CO21BTECH11002

Aayush Kumar

Assignment 2

Algorithm :-

1. Input nxn matrix.
2. In the function ‘determinant’ enter the matrix and n.
3. For j = 0 to j = n-1, create a new matrix which will be the minor of element matrix[0][j].
4. determinant(matrix, n) =
5. After every function call size of matrix which is passed in the function is reduced by 1.
6. When n = 2, return matrix[0][0]\*matrix[1][1] – matrix[0][1]\*matrix[1][0]. This will be the base case of our recursive algorithm.

Input :-

matrix = 9 0 8 6 1 4 2 6 8 8

4 4 0 5 6 5 7 2 4 5

4 8 6 4 9 9 3 2 0 5

7 9 7 5 5 8 9 9 5 9

7 1 3 7 6 2 3 4 4 9

9 0 9 5 4 9 6 0 3 6

5 0 5 2 6 2 2 5 4 9

5 1 0 0 1 7 2 6 1 8

7 0 9 6 8 5 7 4 5 0

3 0 1 0 4 7 5 9 4 9

Output :-

Determinant = 249549360

Time Taken :-

0.111s