25-9-24

Experiment No:-
Absolute Loader

Aim: Implement absolute loader in C programming

Algorithm

1. Start
2. Read the program name from user
3. Open file objectcode.txt
4. Verify the name in objectcode and user entered name.
5. While not end of object program file do
    1. read the record
    2. check if record[0] equal to 'T' then
        1. textAddress[i] = record[i]
        2. increment i and j by one
    3. textAddress[6] = '10'
    4. Address a = strtol(textAddress, NULL, 16)
    5. Set i = 12
    6. While record[i] not equal to '$' do
        1. if record[i] not equal to 'n' then
            1. Display address a, record[i] record[i+1]
            2. Set i = i+2
        2. else i = i+1
6. Close the file
7. Stop

Result : Program to implement absolute loader executed successfully and output obtained.

PROGRAM

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

void main(){
        bool flag=false;
        int i,address;
        char line[100],objname[6],name[20],start[50];
        FILE *objcode=fopen("objcode.txt","r");
        fscanf(objcode,"%s",line);
        printf("Enter program name: ");
        scanf("%s",name);
        for(i=0;i<6&&name[i]!=NULL;i++){
                objname[i]=line[i+2];
                if(name[i]!=line[i+2]){
                        flag=true;
                        break;
                        }
                }
        objname[i]=NULL;
        if (flag){
                printf("Program name mismatch\n");
                return;
                }
        printf("name from obj: %s\n",objname);
        for (i=9;i<15;i++){
                start[i-9]=line[i];
                }
        start[i]='\0';
        address=atoi(start);
        fscanf(objcode,"%s",line);
        while(line[0]=='T'){
                for (i=12;line[i]!=NULL;i+=2){
                        if (line[i]=='^')
                                i++;
                        printf("%d %c%c\n",address++,line[i],line[i+1]);
                        }
                fscanf(objcode,"%s",line);

        fclose(objcode)
```

```
        }
    }
```

INPUT

```
H^TEST**^002000^000023

T^002000^26^000005^5a^332006^442000^532009^572010

E^002000
```

OUTPUT

```
Enter program name: TEST
name from obj: TEST
2000 00
2001 00
2002 05
2003 5a
2004 33
2005 20
2006 06
2007 44
2008 20
2009 00
2010 53
2011 20
2012 09
2013 57
2014 20
2015 10
```