

1. WAP to find the given element from the array
Take array size and array elements from the user

```
/*
1. WAP to find the given element from the array
   Take array size and array elements from the user
*/

#include<stdio.h>

void main(){
    int size,search,flag = 0;

    printf("Enter the size of array :");
    scanf("%d",&size);

    int arr[size];
    printf("Enter element of array :\n");
    for(int i = 0;i < size;i++){
        scanf("%d",&arr[i]);
    }

    printf("Enter the search element ::");
    scanf("%d",&search);

    for(int i = 0;i < size;i++){
        if(search == arr[i]){
            flag = 1;
        }
    }
    if(flag == 1){
        printf("%d is present\n",search);
    }else{
        printf("%d is not present\n",search);
    }
}
```

```
dhiraj@dhiraj-HP:~/Cprogramming/Assignment/Practical3$ vim Program1.c
dhiraj@dhiraj-HP:~/Cprogramming/Assignment/Practical3$ cc Program1.c
dhiraj@dhiraj-HP:~/Cprogramming/Assignment/Practical3$ ./a.out
Enter the size of array :5
Enter element of array :
11
12
13
14
15
Enter the search element ::15
15 is present
dhiraj@dhiraj-HP:~/Cprogramming/Assignment/Practical3$
```

2. WAP to calculate the count of even and odd elements
Take array size and array elements from the user

```
/*
2. WAP to calculate the count of even and odd elements
Take array size and array elements from the user
*/

#include<stdio.h>

void main() {
    int size,count1 = 0,count2 = 0;

    printf("Enter the size of array ::");
    scanf("%d",&size);

    int arr[size];

    printf("Enter the element of array ::\n");

    for(int i = 0;i < size;i++){
        scanf("%d",&arr[i]);
    }

    for(int i = 0;i < size;i++){
        if(i % 2 == 0){
            count1++;
        }
        else{
            count2++;
        }
    }
    printf("even element count is %d \n",count1);
    printf("Odd element count is %d \n",count2);
}
```

```
dhiraj@dhiraj-HP:~/Cprogramming/Assignment/Practical3$ cc Program2.c
dhiraj@dhiraj-HP:~/Cprogramming/Assignment/Practical3$ ./a.out
Enter the size of array ::6
Enter the element of array ::
1
2
3
4
5
6
even element count is 3
Odd element count is 3
dhiraj@dhiraj-HP:~/Cprogramming/Assignment/Practical3$
```

3. WAP to add two different arrays of the same size Take array size and array elements from the user

```
/*
3. WAP to add two different arrays of the same size
Take array size and array elements from the user
*/

#include<stdio.h>

void main() {
    int size;

    printf("Enter the size of array ::");
    scanf("%d",&size);

    int arr1[size];
    int arr2[size];
    printf("Enter the element of 1st array ::\n");

    for(int i = 0;i < size;i++){
        scanf("%d",&arr1[i]);
    }

    printf("Enter the element of 2nd array ::\n");

    for(int i = 0;i < size;i++){
        scanf("%d",&arr2[i]);
    }

    printf("Addition of two array ::\n");
    for(int i = 0;i < size;i++){
        printf("%d",arr1[i] + arr2[i]);
    }
}

dhiraj@dhiraj-HP:~/Cprogramming/Assignment/Practical3$ cc Program3.c
dhiraj@dhiraj-HP:~/Cprogramming/Assignment/Practical3$ ./a.out
Enter the size of array ::5
Enter the element of 1st array ::
10
20
30
40
50
Enter the element of 2nd array ::
11
12
13
14
15
Addition of two array ::
21
32
43
54
65
dhiraj@dhiraj-HP:~/Cprogramming/Assignment/Practical3$
```

4. WAP to the array elements in reverse order
Take array size and array elements from the user

```
/*
4. WAP to the array elements in reverse order
Take array size and array elements from the user
*/

#include<stdio.h>

void main() {

    int size;

    printf("Enter the size of array ::");
    scanf("%d",&size);

    int arr[size];

    printf("Enter the array of Element ::\n");
    for(int i = 0;i < size;i++){
        scanf("%d",&arr[i]);
    }

    printf("Array element in reverse order ::\n");
    for(int i = size-1;i >= 0;i--){
        printf("%d\n",arr[i]);
    }

}
```

```
dhiraj@dhiraj-HP:~/Cprogramming/Assignment/Practical3$ cc Program4.c
dhiraj@dhiraj-HP:~/Cprogramming/Assignment/Practical3$ ./a.out
Enter the size of array ::5
Enter the array of Element ::
1
2
3
4
5
Array element in reverse order ::
5
4
3
2
1
dhiraj@dhiraj-HP:~/Cprogramming/Assignment/Practical3$
```


