

## Experiment 2.1

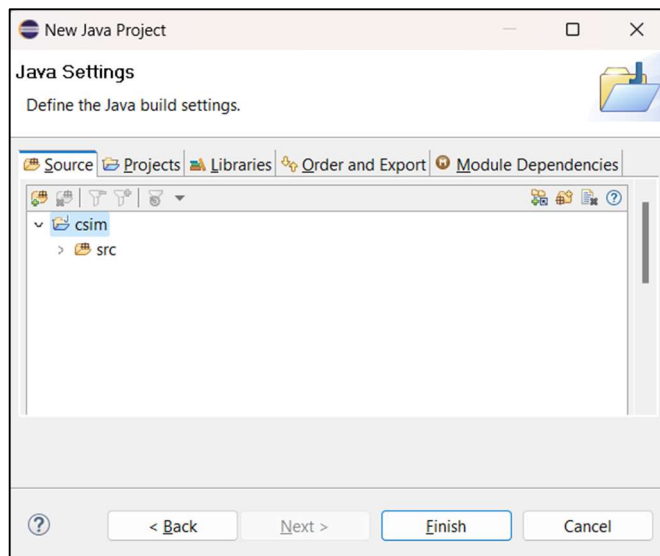
Student Name: Rohan Jaiswal  
Branch: CSE  
Semester: 6<sup>th</sup>  
Subject Name: Cloud Computing and Distributed  
Systems Lab

UID: 21BCS2856  
Section: 21BCS\_KRG-CC-1-B  
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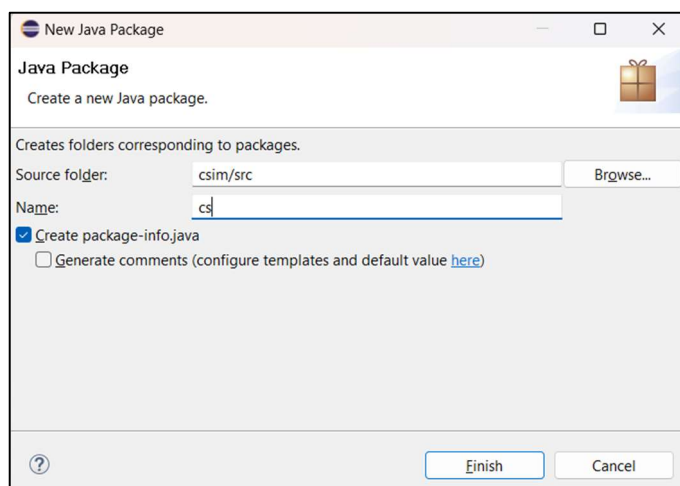
1. **Aim:** Simulate a cloud scenario using Matlab and run a scheduling algorithm.
2. **Objective:** Simulate a cloud scenario using Eclipse IDE and run a scheduling algorithm.

### 3. Procedure:

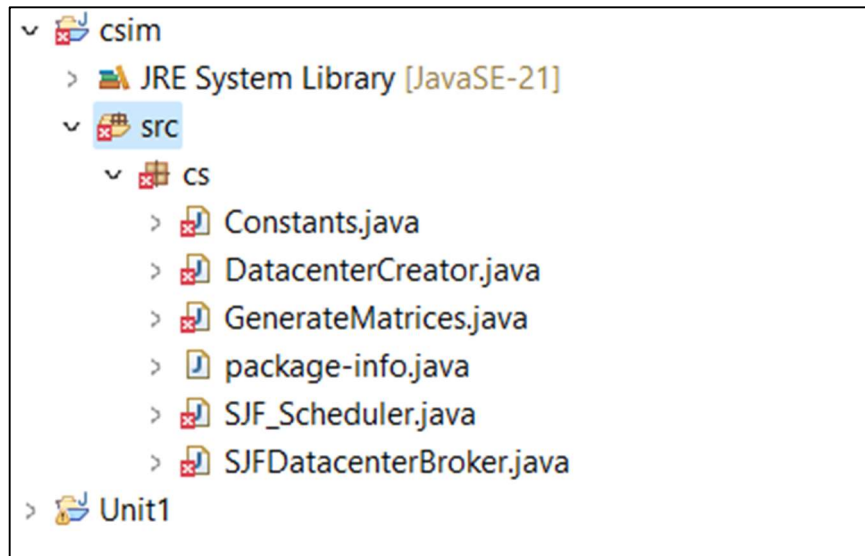
Step 1: Open Eclipse IDE create a new project.



