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COURSE NAME : DATA STRUCTURES FOR MODERN COMPUTING SYSTEMS

COURSE CODE : CSA0302

5. WRITE A C PROGRAM TO PERFORM LINEAER SEARCH IN AN ARRAY

C PROGRAMMING CODE:

```
#include <stdio.h>
int main() {
int a[100], n, i, key, found=0;
printf("Enter number of elements: ");
scanf("%d", &n);
printf("Enter %d elements:\n", n);
for(i=0; i<n; i++) scanf("%d", &a[i]);
printf("Enter element to search: ");
scanf("%d", &key);
for(i=0; i<n; i++){
if(a[i]==key){
printf("Element found at position %d\n", i+1);
found=1;
break;
}
}
if(!found) printf("Element not found\n");
return 0;
}
```

OUTPUT:

main.c

Share Run

```c
#include <stdio.h>
int main() {
    int a[100], n, i, key, found=0;
    printf("Enter number of elements: ");
    scanf("%d", &n);
    printf("Enter %d elements:\n", n);
    for(i=0;i<n;i++) scanf("%d",&a[i]);
    printf("Enter element to search: ");
    scanf("%d",&key);
    for(i=0;i<n;i++){
        if(a[i]==key){
            printf("Element found at position %d\n", i+1);
            found=1;
            break;
        }
    }
    if(!found) printf("Element not found\n");
    return 0;
}
```

Output

```
Enter number of elements: 5
Enter 5 elements:
10 80 40 60 50
Enter element to search: 40
Element found at position 3


=== Code Execution Successful ===
```