

1. 解題說明:基本上就是照題目打
2. 效能分析:時間複雜度 2^n 。空間複雜度 2^n 記憶體容量
3. 測試與驗證
4. 申論及心得:題目相對簡單

```
main.cpp Download Current File
8      cout << subset[i] << " ";
9    }
10    cout << "} ";
11  }
12
13  void generatePowerset(char set[], char subset[], int n, int index, int subsetSize) {
14
15      if (index == n) {
16          printSubset(subset, subsetSize);
17          return;
18      }
19
20      generatePowerset(set, subset, n, index + 1, subsetSize);
21
22      subset[subsetSize] = set[index];
23      generatePowerset(set, subset, n, index + 1, subsetSize + 1);
24  }
25
26  void powerset(char set[], int n) {
27      char subset[n];
28      generatePowerset(set, subset, n, 0, 0);
29  }
30
31  int main() {
32      char S[] = {'a', 'b', 'c'};
33      int n = sizeof(S) / sizeof(S[0]);
34
35      cout << "Powerset of S: ";
36      powerset(S, n);
37
38      return 0;
39  }
40
```

Poweraset of S: { } { c } { b } { b c } { a } { a c } { a b } { a b c }

...Program finished with exit code 0
Press ENTER to exit console.