DASF004: Basic and Practice in Programming

- Lab 9: Pointer 2

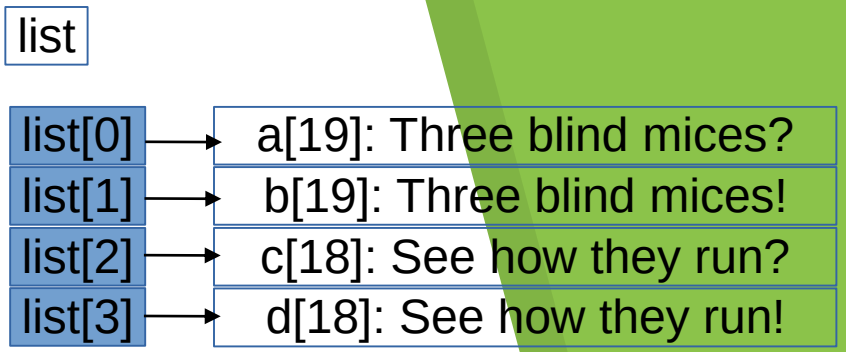
In this lab ...

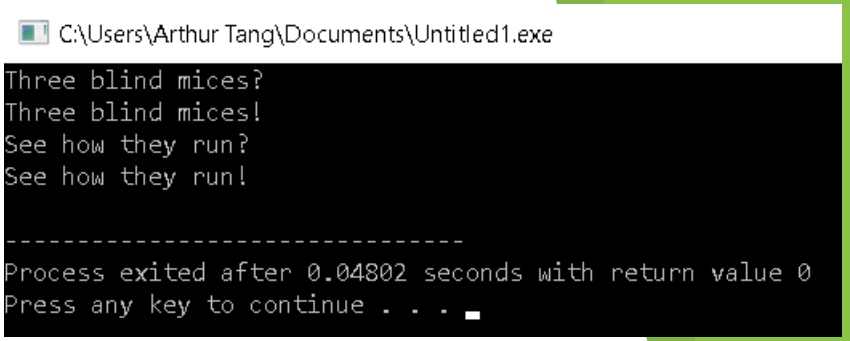
- Using Practical Application of Pointer Variable

- What you need to submit in this lab (Lab #9):
  - Lab Exercise #9 by Wednesday 11:59 pm
  - Lab Assignment #9 by Tuesday 11:59 pm

- Consider the following code:

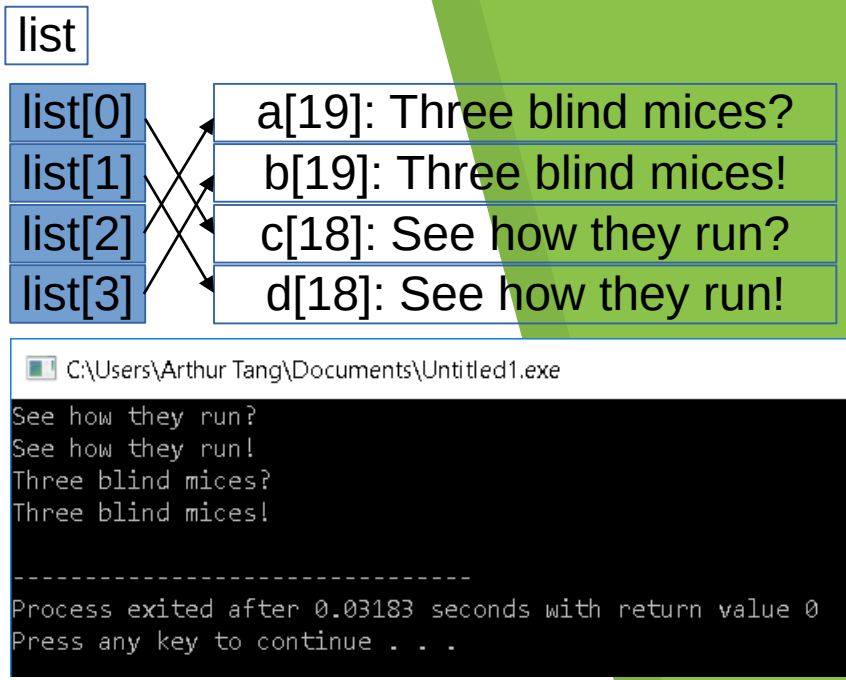
```
#include <stdio.h>

int main(void)
{       char *list[4] = {NULL};
        char a[19] = "Three blind mices?";
        char b[19] = "Three blind mices!";
        char c[18] = "See how they run?";
        char d[18] = "See how they run!";

        list[0] = a;      list[1] = b;
        list[2] = c;      list[3] = d;
        printf("%s\n%s\n%s\n%s\n",list[0],list[1],list[2],list[3]);
}
```





