

```
1 class Max_Clique {
2 private:
3     static int max_clique_rec(const vvi &mx, unordered_map<ll, int> &mp, ll mask) {
4         if (mask != 0 && mp[mask] == 0) {
5             ll x = mask & -mask;
6             int id = int(log2(x));
7             int r0 = max_clique_rec(mx, mp, mask ^ x);
8             ll y = 0;
9             for (int j = id + 1; j < mx[id].size(); ++j) {
10                 if (mask & (ll(mx[id][j]) << j)) y |= (1LL << j);
11             }
12             int r1 = max_clique_rec(mx, mp, y) + 1;
13             mp[mask] = max(r0, r1);
14         }
15         return mp[mask];
16     }
17 public:
18     // O(n*2^(n/2))
19     static int max_clique(const vvi &mx) {
20         int n = int(mx.size());
21         unordered_map<ll, int> mp;
22         return max_clique_rec(mx, mp, (1LL << n) - 1);
23     }
24 };
```