5. symbol table operations

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#include<stdio.h>
#include<stdlib.h>
#include<string.h>

int cnt=0;
struct symtab
{
        char label[20]; int addr;
}sy[50]; void insert();
int search(char *);
void display();
void modify();
void main()
{
int ch,val; char lab[10];
do
{
        printf("\n1.insert\n2.display\n3.search\n4.modify\n5.exit\n");
scanf("%d",&ch);
        switch(ch)
        {
                case 1:
                        insert();
                         break;
                        case 2:
                                display();
                                break;
                case 3:
                        printf("enter the label");
                        scanf("%s",lab);
                        val=search(lab);
                        if(val==1)
                        printf("label is found");
                        else
                        printf("label is not found");
                break;
        case 4:
                        modify();
                break;
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        case 5:
                        exit(0);
                        break;
                }
        }while(ch<5);
}
void insert()
{
        int val;
        char lab[10]; printf("enter the label"); scanf("%s",lab); val=search(lab);
if(val==1)
        printf("duplicate symbol");
        else
        {
                strcpy(sy[cnt].label,lab);
                printf("enter the address");
                scanf("%d",&sy[cnt].addr);
                cnt++;
        }
}
int search(char *s)
{
        int flag=0,i; for(i=0;i<cnt;i++)
        {
                if(strcmp(sy[i].label,s)==0)
                flag=1;
        }
return flag;
}
void modify()
{
        int val,ad,i;
        char lab[10];
        printf("enter the label"); scanf("%s",lab); val=search(lab); if(val==0)
        printf("no such symbol");
        else
        {
                printf("label is found \n");
                printf("enter the address");
                scanf("%d",&ad);
                for(i=0;i<cnt;i++)
```

```
                {
                        if(strcmp(sy[i].label,lab)==0)
                        sy[i].addr=ad;
                }
        }
}
void display()
{
        int i;
        for(i=0;i<cnt;i++)
        printf("%s\t%d\n",sy[i].label,sy[i].addr);
}
```

Output: