```c
#include <stdio.h>
#include <stdlib.h>
#define MAX 10000

void findPairs(int *arr, int size, int sum)
{
        int index, temp;
        int hash[MAX] = {0};

        for(index = 0; index < size; index++)
        {
                temp = sum - arr[index];
                if(temp >= 0 && hash[temp] == 1)
                        printf("Pair with given sum  %d is (%d, %d)\n", sum, arr[index], temp);
                hash[arr[index]] = 1;
        }
}

int main()
{
        int size, index, sum, *arr;
        printf("Enter number of Elements in an array \n");
        scanf("%d", &size);
        //allocate memory for array
        arr = (int *) malloc(sizeof(int) * size);
        printf("Enter elements to array\n");
        for(index = 0; index < size; index++)
                scanf("%d", &arr[index]);
        printf("Enter sum value");
        scanf("%d", &sum);
        findPairs(arr, size, sum);
        return 0;
}
```

Time complexity: O(n)
Space complexity: O(K) where K is range of integers