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Roll No.: A-25

Section: A

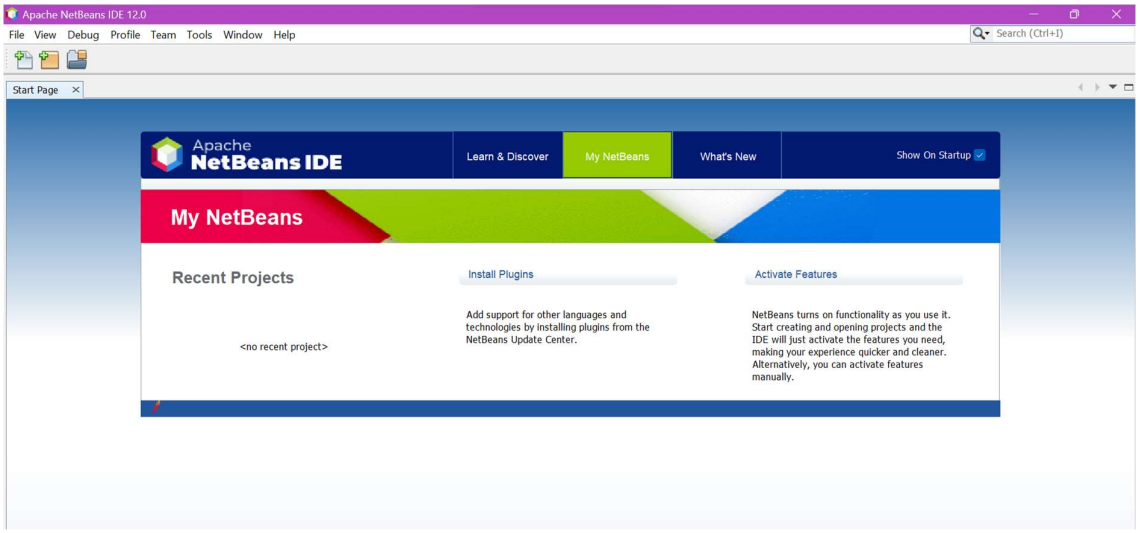
Semester: VII

Shift: I

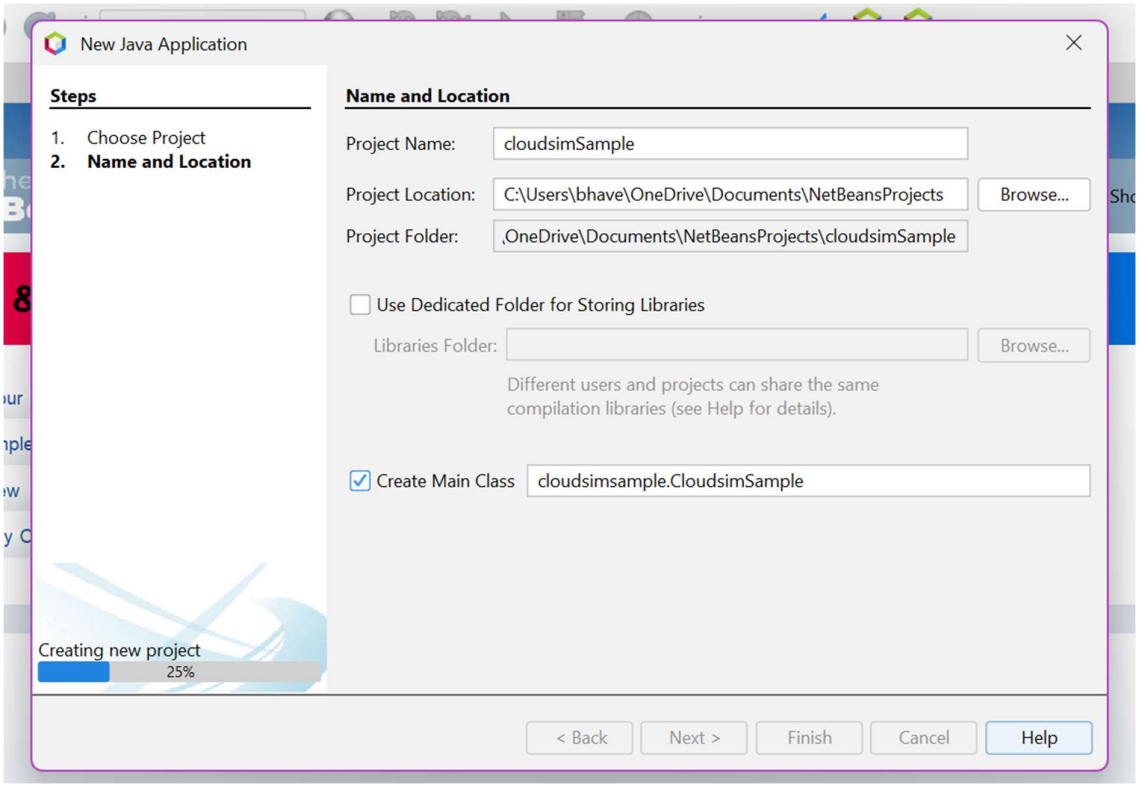
Batch: A1

Aim: Simulate a cloud scenario using CloudSim and implement programs for its modelling and simulation.

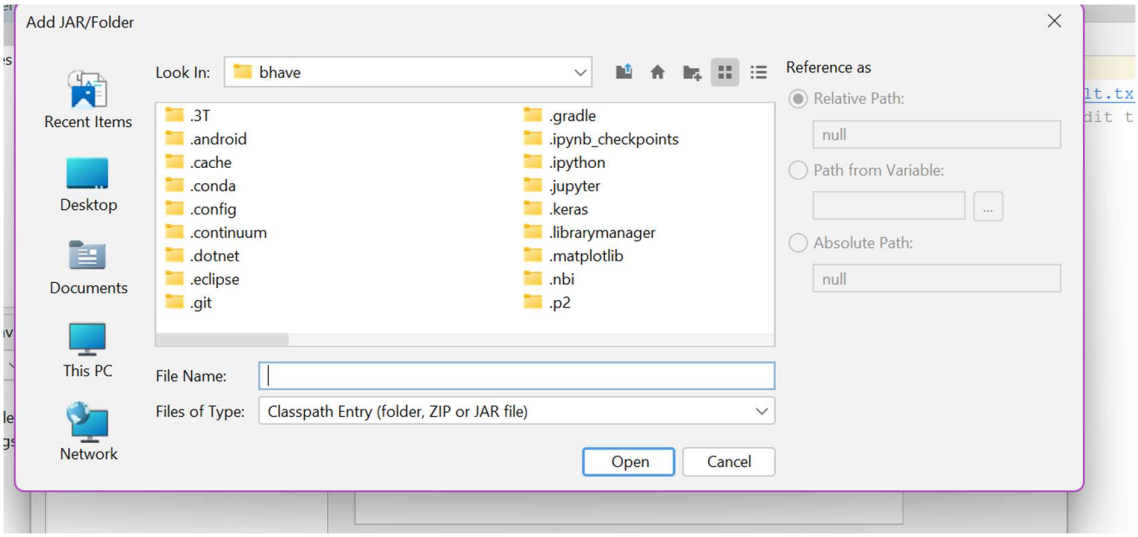
Outputs:



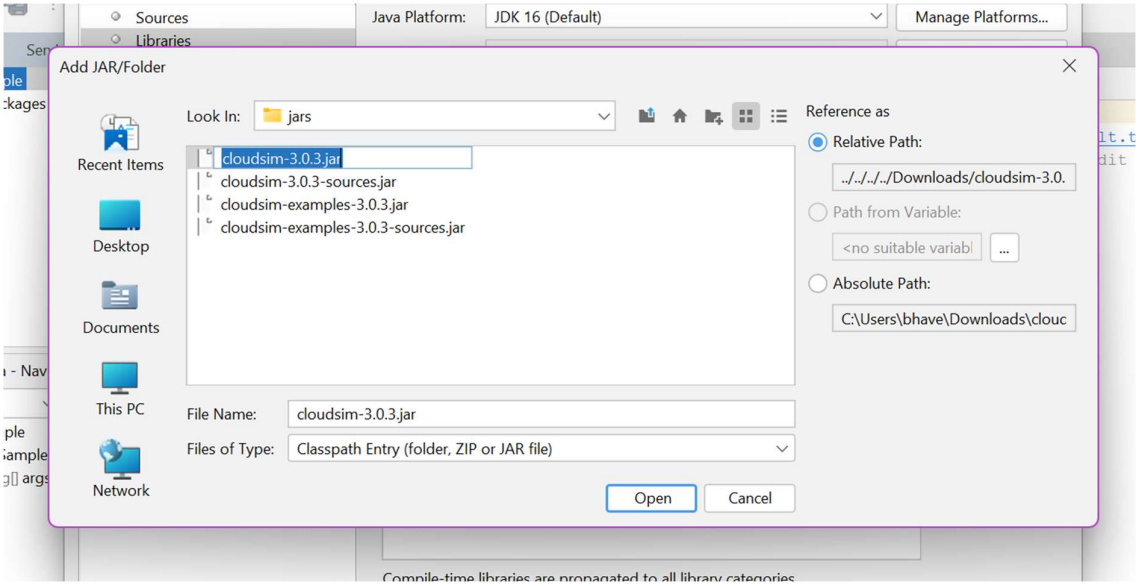
Install the NetBeans IDE from its official website. After installation, open it and it will look like the above image



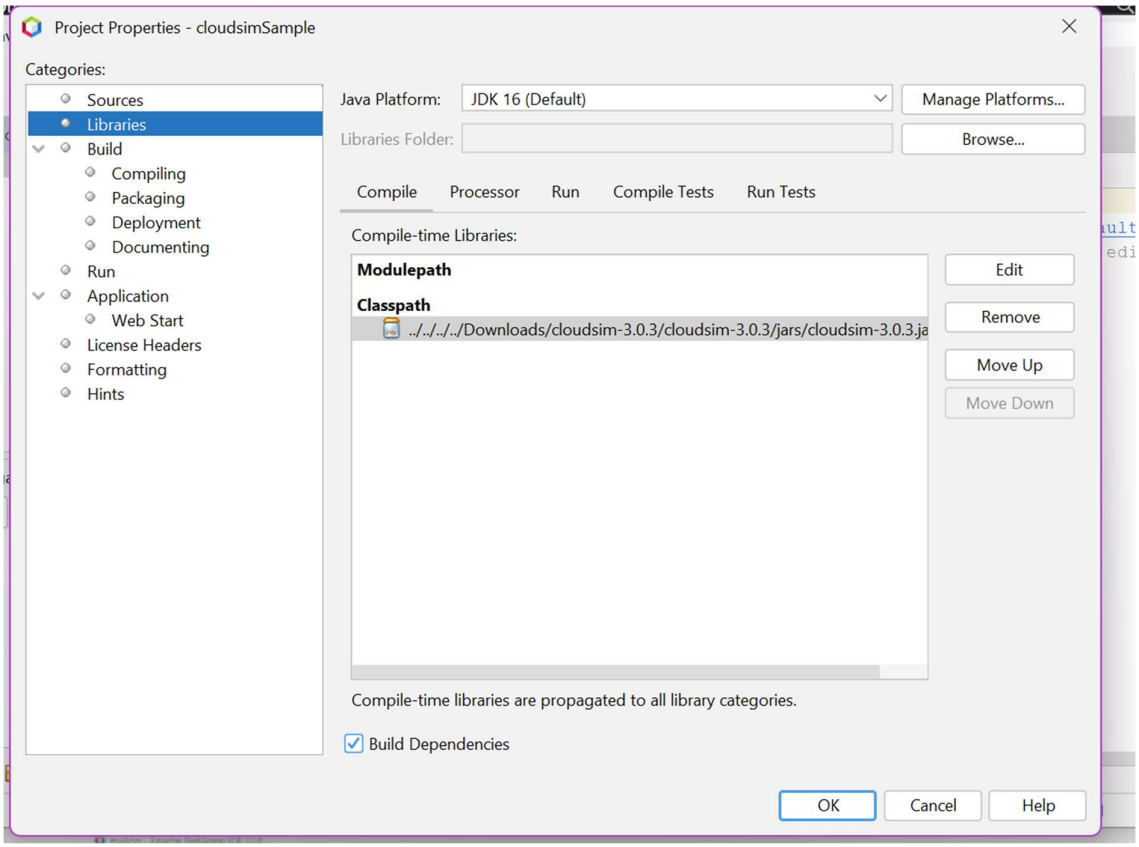
Create a new project in the IDE



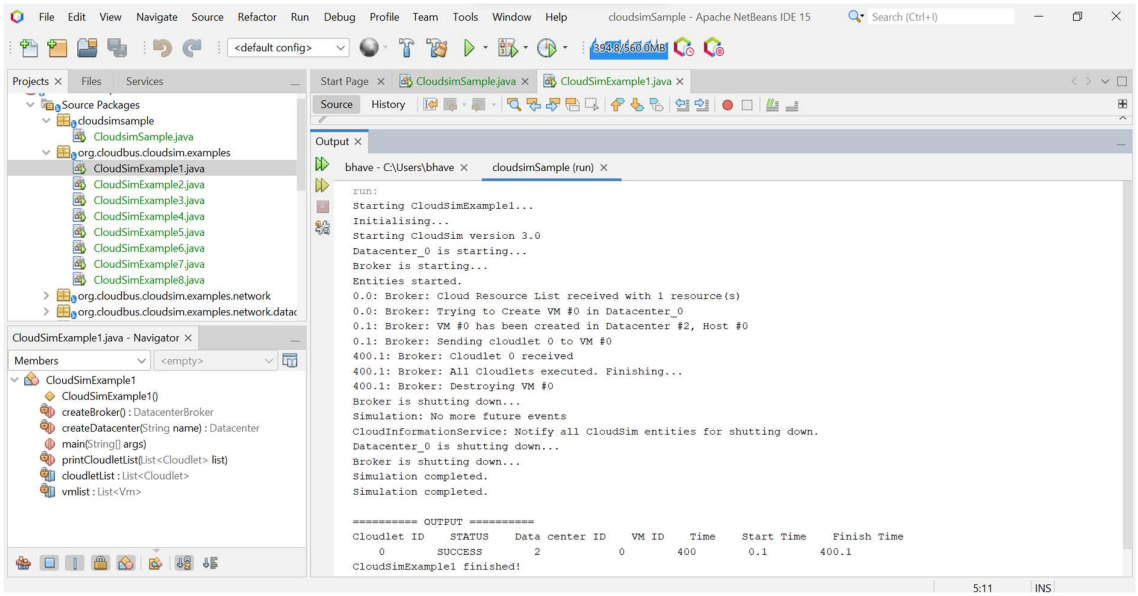
