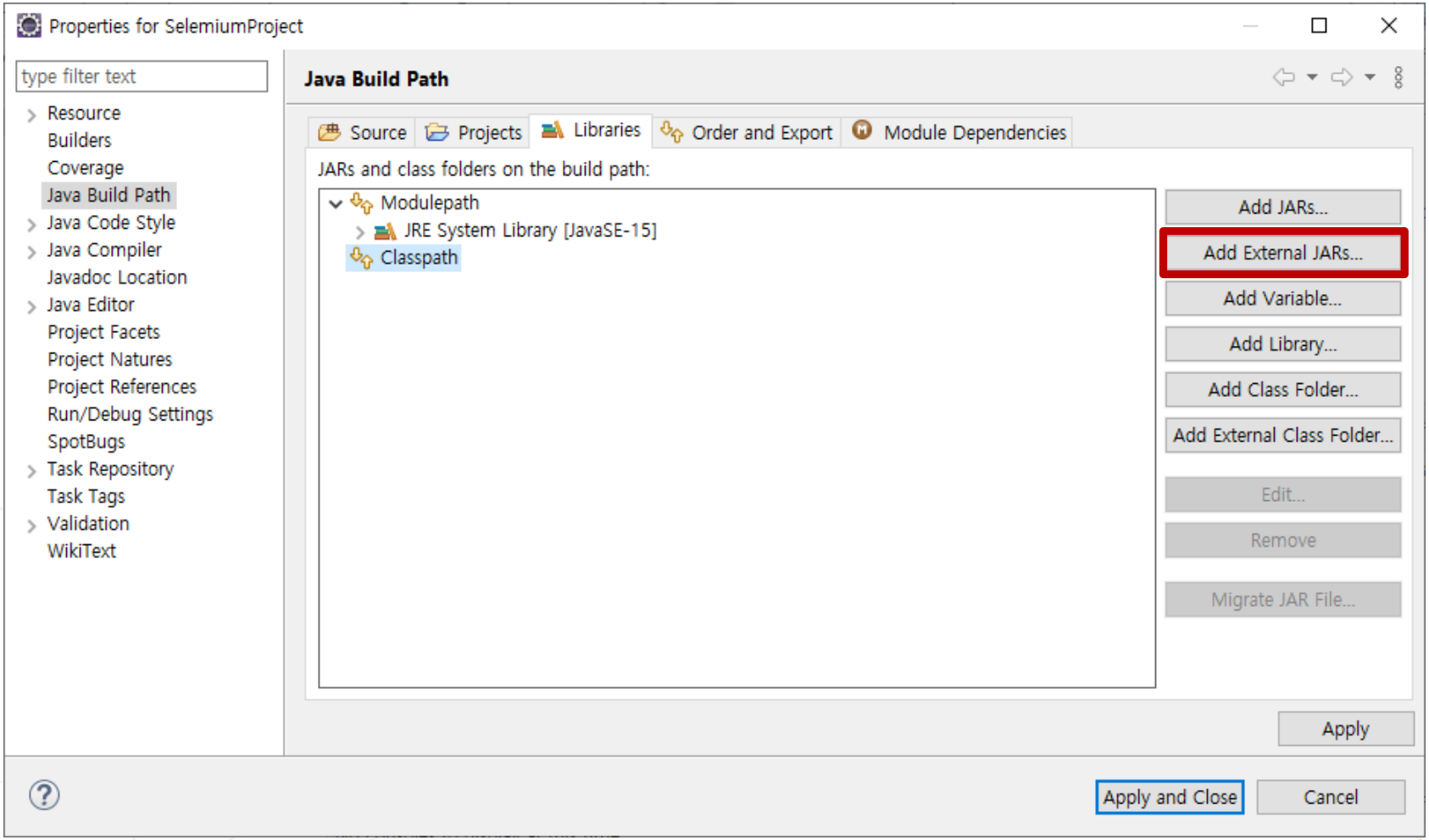
SikuliX 실행

- **Bulid Path – Configure Build Path**



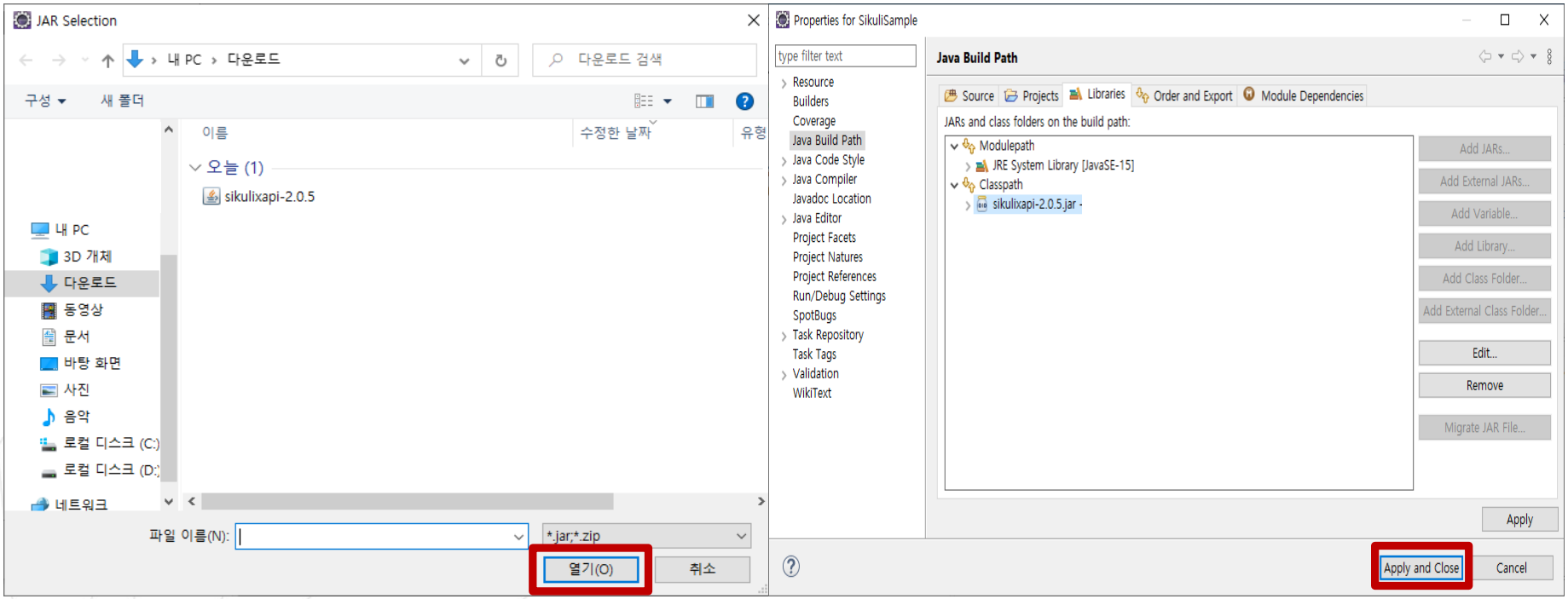
SikuliX 실행

- **Libraries(Tab) – Classpath(click) – Add External JARs**



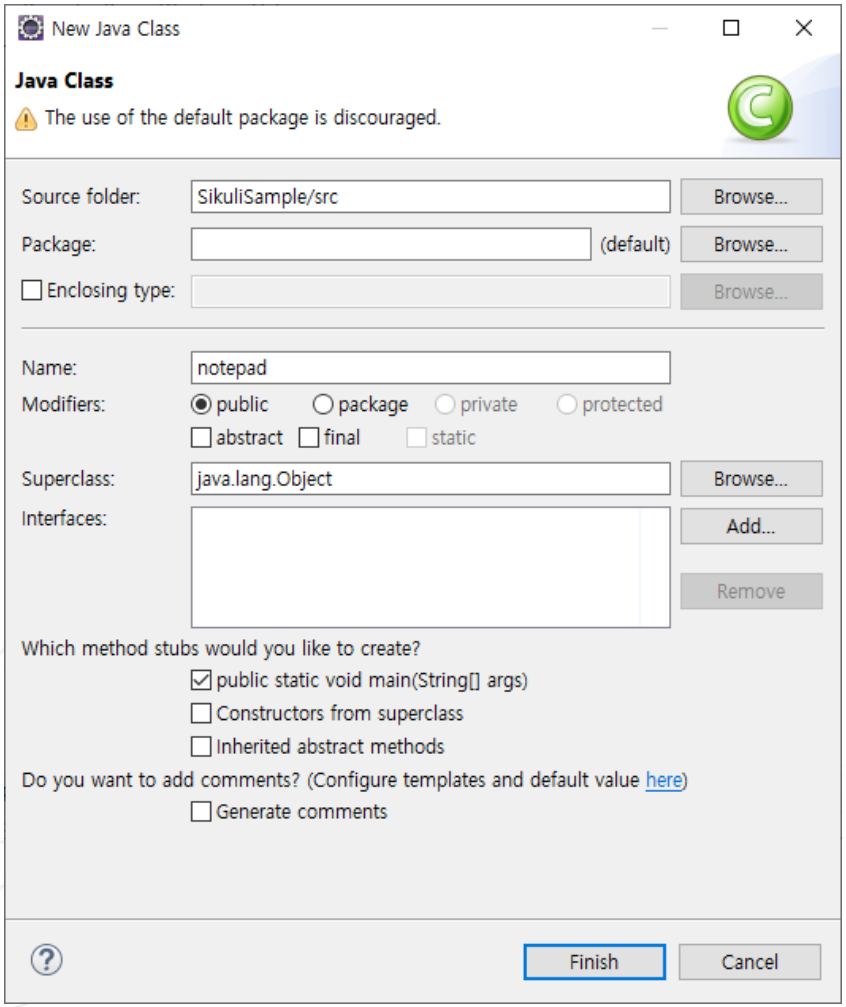
SikuliX 실행

- JAR File(select) – 열기(click)
- Classpath(확인) – Apply and Close