- Modifying the list as show:

```
#include <stdio.h>

int main(void)
{       char *list[4] = {NULL};
        char a[19] = "Three blind mices?";
        char b[19] = "Three blind mices!";
        char c[18] = "See how they run?";
        char d[18] = "See how they run!";

        list[0] = c; list[1] = d;
        list[2] = a; list[3] = b;

        printf("%s\n%s\n%s\n%s\n",list[0],list[1],list[2],list[3]);
}
```

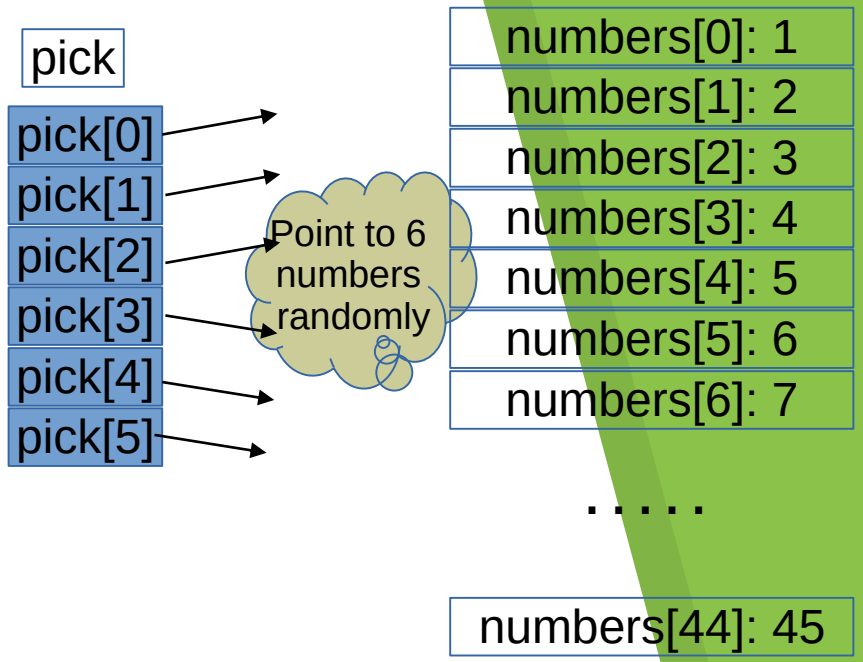


Lab Exercise #9

The following code segment:

- creates an integer array with 45 integers `numbers[45]`
- creates an integer pointer arrays with 6 pointers pointing to 0 initially

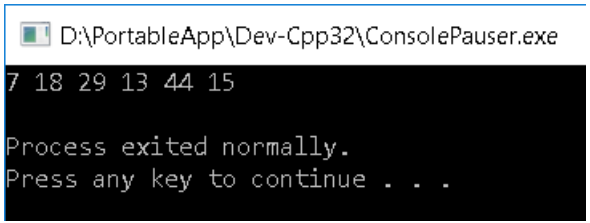
Modify the code such that the integer pointer arrays is pointing to 6 numbers of `numbers[45]` randomly.

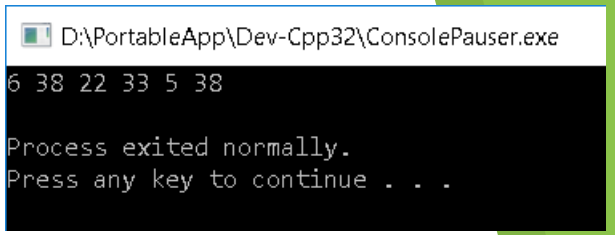



```
#include <stdio.h>

int main(void)
{    int numbers[45];
     for (int i=0;i<45;i++)
        numbers[i] = i+1;
     int * pick[6] = {0};

     // Add your code here!!!
     printf("%d %d %d %d %d %d",*pick[0],*pick[1],*pick[2],*pick[3],*pick[4],*pick[5]);
}
```

Submit your code to Lab Exercise #9 on iCampus!