We now have to add the JAR folder of Cloudsim



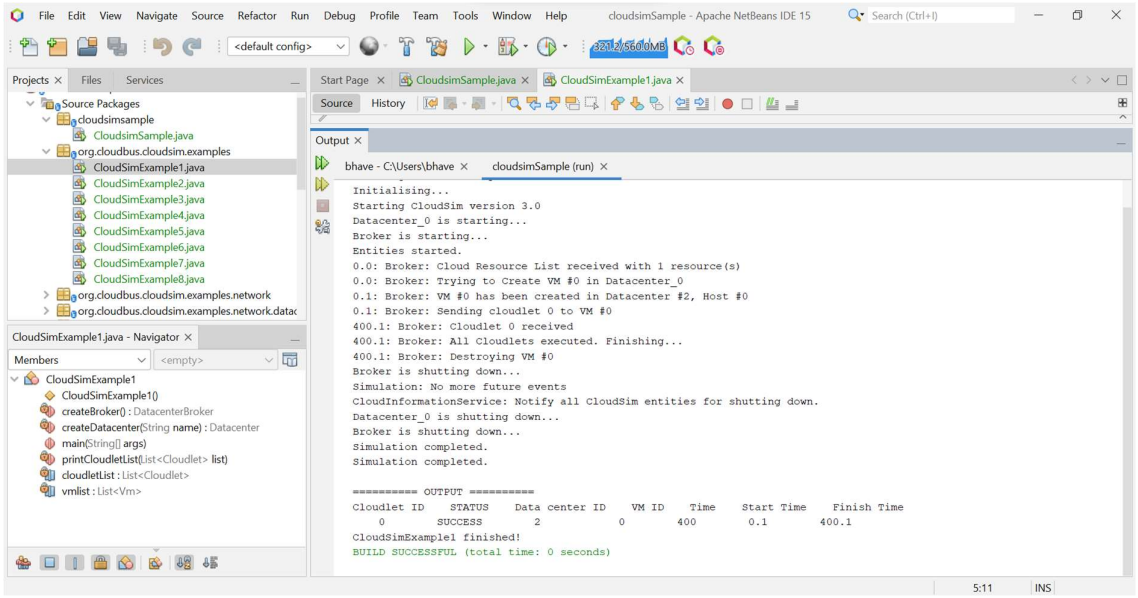
Navigate to the location and find the cloudsim-3.0.3.jar file