5.

```

/*
5.
*/

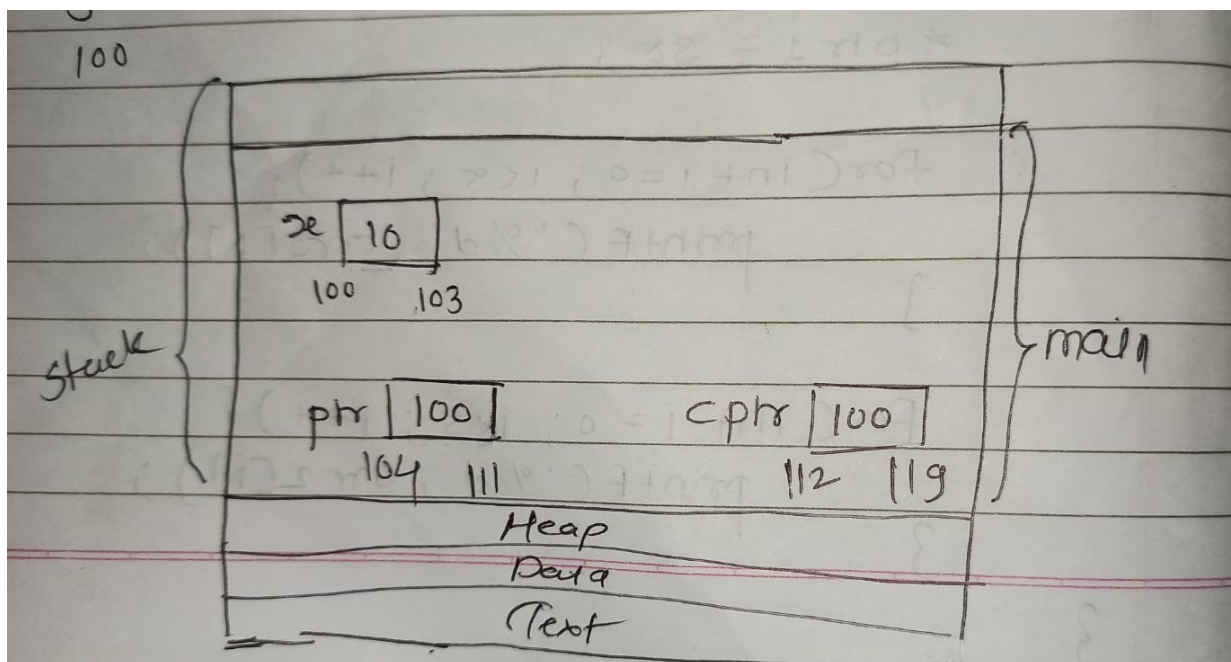
#include<stdio.h>
void main(){
    int x=10;
    int *ptr=&x;
    char *cptr=&x;
    printf("%d\n",*ptr);
    printf("%d\n",cptr);
}
~
~
~

```

```

dhiraj@dhiraj-HP:~/Cprogramming/Assignment/Practical3$ cc Program5.c
Program5.c: In function 'main':
Program5.c:10:20: warning: initialization of 'char *' from incompatible pointer
type 'int *' [-Wincompatible-pointer-types]
   10 |         char *cptr=&x;
       |                ^
Program5.c:12:18: warning: format '%d' expects argument of type 'int', but argum
ent 2 has type 'char *' [-Wformat=]
   12 |         printf("%d\n",cptr);
       |                ~^      ~~~~
               |         |
               int    char *
               %s
dhiraj@dhiraj-HP:~/Cprogramming/Assignment/Practical3$ ./a.out
10
96423860
dhiraj@dhiraj-HP:~/Cprogramming/Assignment/Practical3$

