資料結構 1023 作業 2

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第二題:

> If S is a set of n elements, the *powerset* of S is the set of all possible subsets of S. For example, if $S = (a,b,c)$, then *powerset* $(S) = \{(\ ), (a), (b), (c), (a,b), (a,c), (b,c), (a,b,c)\}$. Write a recursive function to compute *powerset* (S).

這是一個冪集函式

會把所有的子集以 ABC 的方式列印出來

程式實作:10232.cpp

```cpp
void powerset(int numbernow,int size)
{
    if (numbernow < 0) {
        return;
    }
    for (int i = size - 1; i >= 0; --i) {
        if (numbernow & (1 << i)) {
            cout << (char)('A' + i) << " ";
        }
        else{
            cout<<"  ";
        }
    }
    cout << endl;
    powerset(numbernow - 1, size);
}
```