GITHUB MINI PROJECT

MUSIC VINYL MANAGEMENT SYSTEM

NAME: SIDDHARTH SAXENA
REGISTRATION NUMBER: RA2111030010029
SECTION: M1
DEPARTMENT: B.TECH COMPUTER SCIENCE AND ENGINEERING WITH SPECIALIZATION IN CYBERSECURITY

INTRODUCTION:

- The main objective is to make a data management system using file input output.
- With this program we can insert and search for stored music vinyl records.
- The record details include a vinyl code, the name of the vinyl/album and the name of the music artist.
- Data structures are utilized to make the storing and retrieving of data easier.
- A .txt file is used to permanently store the data completely locally on the machine itself.
- An exit option is implemented in the code to exit it easily.

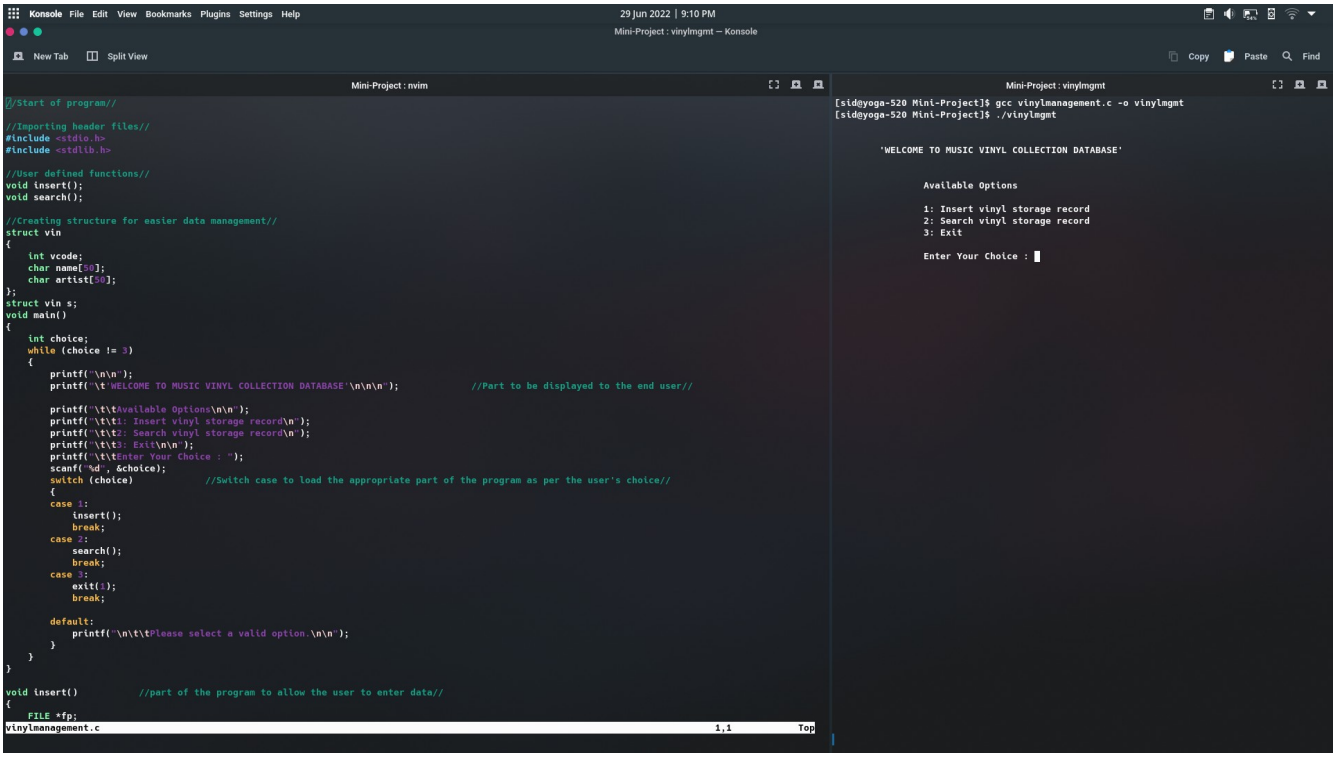
SOURCE CODE

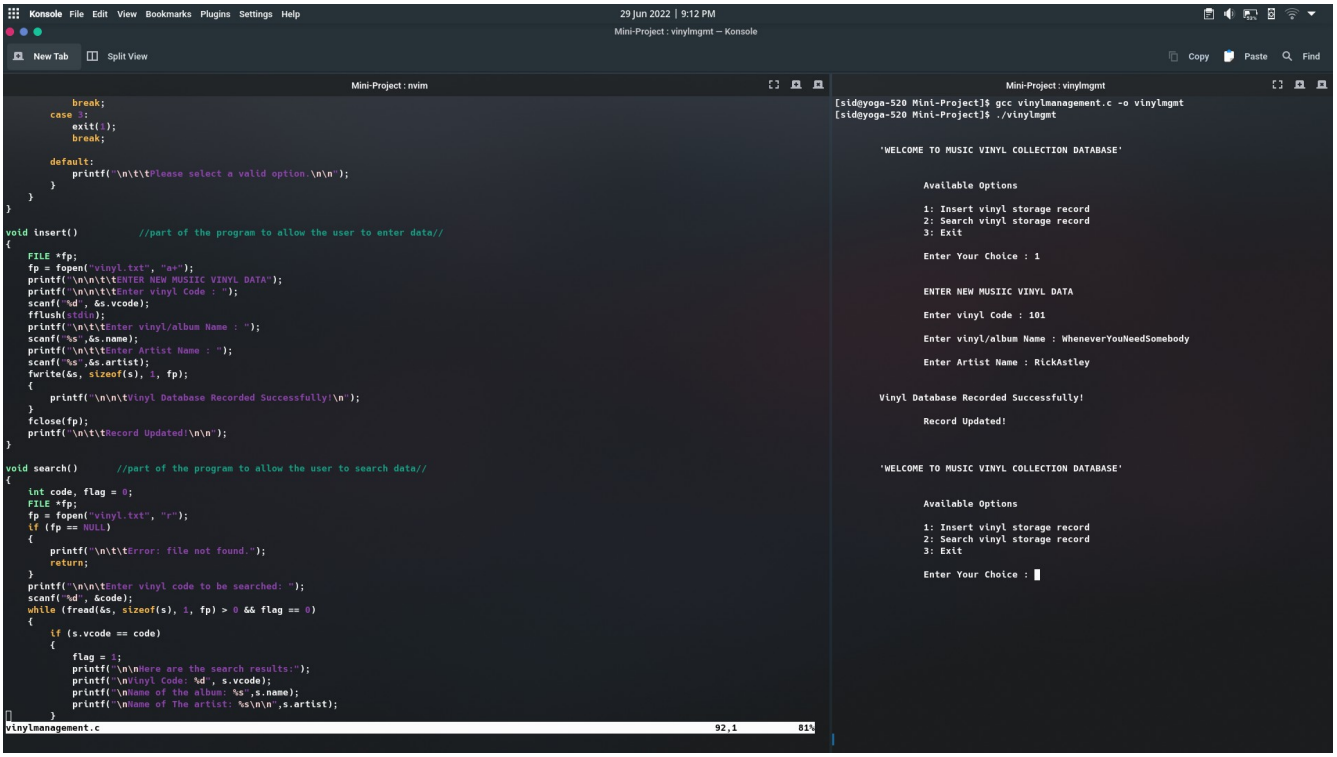
```
//Start of program//

//Importing header files//
#include <stdio.h>
#include <stdlib.h>

//User defined functions//
void insert();
void search();

//Creating structure for easier data management//
struct vin
{
   int vcode;
   char name[50];
   char artist[50];
};
struct vin s;
void main()
{
   int choice;
   while (choice != 3)
   {
      printf("\n\n");
       printf("\t'WELCOME TO MUSIC VINYL COLLECTION DATABASE'\n\n\n");            //Part to be displayed to the end user//

      printf("\t\tAvailable Options\n\n");
      printf("\t\t1: Insert vinyl storage record\n");
      printf("\t\t2: Search vinyl storage record\n");
      printf("\t\t3: Exit\n\n");
      printf("\t\tEnter Your Choice : ");
      scanf("%d", &choice);
       switch (choice)            //Switch case to load the appropriate part of the program as per the user's choice//
      {
      case 1:
         insert();
```

