

**Experiment No.: 08 Title: Cloud simulation using CloudSim**

**Batch: A3 Roll No.: 16010421119 Experiment No.: 08**

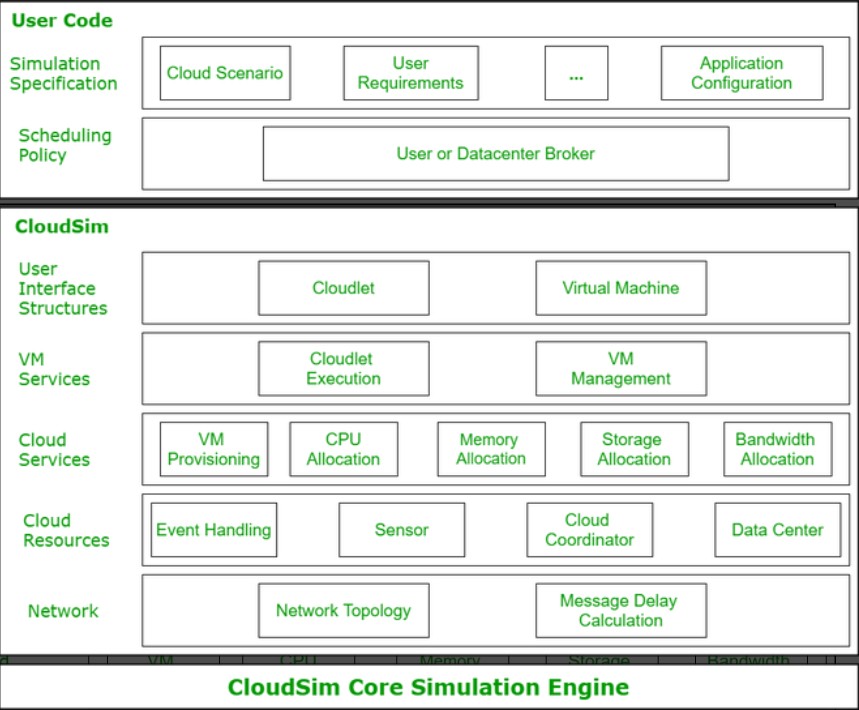
**Aim:** Cloud simulation using CloudSim

**Resources needed:** CloudSim Simulator

**Theory:**

CloudSim is a framework for modeling and simulation of cloud computing infrastructures and services. Originally built primarily at the Cloud Computing and Distributed Systems (CLOUDS) Laboratory,The University of Melbourne, Australia, CloudSim has become one of the most popular open source cloud simulators in the research and academia. CloudSim is completely written in Java.

