

```

#include <stdio.h>

void main()
{
    int n,a[100],key,j,l=1,c,i,k,c1=1,c2=2;
    printf("Enter the number of elements:");
    scanf("%d",&n);
    printf("Menu\n1.Linear probing\t2.Quadratic Probing");
    scanf("%d",&c);
    for(i=0;i<n;i++)
    {
        a[i]=-1;
    }
    if(c==1)
    {
        for(i=0;i<n;i++)
        {
            printf("Enter the elemnt:");
            scanf("%d",&key);
            j=key%n;
            if(a[j]==-1)
            {
                a[j]=key;
            }
            else if(a[j]!=-1)
            {
                l=1;
                j=(key+l)%n;
                if(a[j]==-1)
                {
                    a[j]=key;
                }
                else
                {
                    l=1;
                    while(a[j]!=-1)
                    {
                        j=(key+l)%n;
                        l++;
                    }
                }
                a[j]=key;
            }
        }
        printf("After Linear Probing:");
    }
}

```

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    for(i=0;i<n;i++)
    {
        printf("%d\t",a[i]);
    }
}

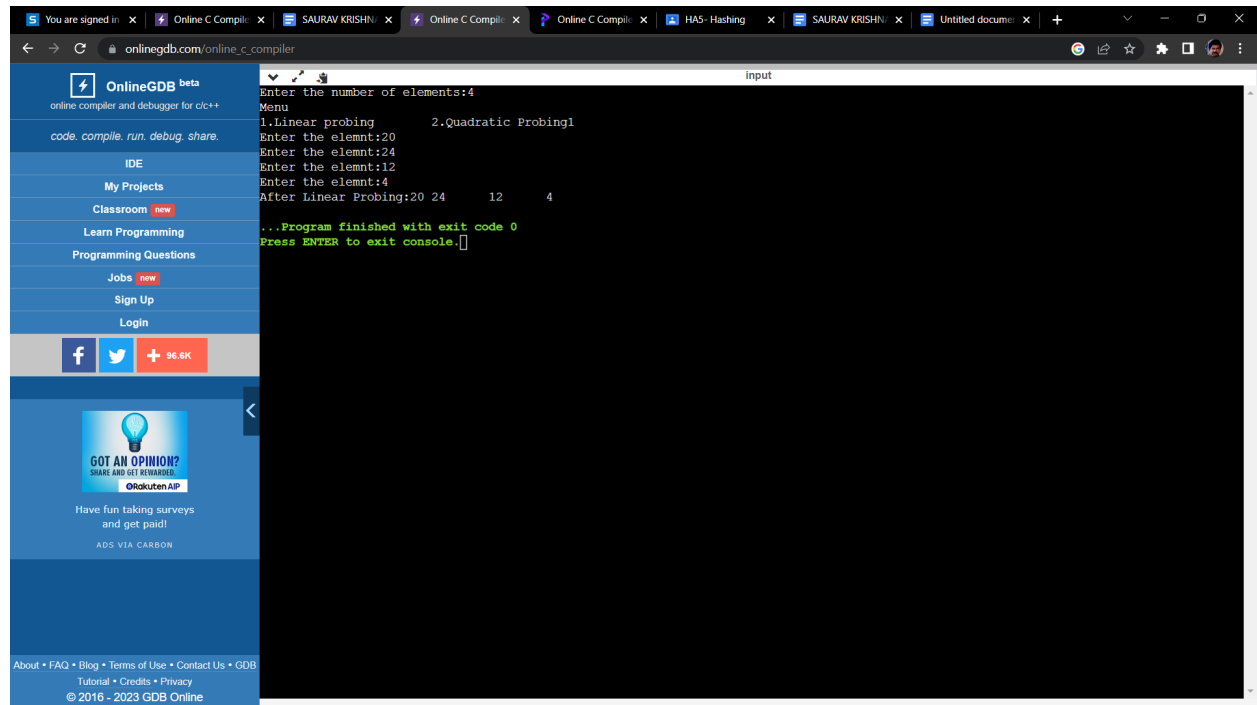
if(c==2)
{
    for(i=0;i<n;i++)
    {
        printf("Enter the elemnt:");
        scanf("%d",&key);
        j=key%n;
        if(a[j]==-1)
        {
            a[j]=key;

        }
        else if(a[j]!=-1)
        { l=1;
            j=(key+c1*l+c2*l*l)%n;
            if(a[j]==-1)
            {
                a[j]=key;
            }
            else{
                l=1;
                while(a[j]!=-1)
                {
                    j=(key+c1*l+c2*l*l)%n;
                    l++;
                }
                a[j]=key;
            }
        }
    }
}
printf("After Quadratic Probing:");
for(i=0;i<n;i++)
{
    printf("%d\t",a[i]);
}