Step 2: Create a new package and package-info.java

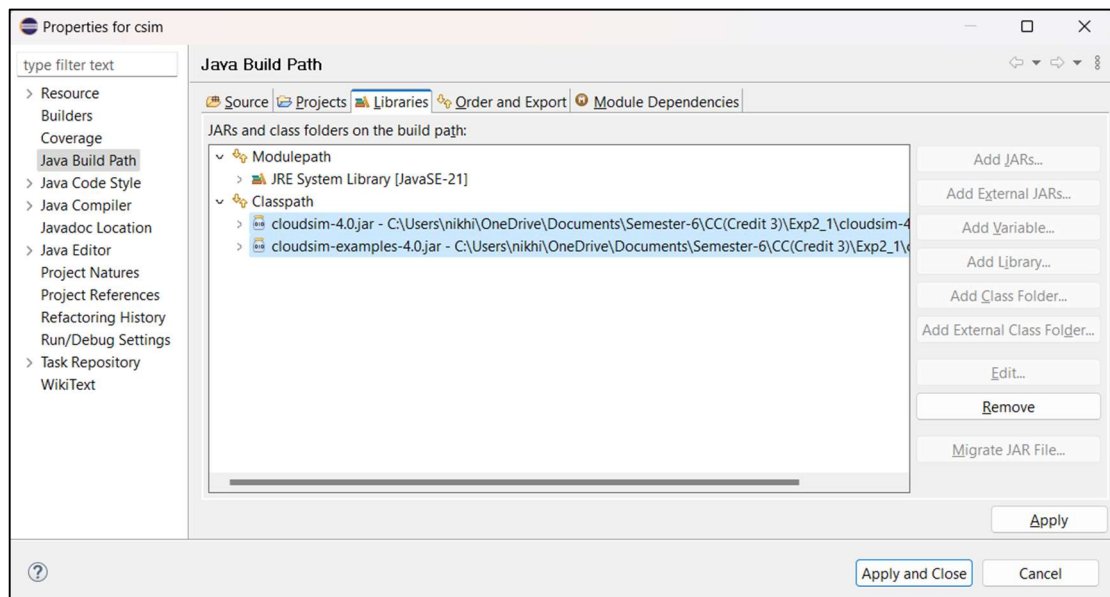


Step 3: Copy the five-configuration file and paste in the cs package.



Step 4: Now change package name to 'cs' in each configuration file.

Step 5: Now configure the Build Path by adding external JAR files in Classpath. External JAR files can be imported from cloudsim-4.0



Step 6: Now run the SJF\_Scheduler.java file as Java Application.

**Output:**

```
===== OUTPUT =====
```

Cloudlet ID	STATUS	Data center ID	VM ID	Time	Start Time	Finish Time	Waiting Time
01	SUCCESS	06	06	1045.61	00.1	1045.71	00
03	SUCCESS	05	05	2357.11	00.1	2357.21	00
07	SUCCESS	04	04	2973.96	00.1	2974.06	00
00	SUCCESS	03	03	3331.96	00.1	3332.06	00
02	SUCCESS	02	02	3345.3	00.1	3345.4	00
08	SUCCESS	04	04	391.41	2974.06	3365.46	2973.96
11	SUCCESS	03	03	345.45	3332.06	3677.51	3331.96
14	SUCCESS	03	03	328.95	3677.51	4006.46	3677.41
05	SUCCESS	06	06	3519.41	1045.71	4565.12	1045.61
10	SUCCESS	02	02	2273.4	3345.4	5618.8	3345.3
18	SUCCESS	03	03	1706.7	4006.46	5713.16	4006.36
04	SUCCESS	05	05	3456.06	2357.21	5813.26	2357.11
06	SUCCESS	06	06	2322.99	4565.12	6888.11	4565.02
17	SUCCESS	04	04	4193.08	3365.46	7558.54	3365.36
13	SUCCESS	02	02	2207.58	5618.8	7826.39	5618.7
28	SUCCESS	04	04	591.86	7558.54	8150.4	7558.44
20	SUCCESS	03	03	2665.28	5713.16	8378.44	5713.06
09	SUCCESS	06	06	2598.17	6888.11	9486.28	6888.01
12	SUCCESS	05	05	3723.96	5813.26	9537.22	5813.16
22	SUCCESS	03	03	2011.96	8378.44	10390.4	8378.34
21	SUCCESS	02	02	3381.24	7826.39	11207.63	7826.29
24	SUCCESS	03	03	1408.9	10390.4	11799.3	10390.3
19	SUCCESS	05	05	2328.96	9537.22	11866.18	9537.12
15	SUCCESS	06	06	2416.64	9486.28	11902.92	9486.18
25	SUCCESS	03	03	2159.26	11799.3	13958.56	11799.2
26	SUCCESS	02	02	2858.36	11207.63	14065.99	11207.53
16	SUCCESS	06	06	2370.33	11902.92	14273.25	11902.82
29	SUCCESS	02	02	812.97	14065.99	14878.96	14065.89
23	SUCCESS	05	05	3568.37	11866.18	15434.56	11866.08
27	SUCCESS	05	05	1908.32	15434.56	17342.88	15434.46

Makespan using SJF: 5182.862429194853  
cs.SJF\_Scheduler finished!

#### 4. Learning Outcomes

1. I have learnt about Cloud Computing Concepts.
2. I have learnt about Scheduling Algorithms used in cloud environments like Shortest Job First.
3. I have learnt Hands-on Experience with Simulation.