National College of Ireland

Configuration Manual

MSc Research Project
Cloud Computing

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Project Submission Sheet
School of Computing

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Configuration Manual

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1 IfogSim Set up

- To Simulate the Algorithm, IfogSim is used in this research. It needs to be downloaded using given link.[1]

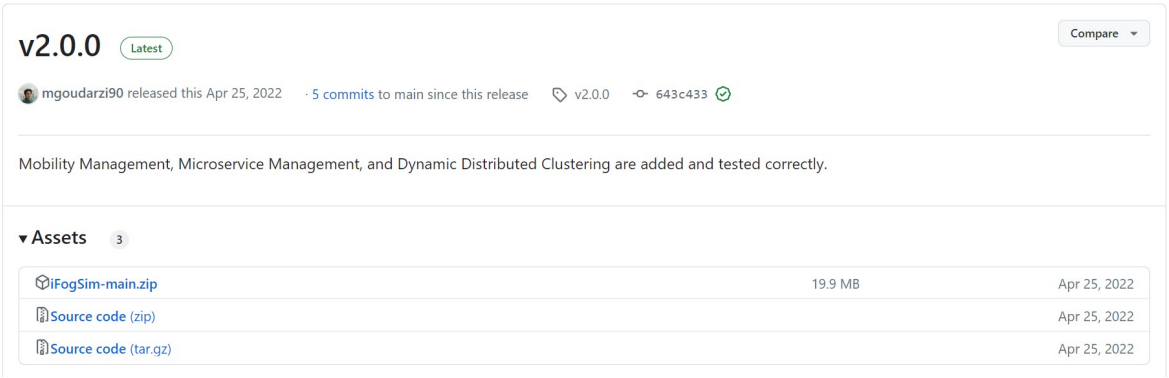


Figure 1: IfogSim download link

- Then we need to download the zip file from the link.
- Once it is downloaded then, We need to import it in the eclipse.

2 Eclipse Set up

- To execute the setup, we need to have the eclipse. It can be downloaded from the given link[2]
- Once it is downloaded, it can be installed as shown in Figure 3
- After the installation is done, we need to open the eclipse.
- Import the downloaded IfogSim folder It looks like below Figure 4
- Once the package is imported , create the new class in Perfeval package.
- After the class is created import the class from given git link as shown in Figure 5

[1] `https://github.com/Cloudslab/iFogSim/releases/tag/v2.0.0`
[2] `https://www.eclipse.org/downloads/`