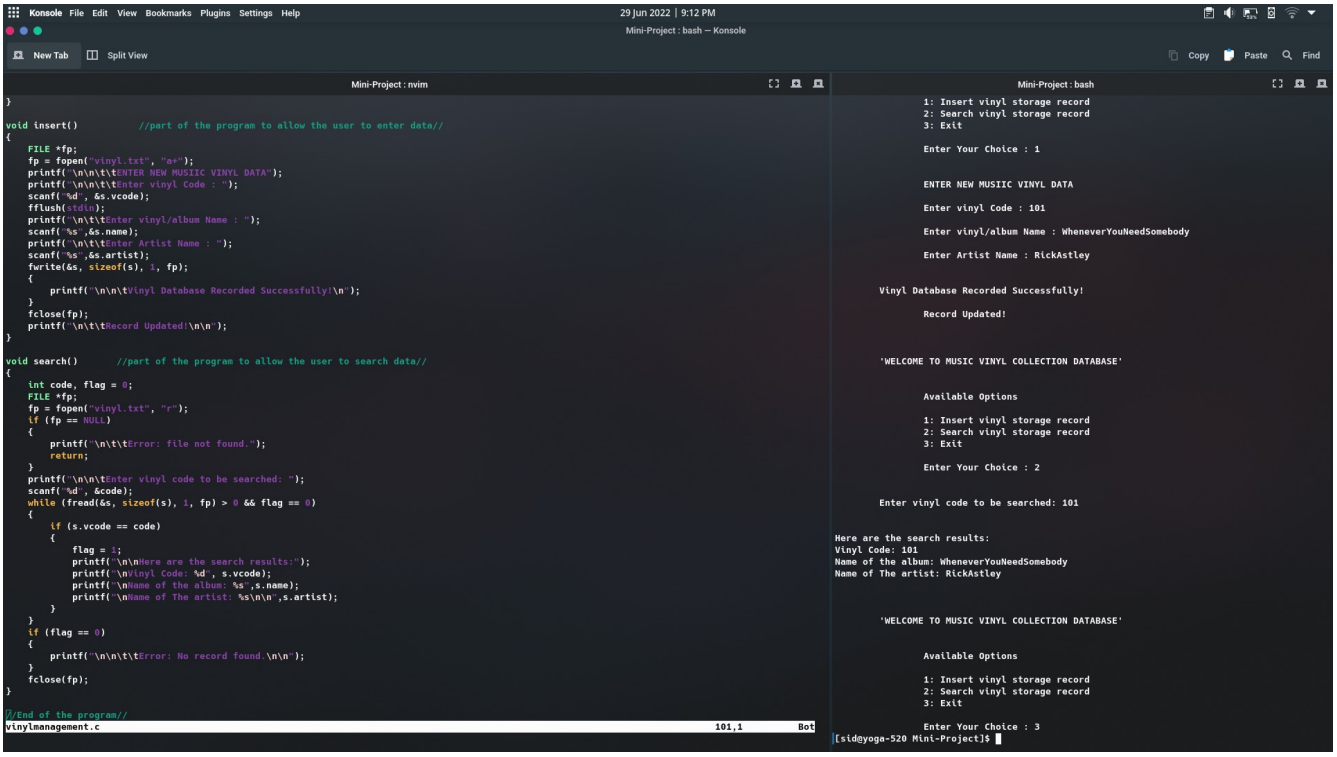
```
            break;
        case 2:
            search();
            break;
        case 3:
            exit(1);
            break;

        default:
            printf("\n\t\tPlease select a valid option.\n\n");
        }
    }
}

void insert()          //part of the program to allow the user to enter data//
{
    FILE *fp;
    fp = fopen("vinyl.txt", "a+");
    printf("\n\n\t\tENTER NEW MUSIIC VINYL DATA");
    printf("\n\n\t\tEnter vinyl Code : ");
    scanf("%d", &s.vcode);
    fflush(stdin);
    printf("\n\t\tEnter vinyl/album Name : ");
    scanf("%s",&s.name);
    printf("\n\t\tEnter Artist Name : ");
    scanf("%s",&s.artist);
    fwrite(&s, sizeof(s), 1, fp);
    {
        printf("\n\n\tVinyl Database Recorded Successfully!\n");
    }
    fclose(fp);
    printf("\n\t\tRecord Updated!\n\n");
}

void search()      //part of the program to allow the user to search data//
{
    int code, flag = 0;
    FILE *fp;
    fp = fopen("vinyl.txt", "r");
    if (fp == NULL)
    {
```

```
        printf("\n\t\tError: file not found.");
        return;
    }
    printf("\n\n\tEnter vinyl code to be searched: ");
    scanf("%d", &code);
    while (fread(&s, sizeof(s), 1, fp) > 0 && flag == 0)
    {
        if (s.vcode == code)
        {
            flag = 1;
            printf("\n\nHere are the search results:");
            printf("\nVinyl Code: %d", s.vcode);
            printf("\nName of the album: %s",s.name);
            printf("\nName of The artist: %s\n\n",s.artist);
        }
    }
    if (flag == 0)
    {
        printf("\n\n\t\tError: No record found.\n\n");
    }
    fclose(fp);
}

//End of the program//
```