```



6. WAP to swap values of two numbers using a pointer.
(Hint: Use de-referencing of pointers)

```

/*
6. WAP to swap values of two numbers using a pointer.
(Hint: Use de-referencing of pointers)
x = 10;
y = 20;
*/

#include<stdio.h>

void main(){

    int x = 10,y = 20,z = 0;

    int *ptr1 = &x;
    int *ptr2 = &y;
    int *ptr3 = &z;

    z = *ptr2;
    *ptr2 = *ptr1;
    *ptr1 = z;

    printf("%d\n",*ptr1);
    printf("%d\n",*ptr2);

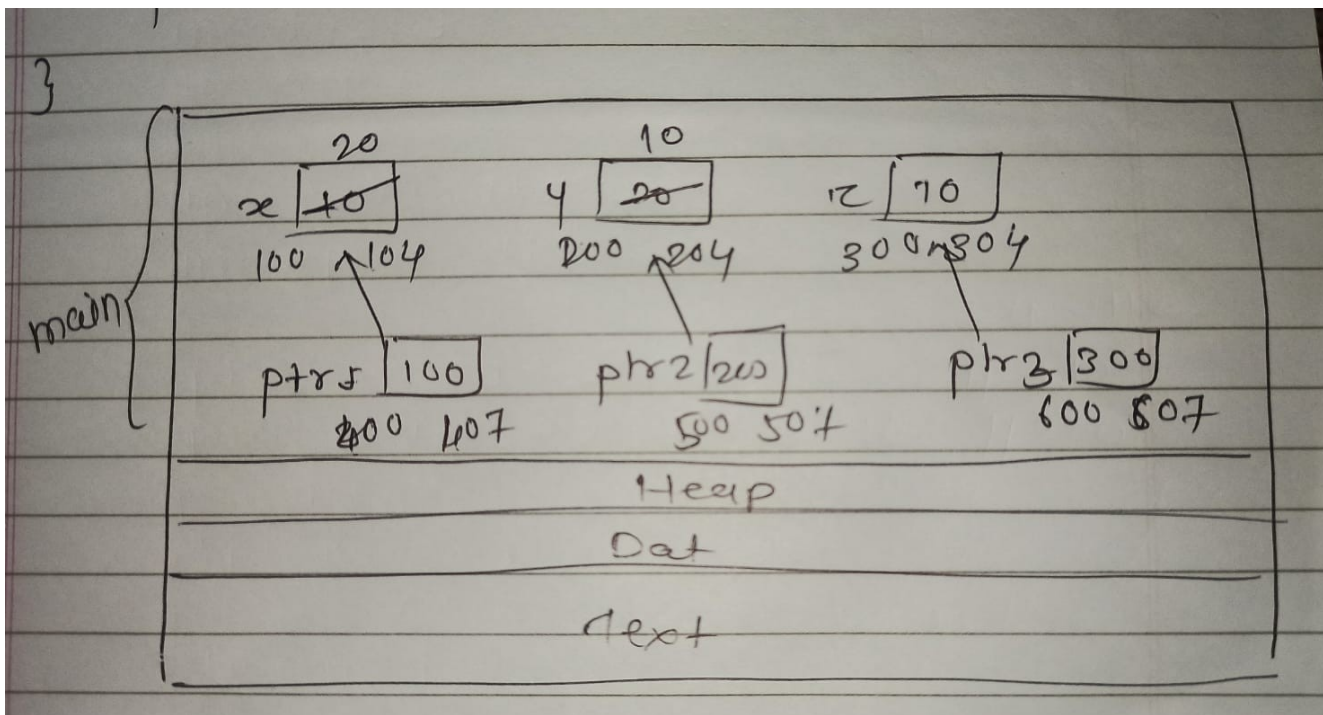
}

```

```

dhiraj@dhiraj-HP:~/Cprogramming/Assignment/Practical3$ vim Program6.c
dhiraj@dhiraj-HP:~/Cprogramming/Assignment/Practical3$ cc Program6.c
dhiraj@dhiraj-HP:~/Cprogramming/Assignment/Practical3$ ./a.out
20
10
dhiraj@dhiraj-HP:~/Cprogramming/Assignment/Practical3$

```



7. Write output & draw a good diagram for the code.

```
/*
7. Write output & draw a good diagram for the code.
*/

#include<stdio.h>

void main(){
    int arr[] = {10,20,30,40,50,60};

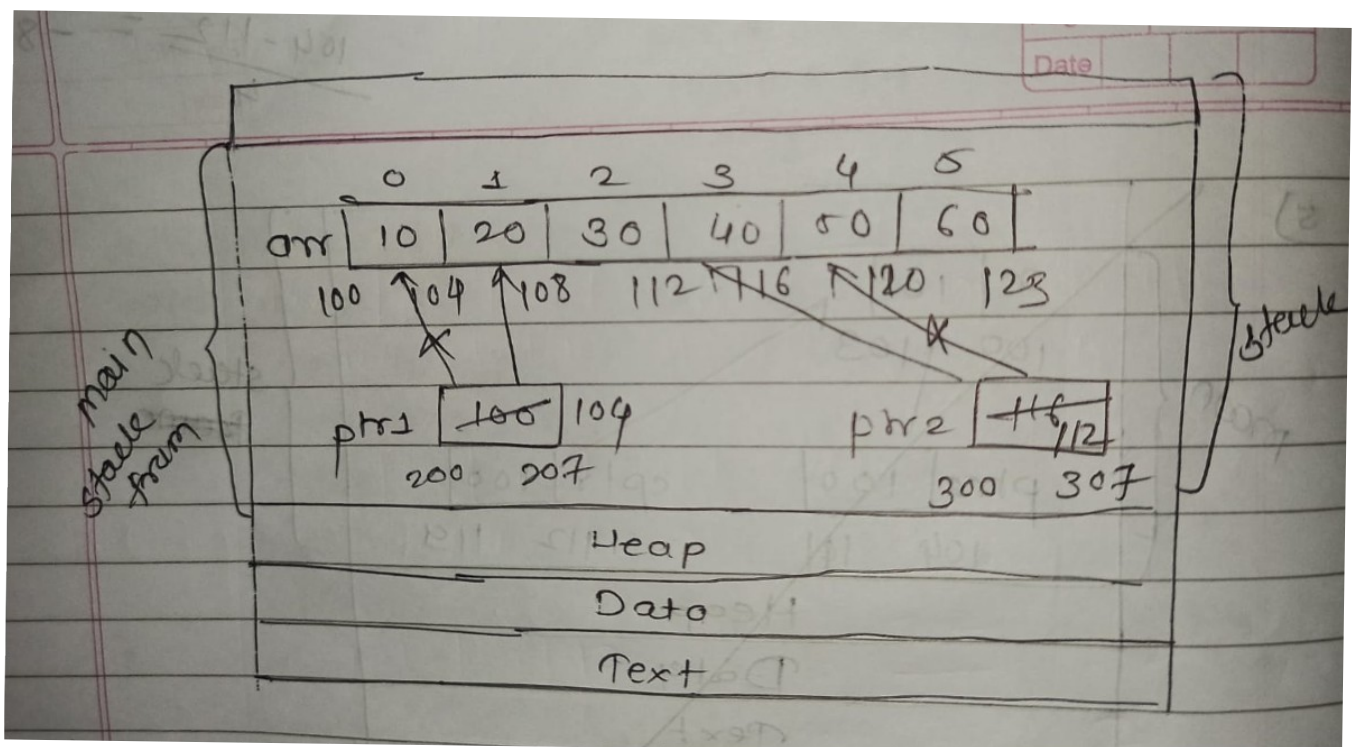
    int *ptr1 = &(arr[0]);
    int *ptr2 = &(arr[4]);

    ptr1++;
    ptr2--;

    printf("%d\n",*ptr1);
    printf("%d\n",*ptr2);

    printf("%ld\n",ptr1-ptr2);
}
```

```
dhiraj@dhiraj-HP:~/Cprogramming/Assignment/Practical3$ vim Program7.c
dhiraj@dhiraj-HP:~/Cprogramming/Assignment/Practical3$ cc Program7.c
dhiraj@dhiraj-HP:~/Cprogramming/Assignment/Practical3$ ./a.out
20
40
-2
dhiraj@dhiraj-HP:~/Cprogramming/Assignment/Practical3$
```



