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ROLL NO: S-56

SUBJECT: AOA

EXPERIMENT NO: 4

To implement Binary Search for 'n' number and perform analysis using DAC technique

```
#include <stdlib.h>
```

```
#include <conio.h>
```

```
#include <stdio.h>
```

```
int main(){
```

```
int key, low, high, mid, n, i, A[100];
```

```
clrscr();
```

```
printf("Enter the size of array ;");
```

```
scanf("%d",&n);
```

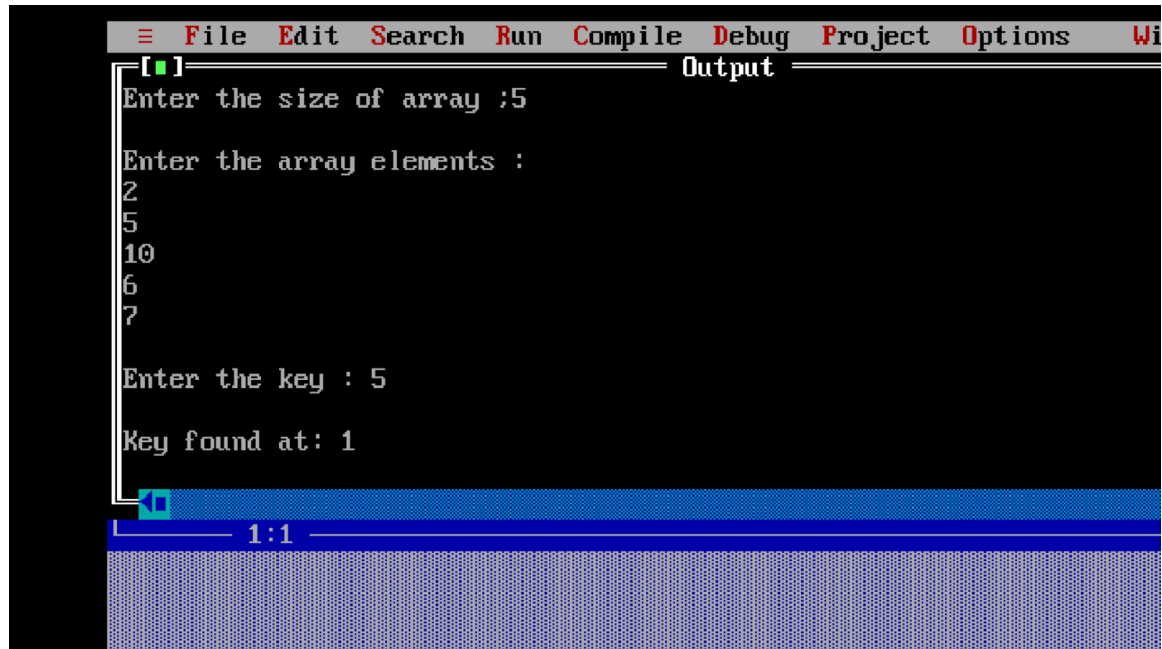
```
printf("\nEnter the array elements : \n");
```

```
for(i=0;i<n;i++){
```

```
    scanf("%d",&A[i]);
```

```
}  
  
printf("\nEnter the key : ");  
scanf("%d",&key);  
  
low=1;  
high=n;  
while(low<=high){  
    mid=(low+high)/2;  
    if(A[mid]==key){  
        printf("\nKey found at: %d ",mid);  
        break;  
    }  
    else if(A[mid]<key){  
        low=mid+1;  
    }  
    else{  
        high=mid-1;  
    }  
}  
  
return 0;  
}
```

OUTPUT:



The screenshot shows a C++ IDE with a menu bar (File, Edit, Search, Run, Compile, Debug, Project, Options, Window) and a toolbar. The main editor area contains the following text:

```
[ ]  
Enter the size of array :5  
Enter the array elements :  
2  
5  
10  
6  
7  
  
Enter the key : 5  
Key found at: 1
```

Below the editor is a blue status bar with a cursor icon and the text "1:1".