FINALS SUBRECTANGLE C++

```
int find_max_sum_of_subrect(string values) {
 // Declare variables, read number of rows and columns
 stringstream ss(values);
 const int lim = 11;
 int n, m, ans = INT_MIN;
 ss >> n >> m;
 int mt[lim][lim], s[lim][lim];

 // Read the matrix
 for(int i = 1; i <= n; i++) {
 for(int j = 1; j <= m; j++) {
 ss >> mt[i][j];
 }
 }

 // Precalculate partial sum
 memset(s, 0, sizeof s);
 for(int i = 1; i <= n; i++) {
 for(int j = 1; j <= m; j++) {
 s[i][j] = mt[i][j] + s[i - 1][j] + s[i][j - 1] - s[i - 1][j - 1];
 }
 }

 // Submatrix sum function
 auto sum = [&s](int i1, int j1, int i2, int j2) -> int {
 return s[i2][j2] - s[i1 - 1][j2] - s[i2][j1 - 1] + s[i1 - 1][j1 - 1];
 };
```

```
 // Find maximum submatrix sum
 for(int i1 = 1; i1 <= n; i1++) {
 for(int i2 = i1; i2 <= n; i2++) {
 for(int j1 = 1; j1 <= m; j1++) {
 for(int j2 = j1; j2 <= m; j2++) {
( (i1 j1 i2 j2))
ans = max(ans, sum(i1, j1, i2, j2));
 }
 }
 }
 }
 return ans;
}
```