**CS2023 - Data Structures and Algorithms**

**In-class Lab Exercise**

Week 12

Name: A.A.H. Pramuditha

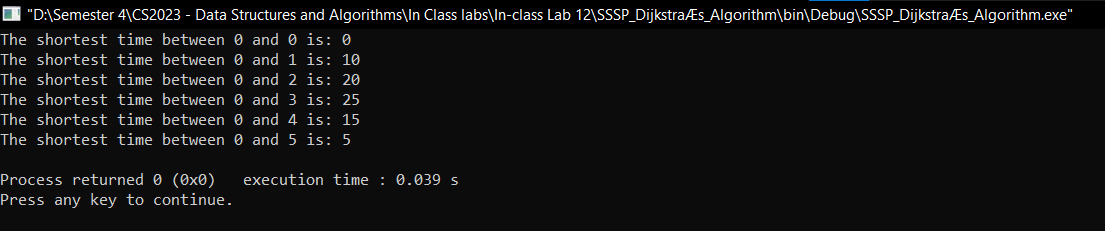
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**Question 1**



|  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- |
|  | **0** | **1** | **2** | **3** | **4** | **5** |
| **0** | 0 | 10 | 0 | 0 | 15 | 5 |
| **1** | 10 | 0 | 10 | 30 | 0 | 0 |
| **2** | 0 | 10 | 0 | 12 | 5 | 0 |
| **3** | 0 | 30 | 12 | 0 | 0 | 20 |
| **4** | 15 | 0 | 5 | 0 | 0 | 0 |
| **5** | 5 | 0 | 0 | 20 | 0 | 0 |



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* Average time for city 0: = 15
* Average time for city 1:
* Average time for city 2:
* Average time for city 3:
* Average time for city 4:
* Average time for city 5:

According to these calculated values, 1, 2, and 4 cities have the shortest average time for other cities. So, they are the most suitable cities to place the hospitals so that ambulances can reach other cities in a short time.

Link to the Git hub repository: [hashirupramuditha/CS2023---Data-Structures-Algorithms (github.com)](https://github.com/hashirupramuditha/CS2023---Data-Structures-Algorithms)