

ALAA BARKA

TP2

EX1 :

Instruction	A	B	C	P1	P2	*P1	*P2
INIT	1	2	3				
P1 = &A	1	2	3	&A			
P2 = &C	1	2	3	&A	&C	1	3
*P1 = (*P2)++	3	2	4	&A	&C	3	4
P1 = P2	3	2	4	&C	&C	4	4
P2 = &B	3	2	4	&C	&B	4	2
*P1 -= *P2	3	2	2	&C	&B	2	2
++*P2	3	3	2	&C	&B	2	3
*P1 *= *P2	3	3	6	&C	&B	6	3
A = ++*P2**P1	24	4	6	&C	&B	6	4
P1 = &A	24	4	6	&A	&B	24	4
*P2 = *P1 /= *P2	6	6	6	&A	&B	6	6

EX2 :

	a	b	c	&a	&b	&c	p1	p2	*p1	*p2
Initialisation	1	2	3	f0	f4	f8				
P1 = &a	1	2	3	f0	f4	f8	f0		1	
P2 = &c	1	2	3	f0	f4	f8	f0	f8	1	3
*p1 = *p2	3	2	3	f0	f4	f8	f0	f8	3	3
(*p2)++	3	2	4	f0	f4	f8	f0	f8	3	4
p1 = p2	3	2	4	f0	f4	f8	f8	f8	4	4
P2 = &b	3	2	4	f0	f4	f8	f8	f4	4	2
*p2=*p1-2**p2	3	0	4	f0	f4	f8	f8	f4	4	0
(*p2)--	3	-1	4	f0	f4	f8	f8	f4	4	-1
*p1 = *p2-c	3	-1	-5	f0	f4	f8	f8	f4	-5	-1
a=(2+*p2)**p1	-5	-1	-5	f0	f4	f8	f8	f4	-5	-1

	a	b	c	&a	&b	&c	p1	p2	*p1	*p2
p2 = &c	-5	-1	-5	f0	f4	f8	f8	f8	-5	-5
*p2=*p1/*p2	-5	-1	-1	f0	f4	f8	f8	f8	-1	-1
*p1=a+ b	-5	-1	-6	f0	f4	f8	f8	f8	-6	-6
a+=*p1	-11	-1	-6	f0	f4	f8	f8	f8	-6	-6
b=*p1*~p2	-11	-12	-6	f0	f4	f8	f8	f8	-6	-6
*p1=2*a	-11	-12	-22	f0	f4	f8	f8	f8	-22	-22
a=*p2	-22	-12	-22	f0	f4	f8	f8	f8	-22	-22
*p2=*p1~p2	-22	-12	0	f0	f4	f8	f8	f8	0	0
*p1=1~c	-22	-12	1	f0	f4	f8	f8	f8	1	1
*p2+=*p1+a	-22	-12	-20	f0	f4	f8	f8	f8	-20	-20
p2=p1=&a	-22	-12	-20	f0	f4	f8	f0	f0	-22	-22
p2++	-22	-12	-20	f0	f4	f8	f0	?	-22	?
p1+=2	-22	-12	-20	f0	f4	f8	?	?	?	?
c=p2==&c	-22	-12	0	f0	f4	f8	?	?	?	?
p1=NULL	-22	-12	0	f0	f4	f8	?	?	?	?

EX3

```
#include <stdio.h>

int main () {

    int a, b ;
    printf("Enter A \n");
    scanf("%d", &a);
    printf("Enter B \n");
    scanf("%d", &b);

    int *p1 = &a, *p2=&b;
```

```

    int sum = *p1 + *p2 ;
    printf("sum = %d", sum );
    return 0;
}

```

Exec :

```

D:\UNIVERSITY\University-Codes\SEM2\Atelier\TP2>gcc ex1.c -o ex 66
ex.exe
Enter A
4
Enter B
8
sum = 12
D:\UNIVERSITY\University-Codes\SEM2\Atelier\TP2>

```

Ex4

```

#include <stdio.h>

int main () {

    char a, b ;
    printf("Enter A \n");

    scanf(" %c", &a) ;

    printf("Enter B \n");
    scanf(" %c", &b) ;

    char *p1 = &a, *p2=&b;
    char temp = *p1;
    *p1 = *p2;
    *p2 = temp;
}

```

```
printf("A = %c \n", a);  
printf("B = %c \n", b);  
return 0;  
}
```

```
D:\UNIVERSITY\University-Codes\SEM2\Atelier\TP2>gcc ex2.c -o ex 86  
ex.exe  
Enter A  
e  
Enter B  
r  
A = r  
B = e  
  
D:\UNIVERSITY\University-Codes\SEM2\Atelier\TP2>
```

Ex5

```
#include <stdio.h>  
  
int main () {  
    int n ;  
    printf("Enter The length \n") ;  
    scanf("%d", &n) ;  
    int arr[n] ;  
    int *p = arr ;  
    while(p < arr+n)  
    {  
        printf("Enter The element \n") ;  
        scanf("%d", p) ;  
        ++p ;  
    }  
  
    int sum = 0 ;
```

```

int *p1 = arr;
while (p1 < arr + n) {
    sum += *p1 ;
    p1++ ;
}

printf("The Sum is : %d" , sum) ;

return 0 ;
}

```

```

D:\UNIVERSITY\University-Codes\SEM2\Atelier\TP2>gcc ex3.c -o ex 86
ex.exe
Enter The length
5
Enter The element
1
Enter The element
5
Enter The element
3
Enter The element
4
Enter The element
6
The Sum is : 19
D:\UNIVERSITY\University-Codes\SEM2\Atelier\TP2>

```

Ex6

```

#include <stdio.h>
int Interval() {
    int n ;
    printf("Enter The number ! \n") ;
    scanf("%d" , &n);
    if (n > 0) return n ;
}

```

```

    return Interval () ;
}

int main () {
    int n = Interval();
    int arr[n] ;
    int *PP = arr ;
    while (PP < arr + n) {
        printf("Enter a data ! ");
        scanf("%d", PP) ;
        ++PP ;
    }
    int *P = arr ;
    while (P < arr+n) {
        printf("%d , " , *P) ;
        ++P ;
    }
    printf("\n");
    int x ;
    printf("Enter the targetted Data ! \n") ;
    scanf("%d" , &x) ;

    int count = 0 ;

    int *Po = arr ;
    while (Po < arr + n) {
        if (*Po == x ) {

            int *P1 = Po ;
            while (P1 < arr + n - 1) {
                *P1 = *(P1+1) ;
                ++P1 ;
            }
            ++count ;
        }
    }
}

```

```

        ++Po ;
    }

    n = n-count ;
    int *Pr = arr ;
    while (Pr < arr+n) {
        printf("%d , " , *Pr) ;
        ++Pr ;
    }
    return 0 ;
}

```

```

D:\UNIVERSITY\University-Codes\SEM2\Atelier\TP2>gcc ex4.c -o ex 86
ex.exe
Enter The number !
5
Enter a data ! 1
Enter a data ! 2
Enter a data ! 3
Enter a data ! 2
Enter a data ! 4
1 , 2 , 3 , 2 , 4 ,
Enter the targetted Data !
2
1 , 3 , 4 ,
D:\UNIVERSITY\University-Codes\SEM2\Atelier\TP2>

```