8. Write output & draw a good diagram for the code.

```
/*
8. Write output & draw a good diagram for the code.
*/

#include<stdio.h>

void main(){
    char arr[] = {'A','B','C','D','E'};

    char *ptr = &arr[2];
    (*ptr)++;
    ptr = ptr + 2;

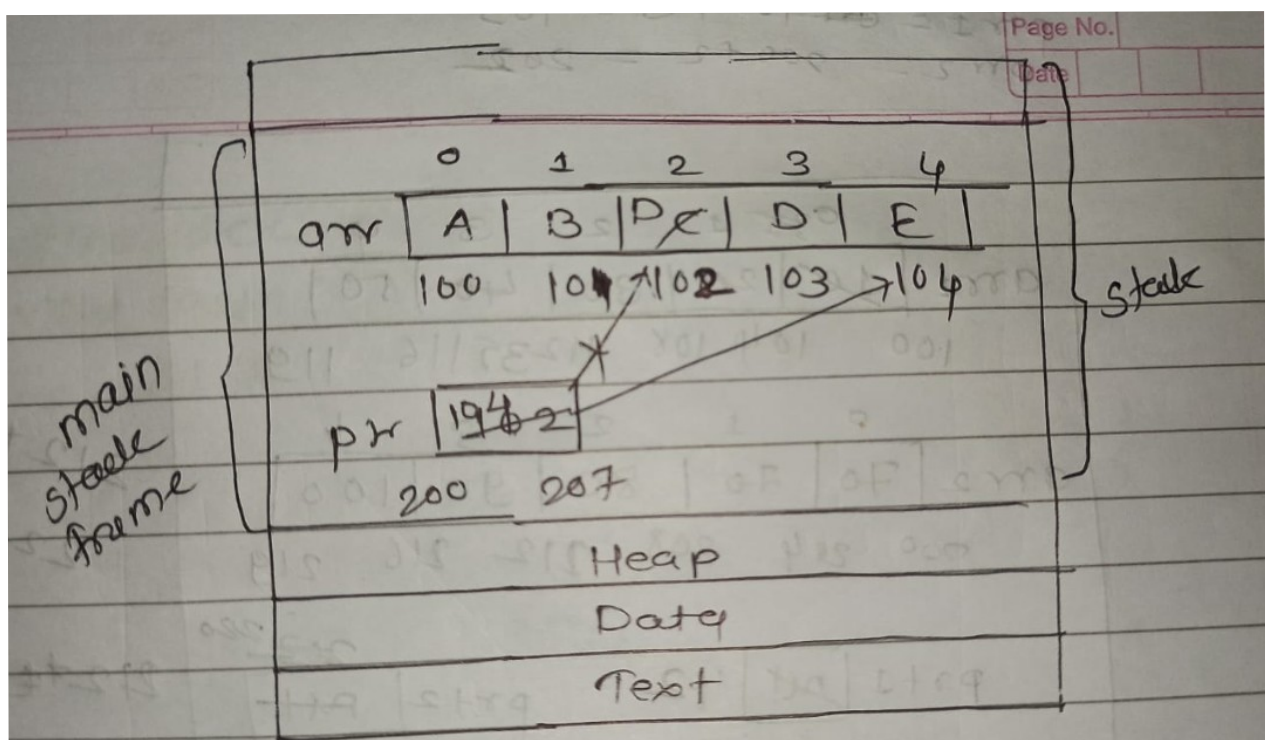
    printf("%c\n",*ptr);

    for(int i = 0;i < 5;i++){

        printf("%c \n",arr[i]);

    }
}
```

```
dhiraj@dhiraj-HP:~/Cprogramming/Assignment/Practical3$ cc Program8.c
dhiraj@dhiraj-HP:~/Cprogramming/Assignment/Practical3$ ./a.out
E
A
B
D
D
E
dhiraj@dhiraj-HP:~/Cprogramming/Assignment/Practical3$
```



9. Write output & draw a good diagram for the code.

```
/*
9. Write output & draw a good diagram for the code.
*/

#include<stdio.h>

void main(){
    int arr1[] = {10,20,30,40,50};
    int arr2[] = {70,70,80,90,100};

    int *ptr1 = NULL;
    int *ptr2 = NULL;

    ptr1 = arr1 + 3;
    ptr2 = arr2 + 3;

    *ptr1 = 35;

    printf("Array 1st :: \n");
    for(int i = 0;i < 5;i++){
        printf("%d \n",arr1[i]);
    }

    printf("Array 2nd ::\n");
    for(int i = 0;i < 5;i++){
        printf("%d\n",arr2[i]);
    }
}
```

```
dhiraj@dhiraj-HP:~/Cprogramming/Assignment/Practical3$ cc Program9.c
dhiraj@dhiraj-HP:~/Cprogramming/Assignment/Practical3$ ./a.out
Array 1st ::
10
20
30
35
50
Array 2nd ::
70
70
80
90
100
dhiraj@dhiraj-HP:~/Cprogramming/Assignment/Practical3$
```