}
}

```

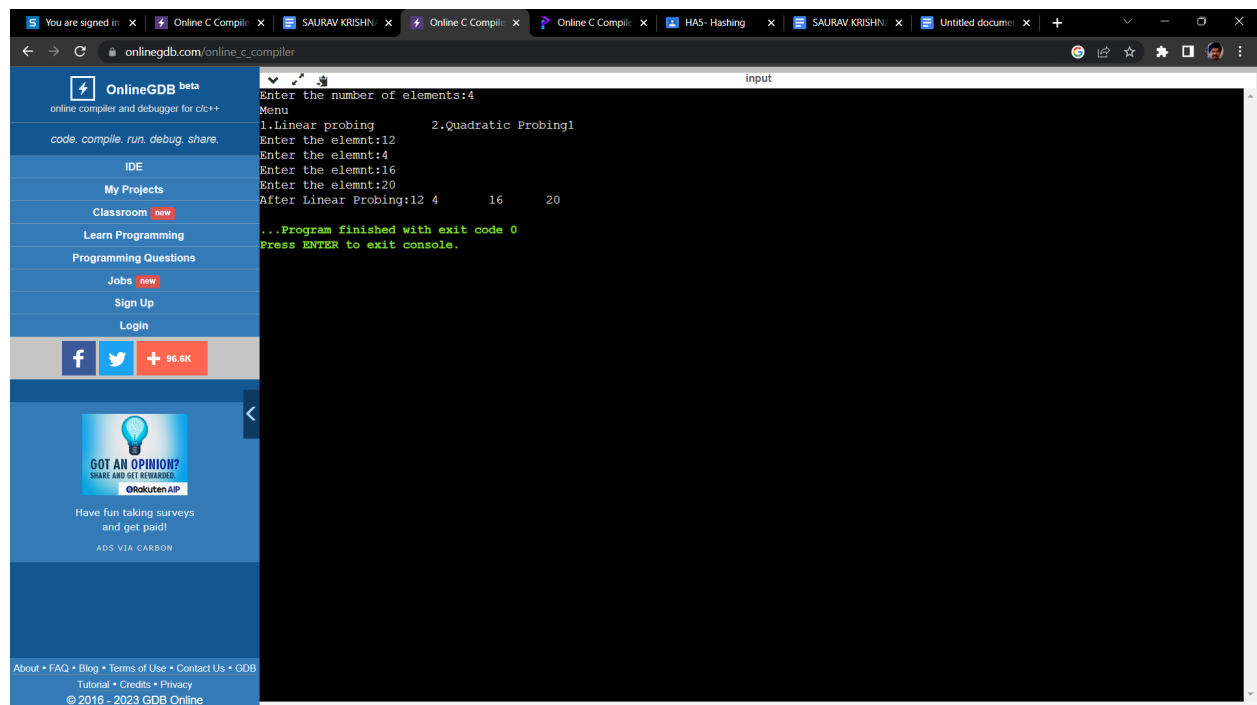
QUADRATIC PROBING



The screenshot shows the OnlineGDB interface with the following content:

- Left Sidebar:** OnlineGDB beta logo, navigation links (code, compile, run, debug, share), IDE, My Projects, Classroom (new), Learn Programming, Programming Questions, Jobs (new), Sign Up, Login, and social media links (Facebook, Twitter, +98.6K).
- Main Editor:** A C++ program for Quadratic Probing. The code prompts for the number of elements (4) and then for four elements (20, 24, 12, 4). It calculates the quadratic probe sequence and displays the results.
- Output Console:** Shows the execution results: "Enter the number of elements:4", "Menu", "1.Linear probing 2.Quadratic Probing1", "Enter the elemnt:20", "Enter the elemnt:24", "Enter the elemnt:12", "Enter the elemnt:4", "After Linear Probing:20 24 12 4", "...Program finished with exit code 0", and "Press ENTER to exit console.".

LINEAR PROBING



The screenshot shows the OnlineGDB interface with the following content:

- Left Sidebar:** OnlineGDB beta logo, navigation links (code, compile, run, debug, share), IDE, My Projects, Classroom (new), Learn Programming, Programming Questions, Jobs (new), Sign Up, Login, and social media links (Facebook, Twitter, +98.6K).
- Main Editor:** A C++ program for Linear Probing. The code prompts for the number of elements (4) and then for four elements (12, 4, 16, 20). It calculates the linear probe sequence and displays the results.
- Output Console:** Shows the execution results: "Enter the number of elements:4", "Menu", "1.Linear probing 2.Quadratic Probing1", "Enter the elemnt:12", "Enter the elemnt:4", "Enter the elemnt:16", "Enter the elemnt:20", "After Linear Probing:12 4 16 20", "...Program finished with exit code 0", and "Press ENTER to exit console.".