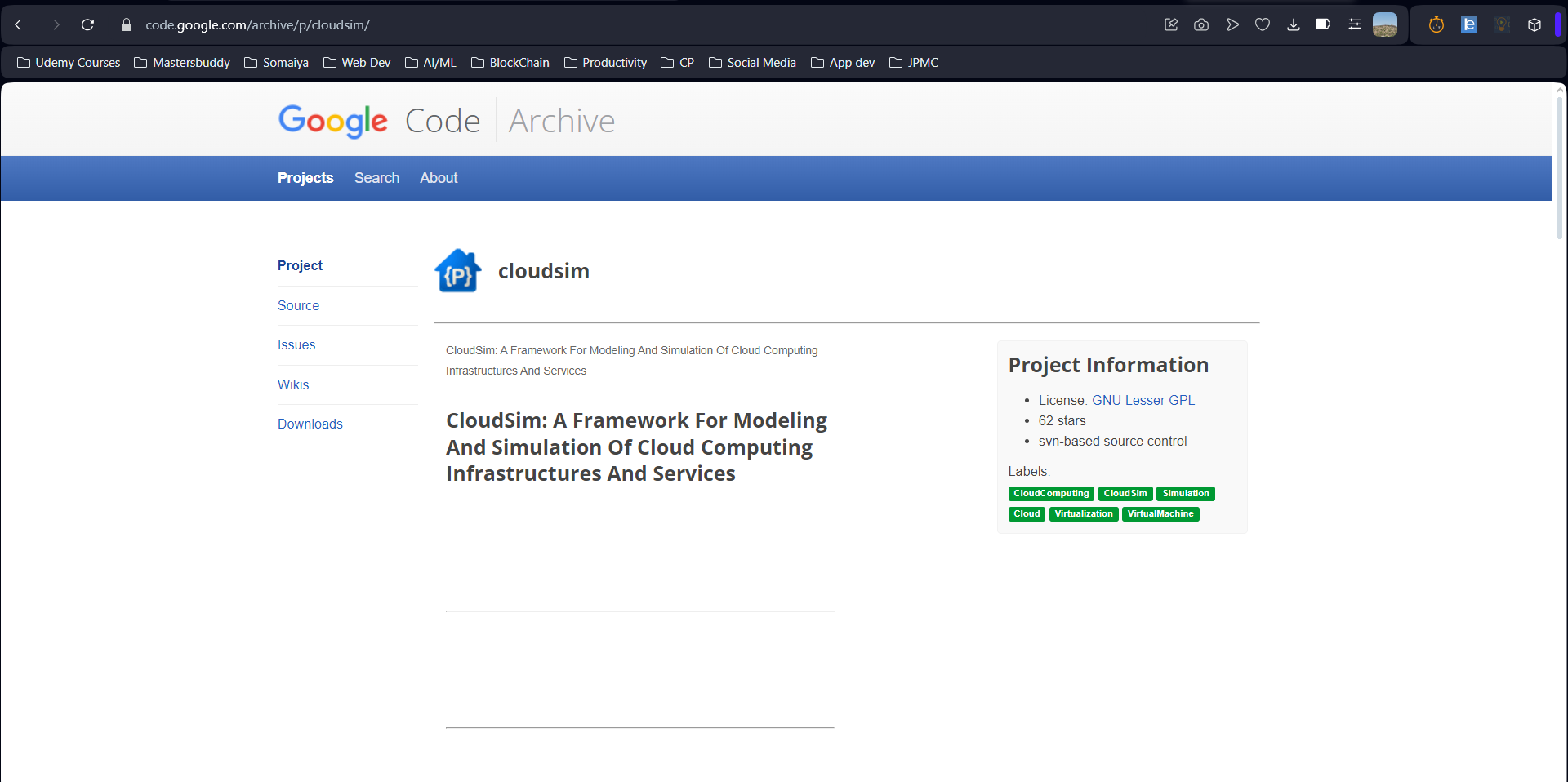
**CloudSim Architecture:**

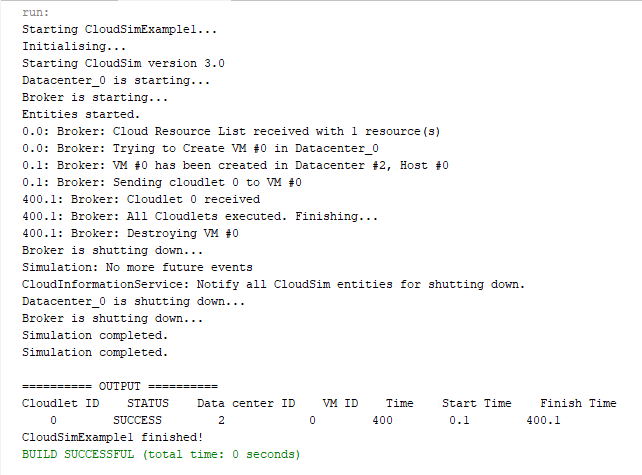
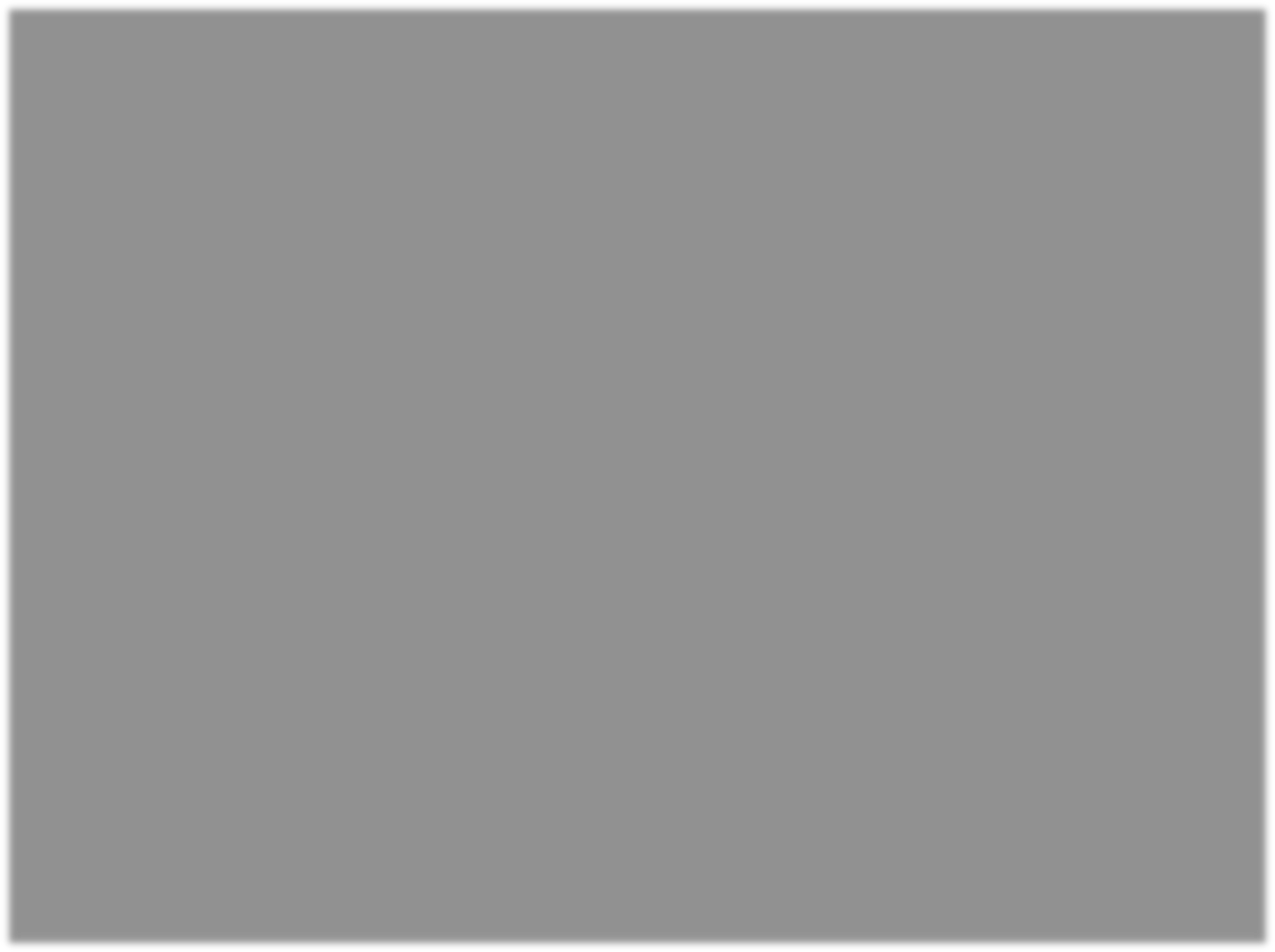


