

Lesson 1 C mini-exercise

1. Write a C program to prompt the user to input her/his age and print it on the screen, as shown below.

```
Enter your age:22
You are 22 years old.
請按任意鍵繼續 . . .
```

2. Write a C program that will print the following pattern:

```
*****
*****
*****
****
***
**
*
```

```
*****
*****
*****
****
***
**
*
```

```
請按任意鍵繼續 . . .
```

3. Modify question 2 and create a function to perform the same task
4. Initialize 5 integers inside an array and calculate the average.
5. Base on the following code, what is the

```
#include <stdio.h>
#include<stdlib.h>
void vset(int,int);
void rset(int*,int);
int main(void)
{
    int x=0,*p;
    p = &x;
    vset(x,1);
    printf("x = %d ",x); ←--- what is the value of x?
    rset(p,1);
    printf("x = %d\n",x); ←--- what is the value of x?
    system("pause");
}
void vset(int x,int y)
{
    x = y;
}
void rset(int *p,int y)
{
    *p = y;
}
```

Create a swap function which allows the value of a and b swap.

```
#include <stdio.h>
#include<stdlib.h>
void swap(int *,int *);
int main(void)
{
    int a=4,b=3;
    swap(&a,&b);
    printf("a = %d b= %d\n",a,b);
}
```

```
    system("pause");  
}
```

void swap(...) ←---how to write this function?

```
{  
.....  
}
```

Output

```
#include <stdio.h>  
#include<stdlib.h>  
void swap(int *,int *);  
int main(void)  
{  
    int a=4,b=3;  
    swap(&a,&b);  
    printf("a = %d  b= %d\n",a,b);  
    system("pause");  
}
```

D:\VTC_PEAK_BSc\BridgingCourse_DataStructure_Algo

a = 3 b= 4
請按任意鍵繼續 . . .