

Program 5: Design, develop and execute a program in C to create a Binary tree using arrays and display the tree.

```
#include<stdio.h>
#include<conio.h>
#define SIZE 100

int a[SIZE],c, p, n=0;

void bst(int ele)
{
    if(a[0]==NULL)
    {
        a[0]=ele;
        return;
    }
    c=0;p=-1;
    while(a[c]!=NULL)
    {
        p=c;
        if(ele<a[c])
            c=2*c+1;
        else
            c=2*c+2;
    }
    a[c]=ele;
}

void display()
{
    int i;
    for(i=0;i<SIZE;i++)
    {
        if(a[i]==NULL)
            continue;
        printf("a[%d]=%d\n",i,a[i]);
    }
}

void main()
{
    int ch,i,j,ele;
    clrscr();
    for(i=0;i<n;i++)
        a[i]=NULL;
    printf("\n1.bst\n2.display\n");
```

```

for(;;)
{
    printf("\nEnter choice\n");
    scanf("%d",&ch);
    switch(ch)
    {
        case 1:printf("\nEnter no of ele to enter\n");
                scanf("%d",&j);
                printf("\nEnter the array of elements\n");
                for(i=0;i<j;i++)
                {
                    scanf("%d",&ele);
                    bst(ele);
                }
                break;

        case 2:display();
                break;

        case 3: exit(0);
    }
}
}

```