

• Matric 3 x 3 multiplication

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#include<iostream>
using namespace std;
int main() {

    int ma1[3][3] = { {1,2,3},
                      {4,5,6},
                      {7,8,9} };
    int ma2[3][4] = { {3,2,1},
                      {6,5,4},
                      {2,0,3} };

    int resultMatrix[3][3];
    // Perform multiplication
    for (int i = 0; i < 3; i++) {
        for (int j = 0; j < 3; j++) {

            resultMatrix[i][j] = 0;

            for (int k = 0; k < 3; ++k) {
                resultMatrix[i][j] += ma1[i][k] *
                ma2[k][j];
            }
        }
    }
    // Display matrix 1
    cout << "\n Matrix 1 " << endl;
    for (int i = 0; i < 3; i++) {
        for (int j = 0; j < 3; j++) {
            cout << ma1[i][j] << " ";
        }
        cout << endl;
    }
    // Display matrix 2
    cout << "\n Matrix 2 " << endl;
    for (int i = 0; i < 3; i++) {
        for (int j = 0; j < 3; j++) {
            cout << ma2[i][j] << " ";
        }
        cout << endl;
    }
    // Disply result
    cout << "Result of Matrix Multiplication:" << endl;

    for (int i = 0; i < 3; i++) {
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        for (int j = 0; j < 3; j++) {
            cout << resultMatrix[i][j] << " ";
        }
        cout << endl;
    }
}

```

• Add , Sub , Union , intersection

```

#include<iostream>
using namespace std;
int main() {
    const int size = 4;
    int SetA[4], SetB[4];
    int Add, Sub, Intersect, Union;
    // take value from user
    cout << "Enter the Value of Set A" << endl;
    for (int i = 0; i < size; i++) {
        cin >> SetA[i];
    }
    cout << "Enter the value of Set B" << endl;
    for (int i = 0; i < size; i++) {
        cin >> SetB[i];
    }
    cout << "\n";
    // Addition perform
    cout << "Addition(A + B) is:" << endl;
    for (int i = 0; i < size; i++) {
        Add = SetA[i] + SetB[i];
        cout << Add << "\t";
    }
    cout << "\n" << endl;
    // subtraction perform
    cout << "Subtraction(A-B) is:" << endl;
    for (int i = 0; i < size; i++) {
        Sub = SetA[i] - SetB[i];
        cout << Sub << "\t";
    }
    cout << "\n";
    // intersection perform
    cout << "Intersection of A and B is:" << endl;
    for (int i = 0; i < size; i++) {
        for (int j = 0; j < size; j++) {
            if (SetA[i] == SetB[j]) {
                cout << SetA[i] << "\t";
                break;
            }
        }
    }
    cout << "\n";
    // union perform
    cout << "Union of A and B is: " << endl;
    int i, j, k;
    int C[size + size];
}

```

```

    for (i = 0; i < size; i++) {
        C[i] = SetA[i];
    }
    for (j = 0; j < size; j++) {
        for (k = 0; k < size; k++) {
            if (SetB[j] == SetA[k]) {
                break;
            }
        }
        if (k == size) {
            C[i] = SetB[j];
            i++;
        }
    }
    for (int m = 0; m < i; m++) {
        cout << C[m] << "\t";
    }
    return 0;
}

```