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Subject : Data Structure and Algorithms

Assignment 4

Question 1

```
PS C:\IIITS ASSIGNMENTS\Sem 2\Data Structure And Algo\Assignment 4> cd "c:\IIITS ASSIGNMENTS\Sem 2\Data Structure And Algo\Assignment 4\" ; if ($?) { gcc S2023001
0193_A4.c -o S20230010193_A4 } ; if ($?) { .\S20230010193_A4 }
enter size of Sparse matrix_1 n1: 3
Enter the elements in Sparse matrix_1:
0
0
2
0
1
6
1
1
3

enter size of Sparse matrix_2 n2: 2
Enter the elements in Sparse matrix_2:
0
0
3
1
1
8
```

Question 2

```
PS C:\IIITS ASSIGNMENTS\Sem 2\Data Structure And Algo\Assignment 4> cd "c:\IIITS ASSIGNMENTS\Sem 2\Data Structure And Algo\Assignment 4\" ; if ($?) { gcc S2023001
0193_A4.c -o S20230010193_A4 } ; if ($?) { .\S20230010193_A4 }
Enter Movies(M) , Cities(R) , people(N):2 2 3
enter the data of ratings of 1 to 5 (or zero if they have not seen it)
enter data for movie 1 and city 1:
4
3
0
enter data for movie 1 and city 2:
5
4
2
enter data for movie 2 and city 1:
3
4
1
enter data for movie 2 and city 2:
3
2
1
Average Rating of Movie over all cities and people:
Average Rating of movie 1 is 3
Average Rating of movie 2 is 2
PS C:\IIITS ASSIGNMENTS\Sem 2\Data Structure And Algo\Assignment 4>
```

Question 3

```
PS C:\IIITS ASSIGNMENTS\Sem 2\Data Structure And Algo\Assignment 4> cd "c:\IIITS ASSIGNMENTS\Sem 2\Data Structure And Algo\Assignment 4\" ; if ($?) { gcc S2023001
0193_A4.c -o S20230010193_A4 } ; if ($?) { .\S20230010193_A4 }
enter the size of array: 13
Enter the values in array:
2
5
7
8
4
6
3
2
9
1
8
4
3
Enter the value of i and j for which you what value of A[i,j] :2 1
using your entered tri-diagonal regular sparse matrix array the created tridiagonal matrix :
2 5 0 0 0
7 8 4 0 0
0 6 3 2 0
0 0 9 1 8
0 0 0 4 3
Value at i,j is A(i,j) = 6
PS C:\IIITS ASSIGNMENTS\Sem 2\Data Structure And Algo\Assignment 4>
```