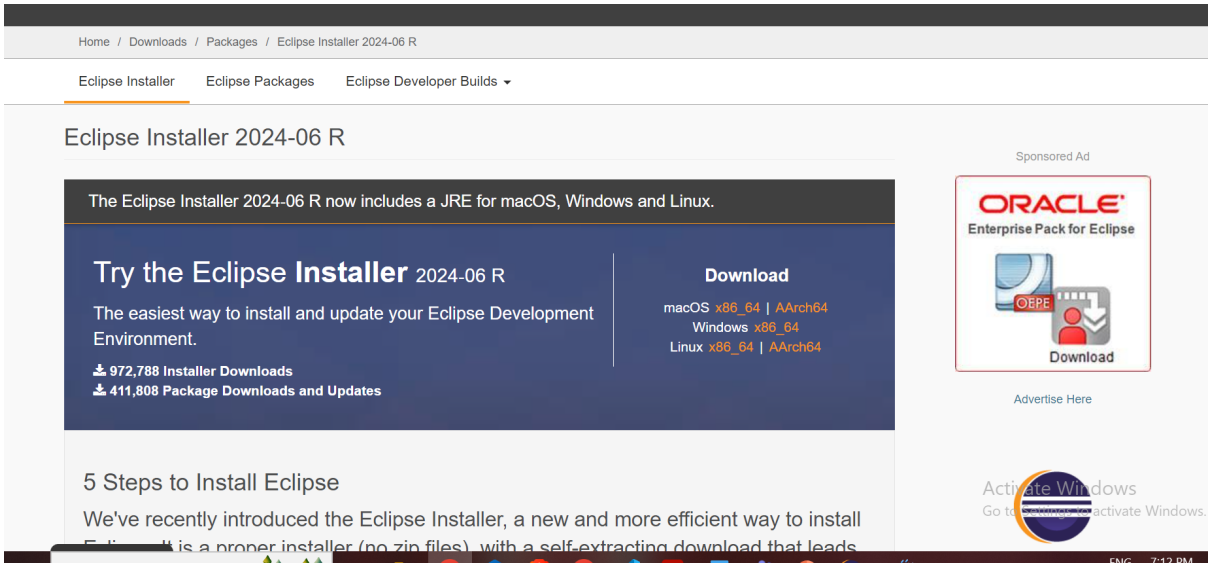
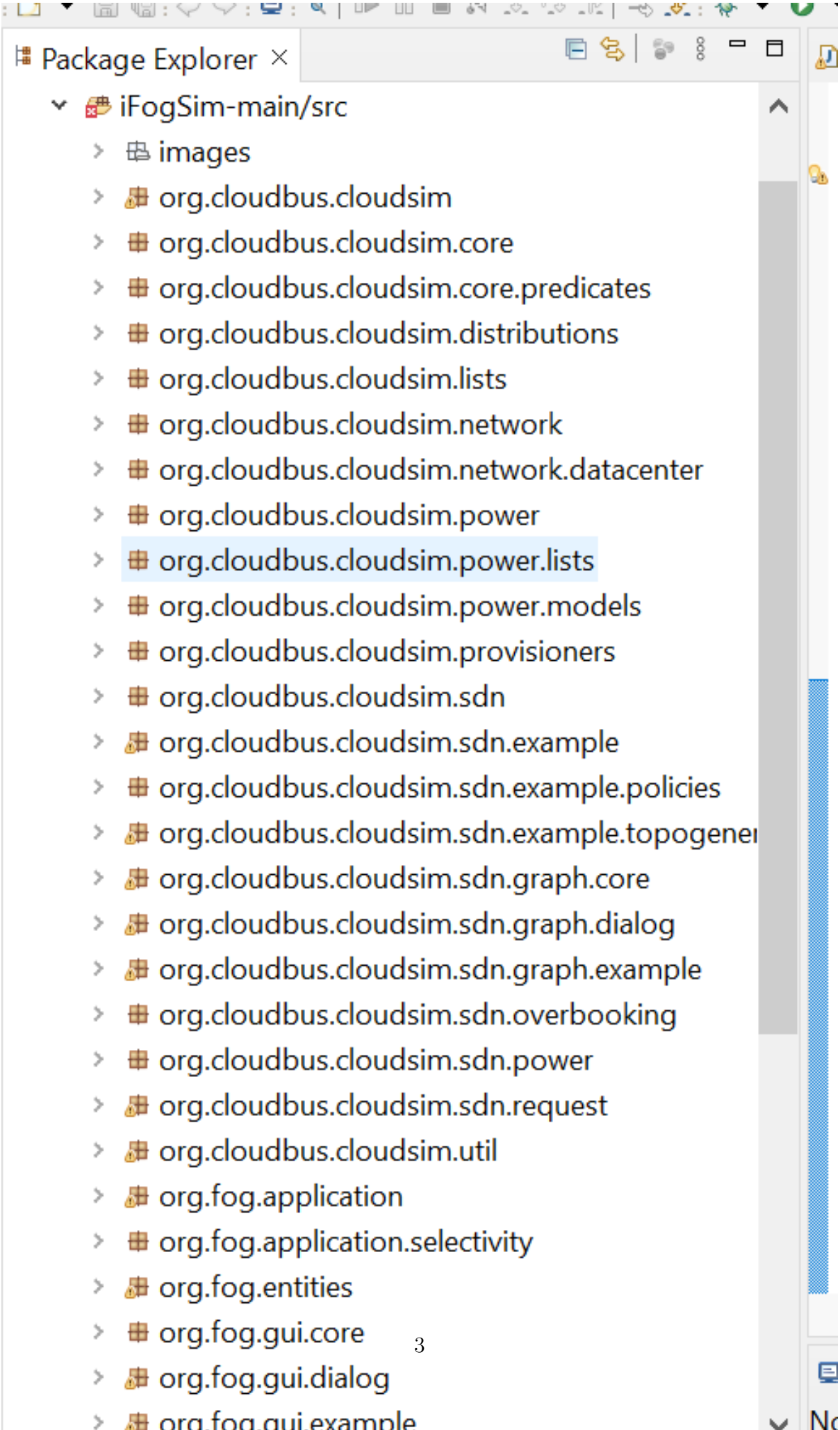