SikuliX 실행

- **src(right click) – New – Class – Finish**



SikuliX 실행

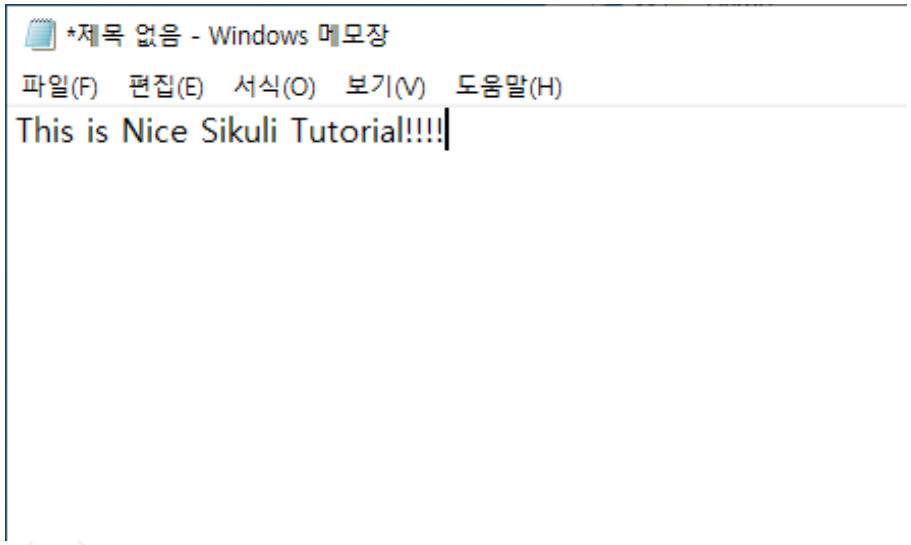
- **Input Code(notepad.txt 참조)**

notepad.java

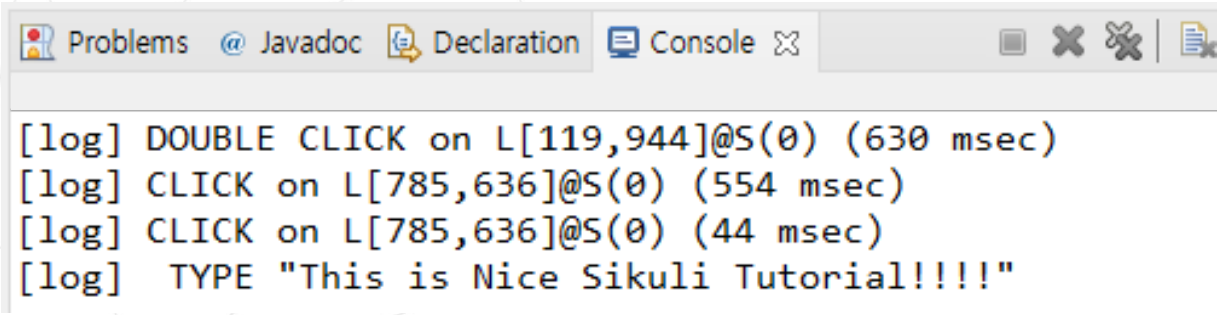
```
1  import org.sikuli.script.FindFailed;
2  import org.sikuli.script.Screen;
3
4  public class notepad {
5      public static void main(String[] args) throws FindFailed, InterruptedException {
6          String icon = "노트패드 아이콘 절대 경로";
7          String note = "노트패드 사진 절대 경로";
8
9          Screen s=new Screen();
10         s.find(icon);
11         s.doubleClick();
12         s.click(note);
13         s.type(note,"This is Nice Sikuli Tutorial!!!!");
14     }
15 }
16
```