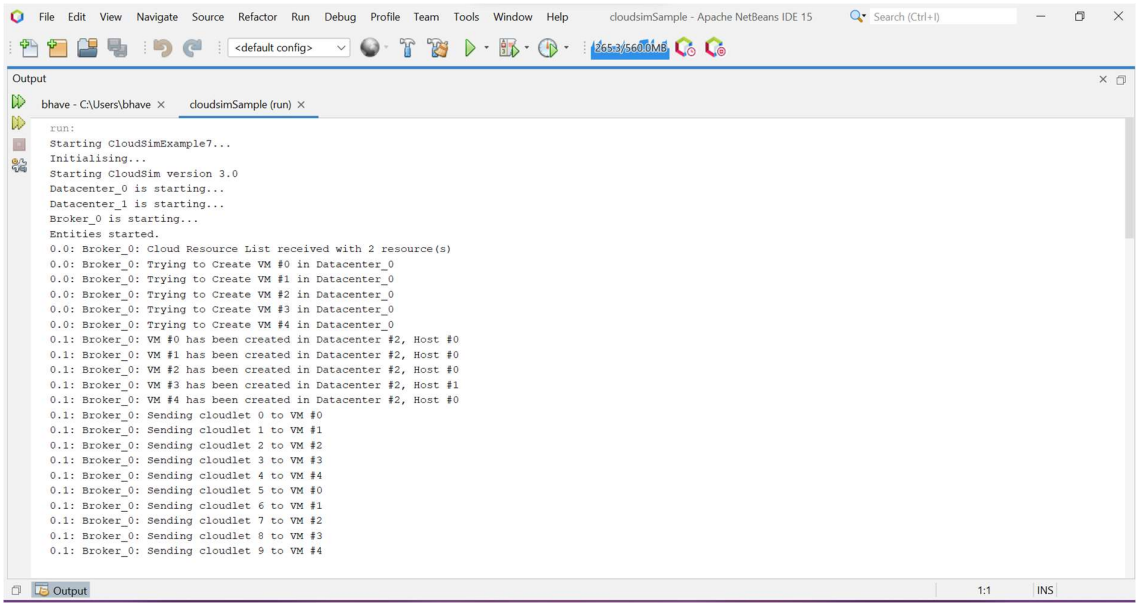
Add the file in classpath and then click ok



