write a c/c++ Program to do the following pass the matrices as parameters in all programs. 1) Matrix addition (Sul 2) Mutix dultiplication s) Sum of Principal diagnal / Non Priverple diagonal. 4) Sum of rows & Columns. s) transpose of a given matrix. 6) Check if the given matrix is symmetric or not 80/4 Hinclude = Stdis. hs H define MAX Syc 100 usid Emport Med six (ind matrix [MAX-Size][MAX-Size], into sous, intel] Print ("Enter the elements of the Authix: \u"); 608 (intj=0; j 60018; j++) { 8 canf ("/-d", d matrix [i][3]); uoid Point Matrix (int matrix [max-size][max-size], int rows, Point & ("Matrix ", \"); for (inti=0; icrows; i+1) { for (ind ; =0; ; < 615; j+1) (Print & (a -/. d", matrix [i][j]); 3 Prode (" In");

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Void add Matrices (int Medrix | [MAX 813 Ellunx - Stars, int cols ) of ration
      [MAX-SIZE][MAX-SIZE], int bows, int cols ) of
       INT result [MAX SIZE][MAX-SIZE];
         for (int i =0; cc 80105; i++) {
         for (ind 5=0; j < 618; j++) (
           Soult [i][s]=matrix [i][s]+ matrix [i][s].
   3 Print ( Addition of matrices: \");
      Print matrix (result, 8003, Gols),
void Substract oratrices (int mutaix 1 [MAX-SIZE] [MAX-SIZE]
                     int madrix 2 [max-SIZE] [max-SIZE], into
                   ind cols) f
  int result [MAX-SIZE][MAX-SIZE];
    for (int i=0; ix 8003; i++) (
       for (ind j=0; j<(618; j++){
       rout [i][j] : Madrix [i][j] + Medrix 2 [i][j];
  Print ( " Substraction of autrices: \u");
Print Matrix (result, rows, cols);
void 3usstract matrices (int matrix 1, int sows, ind cols) {
  int rould [MAX-SIZE] [MAX-SIZE];
   for Cinties; it rooms; ittl &
    for (ind j =0',j <6018;j++)&
       desired [i][j] = matrix [i][j] - multix 2[i][j]
   3
  Print 1" But of acutico: (4)
  Print authix (roult, vous, cols)
```

```
t ration 2
          wid hultiply matrices ( int married
               if [ Cols 1 1 = 80 to 2 )]
            Point ((" Exxod: madrices connot be Multiplied. (");
              return;
           ind result [MAX-STRE] [MAX-STRE];
             for (int 2 =0; (L dows 1, i++) {
               for (ind's =0; j<6182; )++){
3];
                    result [1][]=01
                 for (int k =0) K < G(51 ; K++) {
                 DOUBLE [1][5] += mudtix [1][1] + mudrix 2 [K][5];
-SIZE]
gras his, [3
            print (" multiplication of dutinices in");
            print redrik (Desult, rows 1,682);
           void Sun Diagnol Non Diagnol (int dutix, int rows jut 618, chap Chaice)
             just Sum =0",
             if (choice == 10'll choice = 'd') {
                for (int 1:0; 16 8008; itt) {
                 Sum + = medrix [i] [i];
             Print ( (" Sun of diagnol elevants: -/ed \ui, 3um)
             delse if (choice = N' 11 Choice = thi) {
                608 ( jud ( = 0 ; ( < 80 WS ; iH) }
                  for (ids =) ; scals; sty) {
                         if (i1=3)2
                         Sum to matrix [13(3);
```

Print ("Sum of non diegnol elements, xd(", Swy) ink is Symmetrice Printle ("Suralid Choice. Please enter Dos W. \n"); word Sun Rows Columns (int matrix [MAX. SIZE][MAX-SIZE], into geturn 1; int dow Sum [max-SIZE]= { 0 }; int cole) {
int colsum [max-SIZE] = { 0 }; int main () { int choice; Prut B (" Mad x x for (inti-6; icrows; it+){ Point ("1. Add for (intj=0, j< Cle, j++)(Port 6(2. Sul tow Sun [i] 12 metric (i] [i]) print ("3. dul Colsum []] += matrix [i][]], Print 6 ("4. 3" Print 6 (5. 34 & PHULL ("Sum of Rows: In"), Print 61 "6. -Box (ind 1=0; 1 28000; 1+1) { Printblu7. Printle " 54 Prind & (aRow 1.d : x.dlu", i + 1, 800 Sum [i]) Stanf (" Printle ("Sum of Columns: hi"); Pos (id j = 0; j < 64; j++) (int rows, Point ("Column 1.d: Y-d hu, i +1, colsum [i]), Paid (" Slavel (3 void transposedutions (intheatorix, rows, cols) { Prida int toursposed [auax-SIZE] [MAX-SIZE]; Stan for (int 120; i = 80005; i++ 18 6.8 (intj:0; 3(618; 3++) [transposed [i] [i] = meatrix [i][i] Part 6 (" Joans posed matrix: (m") Point matrix (transposed lale to

jut is Symmetric Class much Com Charles Street Asset Ass if (80005 1 = cole) E returno; (Tos] 14 Los] to La 30) was Liev 26], intray [00] to [00] tot [00] tot [00] tot [00] geturn 1; ind main (){ int choice; put B (" Matrix operations: \"); Poutb ("1. Addition ("); Prot 6(2. Sub(u") prid ("3. dultiplication ("); Pruth ("4, Sum of diagnol or now dragnol element ("), Printb ("5. Sum of rows & column ("); Printfl"6. Transpose of motion (m); Printfl"7. Chade if madric is Symmetriction), Printle " Enter your choice; "); (++, +> 3 - at 5 4 1) rot Stanf ("Y.d", & Choice);. int rows, Cols; bullions and the constant Paul ("Enter the ho of rows inthe matrices"); Slave ((47-d", 180ws), Print of " Enter the no of columns in the madrice : "); Scan f (" Yid", a cols); 31-2= (24-4) 14/6/23 [mile] (Herens + mit Lecro) [televis] - Listy-in