



DEPARTMENT OF COMPUTER SCIENCE & ENGINEERING

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Experiment - 1.3

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Branch: BE-CSE

Semester: 6th

Subject Name: Cloud Computing and Distributed Systems

Subject Code: 21CSP-378

UID: 21BCS2856

Section/Group: KRG_CC_1 B

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1. Aim:

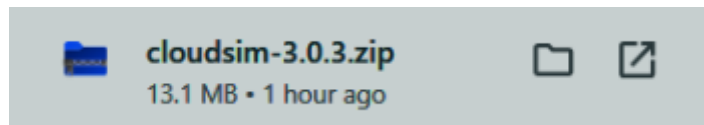
To install of Cloud Sim and IDE

2. Objective:

To install of Cloud Sim, run cloudsim example, include apache-commons math dependency in the program.

3. Steps to run:

Step 1: Download CloudSim from Github Repository at
<https://github.com/Cloudslab/cloudsim/releases>



Step 2 : Extract the zip file into the folder

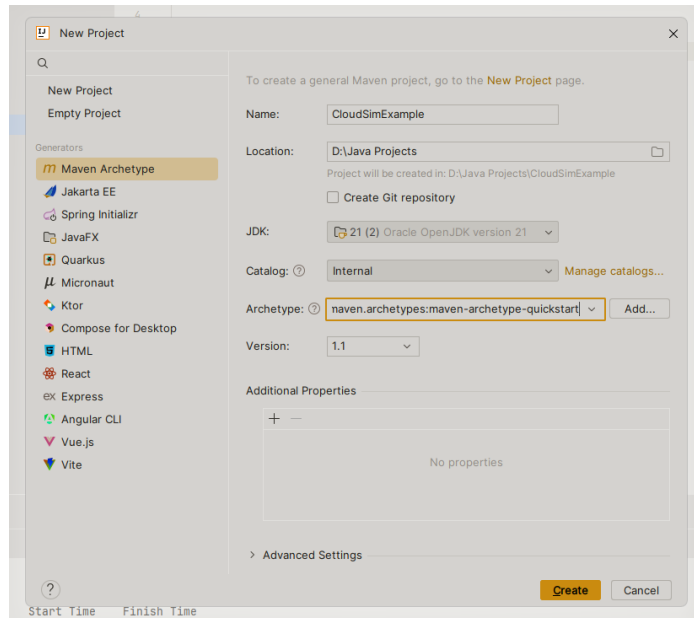
Step 3: Install IntelliJ IDEA

Step 4: Create a new maven project with the archetype: maven-archetype-quickstart

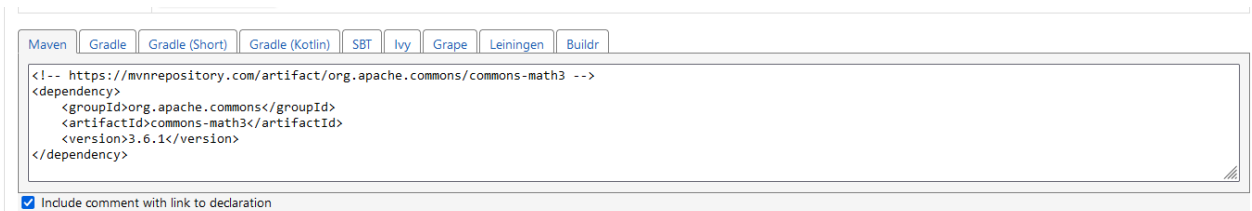


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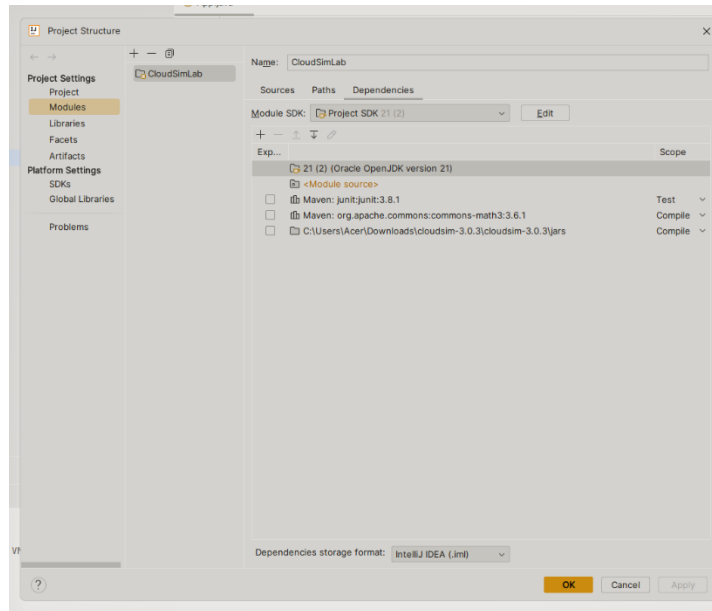
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Step 5: Add the Apache commons math dependency from
<https://mvnrepository.com/artifact/org.apache.commons/commons-math3/3.6.1>



Step 6: Add the cloudsim-3.0.1/jars folder in module path in IntelliJ IDEA



Step 7: Write the following code in a java file and run it

```
package io.github.navjotsrakhra;  
import org.cloudbus.cloudsim.examples.CloudSimExample1;  
public class App {  
    public static void main(String[] args) {  
        CloudSimExample1.main(args);  
    }  
}
```

Step 8: See the output if it was success



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```
"C:\Program Files\Java\jdk-21\bin\java.exe" "-javaagent:C:\Program Files\JetBrains\IntelliJ I
Starting CloudSimExample1...
Initialising...
Starting CloudSim version 3.0
Datacenter_0 is starting...
Broker is starting...
Entities started.
0.0: Broker: Cloud Resource List received with 1 resource(s)
0.0: Broker: Trying to Create VM #0 in Datacenter_0
0.1: Broker: VM #0 has been created in Datacenter #2, Host #0
0.1: Broker: Sending cloudlet 0 to VM #0
400.1: Broker: Cloudlet 0 received
400.1: Broker: All Cloudlets executed. Finishing...
400.1: Broker: Destroying VM #0
Broker is shutting down...
Simulation: No more future events
CloudInformationService: Notify all CloudSim entities for shutting down.
Datacenter_0 is shutting down...
Broker is shutting down...
Simulation completed.
Simulation completed.

===== OUTPUT =====
Cloudlet ID   STATUS   Data center ID   VM ID   Time   Start Time   Finish Time
0            SUCCESS    2                0       400     0.1         400.1
CloudSimExample1 finished!

Process finished with exit code 0
```

4. Learning Outcome:

- Learn how to install Cloudsim.
- Understand about how to use library jars.
- Understand how to add maven dependency for CloudSim.