**Bari Arviv - 308537034**

**Tomer Shimshi - 203200480**

**Part A: Distance Tensor Computation**

**Question 1:**

נרצה לחשב את הssdd המבוקשים ( (1,2,2) (1,2,3) (2,3,0) (2,3,1)) אך ראשית נרשום את המטריצות הנתונות:

Left:

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| 5 | 4 | 3 | 2 | 1 |
| 10 | 9 | 8 | 7 | 6 |
| 15 | 14 | 13 | 12 | 11 |
| 20 | 19 | 18 | 17 | 16 |

Right:

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| 1 | 1 | 1 | 1 | 1 |
| 2 | 2 | 2 | 2 | 2 |
| 3 | 3 | 3 | 3 | 3 |
| 4 | 4 | 4 | 4 | 4 |

כעת עבור (1,2,2):

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| 5 | 4 | 3 | 2 | 1 |
| 10 | 9 | 8 | 7 | 6 |
| 15 | 14 | 13 | 12 | 11 |
| 20 | 19 | 18 | 17 | 16 |

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| 1 | 1 | 1 | 1 | 1 |
| 2 | 2 | 2 | 2 | 2 |
| 3 | 3 | 3 | 3 | 3 |
| 4 | 4 | 4 | 4 | 4 |

|  |  |  |
| --- | --- | --- |
| 4-1 | 3-1 | 2-1 |
| 9-2 | 8-2 | 7-2 |
| 14-3 | 13-3 | 12-3 |

^2=1+4+25+36+49+81+100+121=426·

כעת עבור (1,2,3):

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| 5 | 4 | 3 | 2 | 1 |
| 10 | 9 | 8 | 7 | 6 |
| 15 | 14 | 13 | 12 | 11 |
| 20 | 19 | 18 | 17 | 16 |

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| 1 | 1 | 1 | 1 | 1 |
| 2 | 2 | 2 | 2 | 2 |
| 3 | 3 | 3 | 3 | 3 |
| 4 | 4 | 4 | 4 | 4 |

|  |  |  |
| --- | --- | --- |
| 4-1 | 3-1 | 2-1 |
| 9-2 | 8-2 | 7-2 |
| 14-3 | 13-3 | 12-3 |

^2=1+4+25+36+49+81+100+121=426·

כעת עבור (2,3,0):

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| 5 | 4 | 3 | 2 | 1 |
| 10 | 9 | 8 | 7 | 6 |
| 15 | 14 | 13 | 12 | 11 |
| 20 | 19 | 18 | 17 | 16 |

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| 1 | 1 | 1 | 1 | 1 |
| 2 | 2 | 2 | 2 | 2 |
| 3 | 3 | 3 | 3 | 3 |
| 4 | 4 | 4 | 4 | 4 |

|  |  |  |
| --- | --- | --- |
| 10-2 | 9-2 | 8-2 |
| 15-3 | 14-3 | 13-3 |
| 20-4 | 19-4 | 18-4 |

^2=36+49+64+100+121+144+196+225+256 =895·

**Question 2:**

**Done.**

**Question 3:**

Done.

**Question 4:**

**Question 5:**

Done.

**Question 6:**

Graphical user interface

Description automatically generated

**Question 7:**

**Part B: Dealing with outliers**

**Question 8:**

**Question 9:**

**Question 10:**

**Question 11:**

**Question 12:**

**Part C: Panorama creation**

**Question 13:**

**Question 14:**

**Question 15:**

**Question 16:**

**Question 17:**