

22 numAB: 1A2B猜數字遊戲之一

- global variables
- function calls
- random number
- arrays

22.1 Project Description

- 設計一個簡單的1A2B猜數字遊戲

22.2 Source Code

```
#include <stdio.h>
#include <stdlib.h>

#define codeLen 4

int answer[codeLen];
int guess[codeLen];

void generateCode();
void getUserGuess();
int checkAGuess();

int main()
{
    int quit=0;
    int count=0;
    generateCode();
    while(!quit)
    {
        printf("#%d :", ++count);
        getUserGuess();
        if( checkAGuess() )
            quit=1;
    }
    printf("Bye!\n");
}

void generateCode()
```

```
{

    answer[0]=1;
    answer[1]=2;
    answer[2]=3;
    answer[3]=4;

}

void getUserGuess()
{
    scanf("%d %d %d %d", &guess[0], &guess[1], &guess[2], &guess[3] );
}

int checkAGuess()
{
    int a=0, b=0, i, j;
    for(i=0; i< codeLen ; i++)
    {
        // guess[i]
        for(j=0; j< codeLen ; j++)
        {
            if ((guess[i]==answer[j]) && (i==j))
            {
                a++;
                break;
            }
            else if (guess[i]==answer[j])
            {
                b++;
                break;
            }
        }
    }
    printf("...>>> %dA %dB\n", a, b);
    if(a==4)
        return 1;
    else
        return 0;
}
```

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