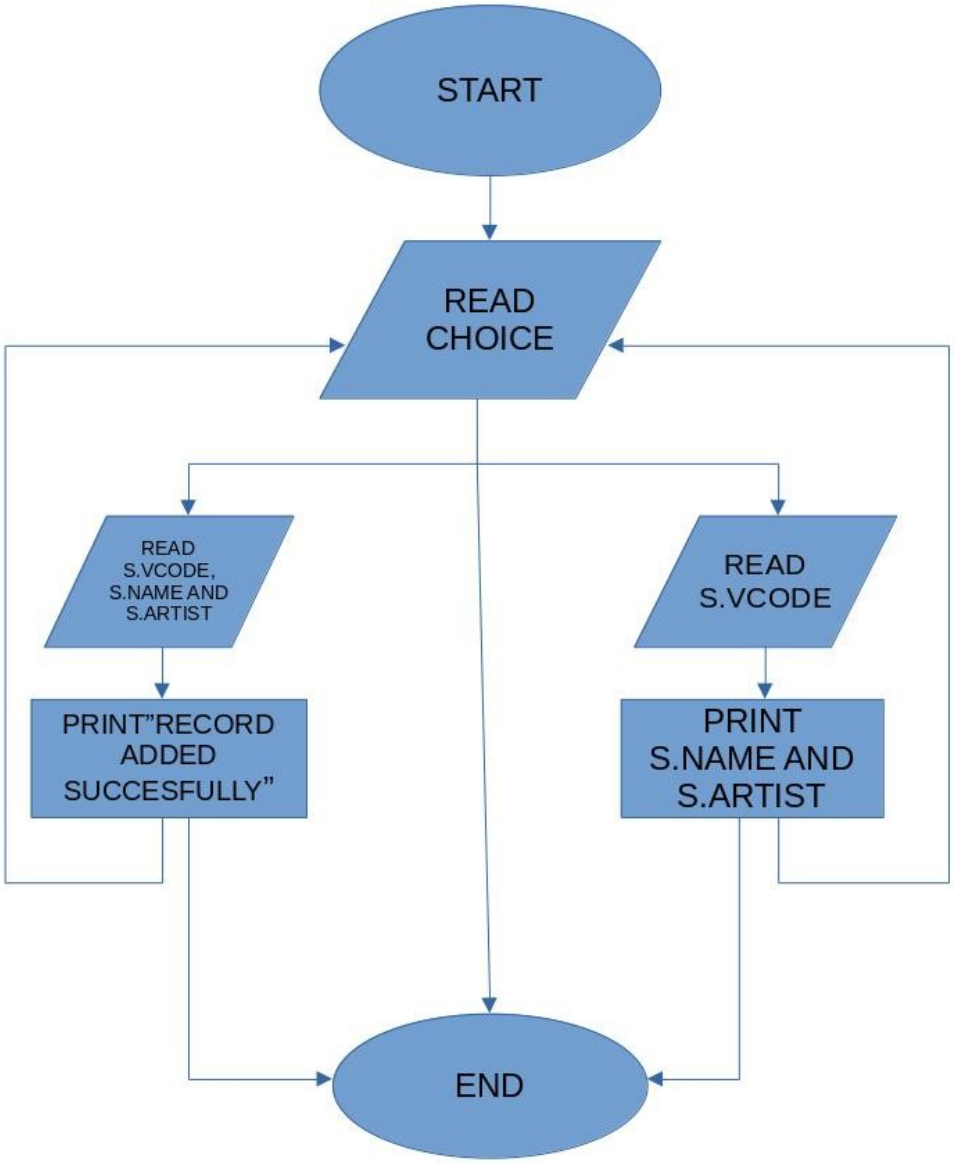
OUTPUT AND SCREENSHOTS






Konsole File Edit View Bookmarks Plugins Settings Help
29 Jun 2022 | 9:12 PM
Mini-Project : bash — Konsole
New Tab
Split View
Copy
Paste
Find
Mini-Project : nvim
}
void insert() //part of the program to allow the user to enter data//
{
FILE *fp;
fp = fopen("vinyl.txt", "a+");
printf("\n\n\t\tENTER NEW MUSIIC VINYL DATA");
printf("\n\n\t\tEnter vinyl Code : ");
scanf("%d", &s.vcode);
fflush(stdin);
printf("\n\t\tEnter vinyl/album Name : ");
scanf("%s",&s.name);
printf("\n\t\tEnter Artist Name : ");
scanf("%s",&s.artist);
fwrite(&s, sizeof(s), 1, fp);
{
printf("\n\n\tVinyl Database Recorded Successfully!\n");
}
fclose(fp);
printf("\n\t\tRecord Updated!\n\n");
}
void search() //part of the program to allow the user to search data//
{
int code, flag = 0;
FILE *fp;
fp = fopen("vinyl.txt", "r");
if (fp == NULL)
{
printf("\n\t\tError: file not found.");
return;
}
printf("\n\n\tEnter vinyl code to be searched: ");
scanf("%d", &code);
while (fread(&s, sizeof(s), 1, fp) > 0 && flag == 0)
{
if (s.vcode == code)
{
flag = 1;
printf("\n\nHere are the search results:");
printf("\nVinyl Code: %d", s.vcode);