**Procedure:**

1. refer references [STEP BY STEP INSTALLATION OF CLOUD SIM INTO](https://researchcloudcomputing.wordpress.com/2015/01/11/step-by-step-ui-installation-of-cloud-sim-into-net-beans/) [NET BEANS](https://researchcloudcomputing.wordpress.com/2015/01/11/step-by-step-ui-installation-of-cloud-sim-into-net-beans/)
2. Run all the examples and observe the results.
3. Add more VM/ Cloudlets in any one example and observe the results.

**Results: (Steps with commands and screenshots)**

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**Questions: what are cloudlets?**

A cloudlet is a small-scale data centre located at the edge of the Internet to provide computing resources to mobile applications with lower latency. It is a newer architectural element of cloud computing infrastructure of a 3-tier hierarchy: mobile device or IoT hardware, cloudlet, cloud. The cloudlet concept is also known as mobile micro-cloud.

**Outcomes:**

CO3: Analyze different cloud architectures.

**Conclusion:**

In this Experiment, we installed cloudSim and completed the setup in NetBeans IDE and stimulated using examples.

**Signature of faculty in-charge with date**

**References:**

1. [**STEP BY STEP INSTALLATION OF CLOUD SIM INTO NET BEANS**](https://researchcloudcomputing.wordpress.com/2015/01/11/step-by-step-ui-installation-of-cloud-sim-into-net-beans/)[**https://researchcloudcomputing.wordpress.com/2015/01/11/step-by-step-ui-installation-**](https://researchcloudcomputing.wordpress.com/2015/01/11/step-by-step-ui-installation-of-cloud-sim-into-net-beans/)[**of-cloud-sim-into-net-beans/**](https://researchcloudcomputing.wordpress.com/2015/01/11/step-by-step-ui-installation-of-cloud-sim-into-net-beans/)
2. **CloudSim Example 1** [**https://www.youtube.com/watch?v=YYTrlyUYpRU**](https://www.youtube.com/watch?v=YYTrlyUYpRU)
3. [**http://www.cloudbus.org/cloudsim/**](http://www.cloudbus.org/cloudsim/)