Lab Exercise #9

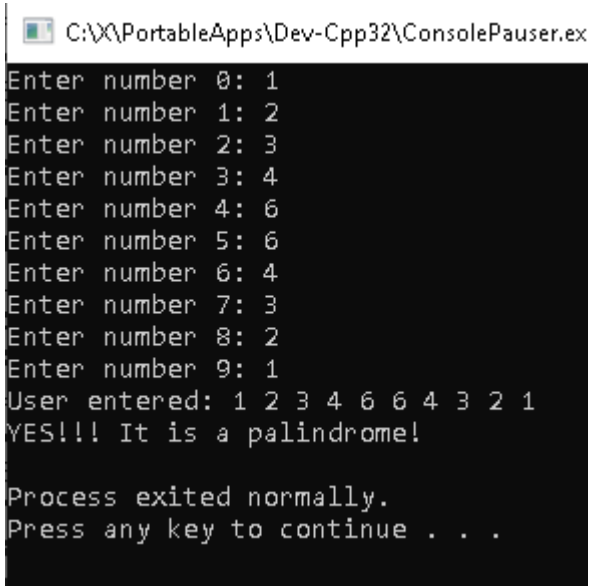


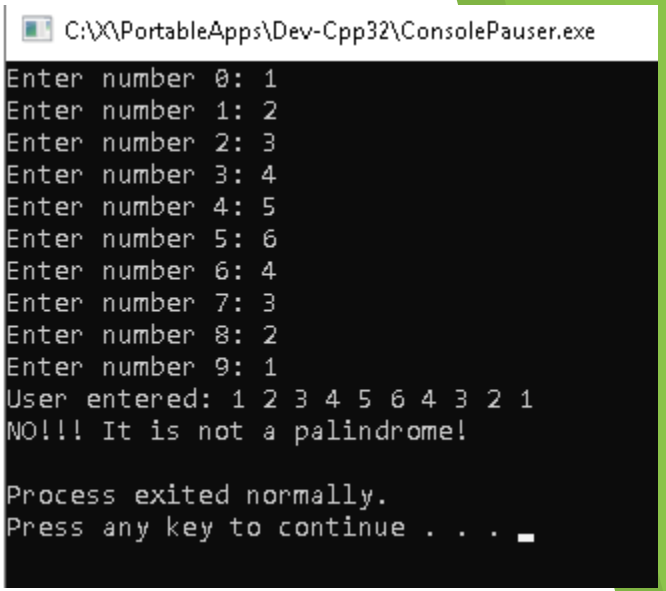


Lab Assignment #9: Palindrome

- Palindrome is a word which read the same forward and backward.
- For example: “123321”, “racer”, “a” are palindromes.
- In this assignment, you will write a program to ask the user to enter 10 integers, and store them into an integer array.
- You need to check if the 10 integers entered by the user is a palindrome or not using pointer.

- Your code should contains two pointers: `*head` and `*tail`.
- `*head` points to the first integer the user entered; while `*tail` points to the last integer the user entered.
- Your program will move these two pointers and check if the integer entered by the user is a palindrome or not, and display “yes” or “no”.


C:\X\PortableApps\Dev-Cpp32\ConsolePauser.ex
Enter number 0: 1
Enter number 1: 2
Enter number 2: 3
Enter number 3: 4
Enter number 4: 6
Enter number 5: 6
Enter number 6: 4
Enter number 7: 3
Enter number 8: 2
Enter number 9: 1
User entered: 1 2 3 4 6 6 4 3 2 1
YES!!! It is a palindrome!
Process exited normally.
Press any key to continue . . .


C:\X\PortableApps\Dev-Cpp32\ConsolePauser.exe
Enter number 0: 1
Enter number 1: 2
Enter number 2: 3
Enter number 3: 4
Enter number 4: 5
Enter number 5: 6
Enter number 6: 4
Enter number 7: 3
Enter number 8: 2
Enter number 9: 1
User entered: 1 2 3 4 5 6 4 3 2 1
NO!!! It is not a palindrome!
Process exited normally.
Press any key to continue . . .

Lab Assignment #9:

Submit your source code on iCampus before Tuesday 11:59 pm