printf("\nName of the album: %s",s.name);
printf("\nName of The artist: %s\n\n",s.artist);
}
}
if (flag == 0)
{
printf("\n\n\t\tError: No record found.\n\n");
}
fclose(fp);
}
//End of the program//
vinylmanagement.c 101,1 Bot
Mini-Project : bash
1: Insert vinyl storage record
2: Search vinyl storage record
3: Exit
Enter Your Choice : 1
ENTER NEW MUSIIC VINYL DATA
Enter vinyl Code : 101
Enter vinyl/album Name : WheneverYouNeedSomebody
Enter Artist Name : RickAstley
Vinyl Database Recorded Successfully!
Record Updated!
'WELCOME TO MUSIC VINYL COLLECTION DATABASE'
Available Options
1: Insert vinyl storage record
2: Search vinyl storage record
3: Exit
Enter Your Choice : 2
Enter vinyl code to be searched: 101
Here are the search results:
Vinyl Code: 101
Name of the album: WheneverYouNeedSomebody
Name of The artist: RickAstley
'WELCOME TO MUSIC VINYL COLLECTION DATABASE'
Available Options
1: Insert vinyl storage record
2: Search vinyl storage record
3: Exit
Enter Your Choice : 3
[sid@yoga-520 Mini-Project]$

FLOWCHART


START
READ CHOICE
READ S.VCODE, S.NAME AND S.ARTIST
PRINT"RECORD ADDED SUCCESFULLY"
READ S.VCODE
PRINT S.NAME AND S.ARTIST
END

Project link: https://github.com/sr6865/Mini-Project