SikuliX 실행

- 실행 시 화면

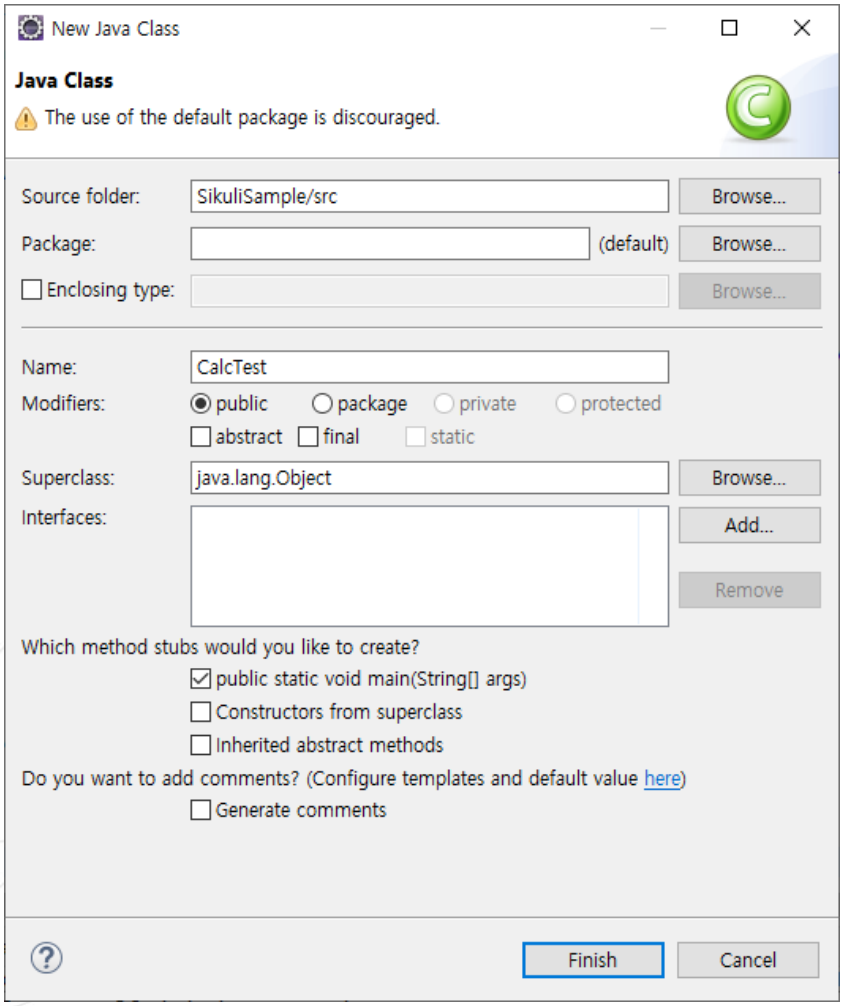


- 실행 시 Console



SikuliX 실행

- **src(right click) – New – Class – Finish**



SikuliX 실행

- **Input Code(ClacTest.txt 참조)**

CalcTest.java

```
1  import java.awt.Toolkit;
17
18 /* Automating Calculator Application. */
19 public class CalcTest {
20     Runtime rs = null;
21     Screen screen = null;
22     static CalcTest ct = null;
23     Map<String, String> calcButtonMap = null;
24     final String APPLICATION = "계산기 설치 폴더 절대 경로";
25
26     /* Initialization block */
27     {
28         calcButtonMap = new HashMap<String, String>();
29
30         String imagePath = "이미지 폴더 절대 경로";
31
32         calcButtonMap.put("0", imagePath + "0.PNG");
33         calcButtonMap.put("1", imagePath + "1.PNG");
34         calcButtonMap.put("2", imagePath + "2.PNG");
35         calcButtonMap.put("3", imagePath + "3.PNG");
36         calcButtonMap.put("4", imagePath + "4.PNG");
37         calcButtonMap.put("5", imagePath + "5.PNG");
38         calcButtonMap.put("6", imagePath + "6.PNG");
39         calcButtonMap.put("7", imagePath + "7.PNG");
40         calcButtonMap.put("8", imagePath + "8.PNG");
41         calcButtonMap.put("9", imagePath + "9.PNG");
42
43         // Operators
44         calcButtonMap.put("Add", imagePath + "Add.PNG");
45         calcButtonMap.put("Mul", imagePath + "Mul.PNG");
46         calcButtonMap.put("Div", imagePath + "Div.PNG");
```

SikuliX 실행

- 실행 시 화면

- 실행 시 Console