FenwickTree (BIT) sum query on 2D-Array:

```cpp

//point update
struct FenwickTree2D {
    vector<vector<int>> bit;
    int n , m;

    FenwickTree2D(int n , int m) {
        this->n = n;
        this->m = m;
        bit.assign(n , vector<int>(m , 0));
    }

    FenwickTree2D(vector<vector<int>> a , int n , int m) : FenwickTree2D(n , m) {
        for (int i = 0; i < n; i++)
            for (int j = 0; j < m; j++)
                update(i , j , a[i][j]);
    }

    //answer query from (x , y) to (0 , 0)
    int query(int x, int y) {
        int ret = 0;
        for (int i = x; i >= 0; i = (i & (i + 1)) - 1)
            for (int j = y; j >= 0; j = (j & (j + 1)) - 1)
                ret += bit[i][j];
        return ret;
    }

    //answer query from (x2 , y2) to (x1 , y2)
    int query(int x1 , int y1 , int x2 , int y2){
        return query(x2 , y2) - query(x1-1 , y2)
                - query(x2 , y1-1) + query(x1-1 , y1-1);
    }

    void update(int x, int y, int delta) {
        for (int i = x; i < n; i = i | (i + 1))
            for (int j = y; j < m; j = j | (j + 1))
                bit[i][j] += delta;
    }
};
```