Figure 2: Eclipse download link

Figure 3: Eclipse


Package Explorer
iFogSim-main/src
images
org.cloudbus.cloudsim
org.cloudbus.cloudsim.core
org.cloudbus.cloudsim.core.predicates
org.cloudbus.cloudsim.distributions
org.cloudbus.cloudsim.lists
org.cloudbus.cloudsim.network
org.cloudbus.cloudsim.network.datacenter
org.cloudbus.cloudsim.power
org.cloudbus.cloudsim.power.lists
org.cloudbus.cloudsim.power.models
org.cloudbus.cloudsim.provisioners
org.cloudbus.cloudsim.sdn
org.cloudbus.cloudsim.sdn.example
org.cloudbus.cloudsim.sdn.example.policies
org.cloudbus.cloudsim.sdn.example.topogene
org.cloudbus.cloudsim.sdn.graph.core
org.cloudbus.cloudsim.sdn.graph.dialog
org.cloudbus.cloudsim.sdn.graph.example
org.cloudbus.cloudsim.sdn.overbooking
org.cloudbus.cloudsim.sdn.power
org.cloudbus.cloudsim.sdn.request
org.cloudbus.cloudsim.util
org.fog.application
org.fog.application.selectivity
org.fog.entities
org.fog.gui.core
org.fog.gui.dialog
org.fog.gui.example

```java
package org.fog.test.perfeval;

import org.cloudbus.cloudsim.*;


public class x22184804_thesis extends SimEntity {

    private static final int TIME_HORIZON = 10;
    private static final List<Job> JOBS = new ArrayList<>();
    private static List<FogDevice> fogDevices = new ArrayList<>();
    private static final boolean CLOUD = true;

    public x22184804_thesis(String name) {
        super(name);
    }

    public static void main(String[] args) {
        try {
            Logger.ENABLED = true;
            Log.printLine("Starting CAKS, RRAPX, and SRRAPX Simulation...");

            CloudSim.init(1, Calendar.getInstance(), false);

            initializeJobs();
            fogDevices = createFogDevices();

            x22184804_thesis caksSim = new x22184804_thesis("CAKS_Sim");
            caksSim.schedule(caksSim.getId(), 0, 0);

            Application application = createApplication();

            ModuleMapping moduleMapping = ModuleMapping.createModuleMapping();
```

Figure 5: Code

3 Execution

- Run the java command to get the output.
- Output is displayed as shown in given image6

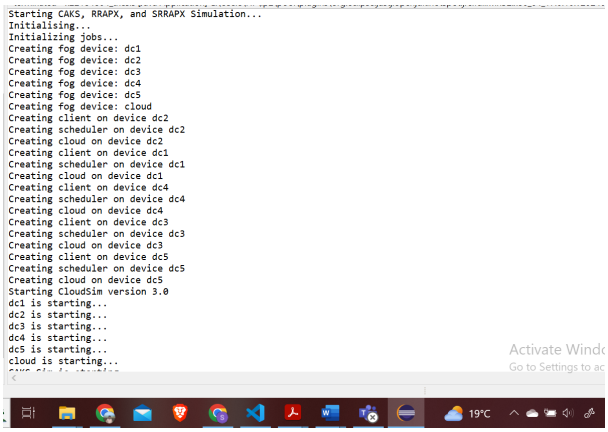


Figure 6: Ouput