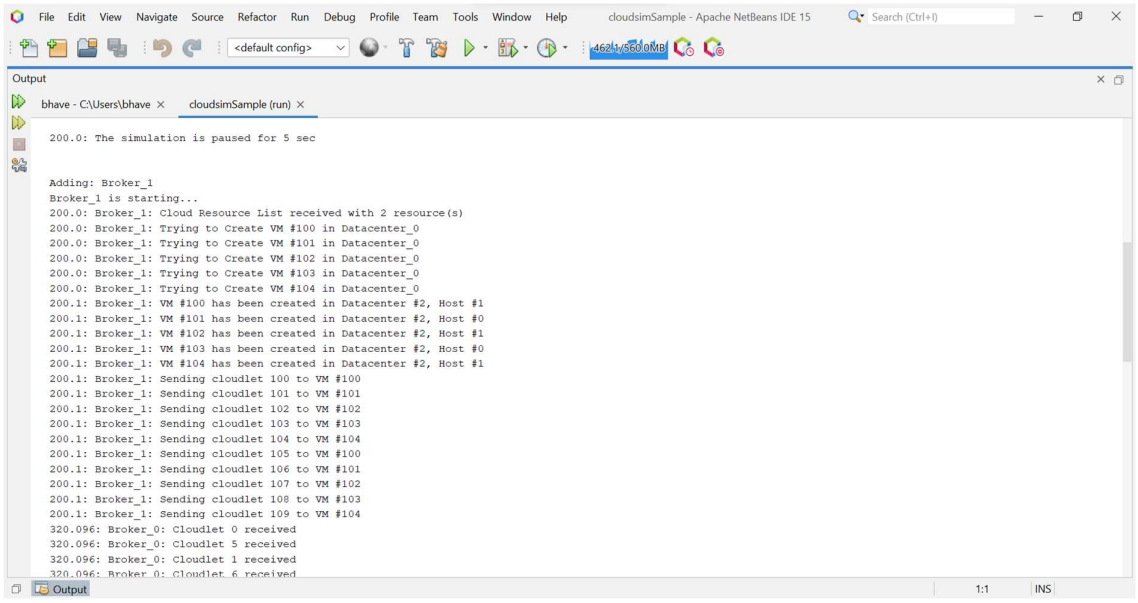
Open any example from the org.cloudbus.cloudsim.examples package and run it. You can see the output above



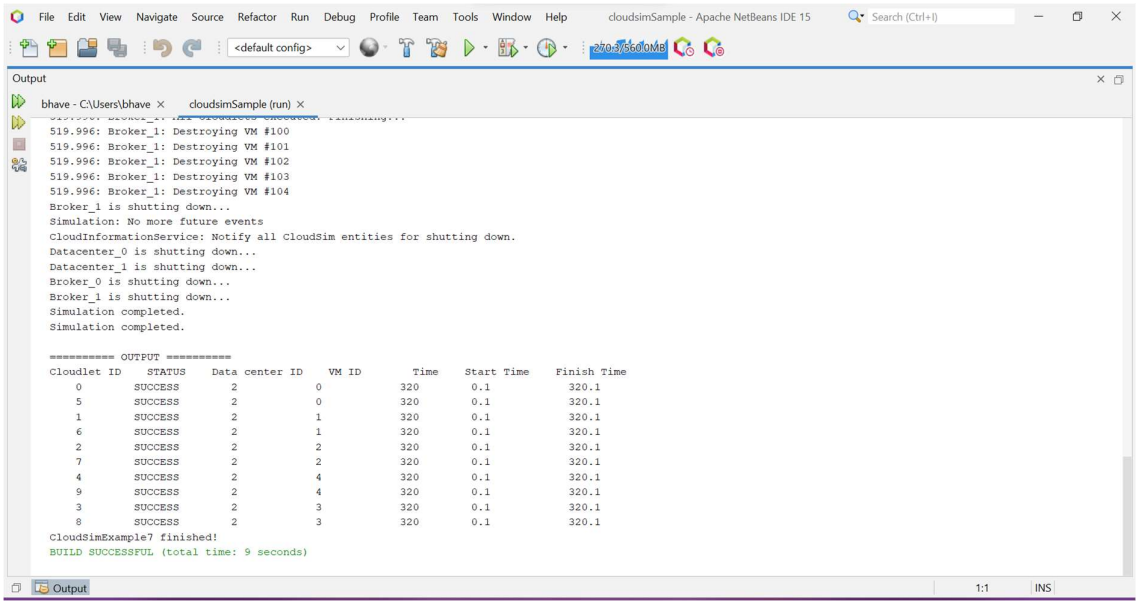
Here we have created a datacenter with all the required things and we now create a VM in it. We are simulating a cloud computing infrastructure and services. Here for example one 1 cloudlet has been created with VM Id 0. It also shows the how much time it took for creation



This is Example 7 and in this 2 datacenters have been created with 5 VMs and 9 cloudlets



The example shows the cloudlet sent to broker through different hosts



It shows all the details with required datacenter ID and VM Id

Conclusion:

CloudSim is a completely customizable tool that can simulate all parts of the cloud infrastructure making it suitable for testing different setups, algorithms, models and topologies in order to see the results, compare them and make improvements. Aft er reading this work we hope that the reader has a firmer understanding of processes that happen on the cloud and ways to create and test their own.