A MINI PROJECT ON

CD MANAGEMENT

Submitted by

Batch no's :7 and 10

E. BHUPAL VIKRAM -   17121A1219

E.ADIL AHMED   -   17121A1220

E.KARTHIK KUMAR   -   17121A1221

G.HARITHA   -   17121A1228

G.SREEKANTH   -   17121A1229

G.CHANDRA KANTH -   17121A1230

Department of Information Technology

SREE VIDYANIKETHAN ENGINEERING COLLEGE

(AUTONOMOUS)

(Affiliated to JNTUA Anantapuramu, Approved by AICTE

Accredited by NBA; NAAC with 'A' grade)

Sree Sainath Nagar, A.Rangampet, Near Tirupati - 517 102. A.P.2018-2019

TABLE OF CONTENT

INTRODUCTION

This Document is going to build a CD database application using totally the Linux environment.

ABSTRACT:

Initially for each CD title, This Document choose to store the following:

- The CD catalog number.

- The title.

- The type(classical, pop, rock, etc ,.).

- The composer or artist or author.

For the tracks, This Document will store simply two items:

- Track number and Track name

This software is basically a CD management software which can be used in a CD's store. It keeps the record of all the CD's present in the CD's store and This Document can also add more records for the fresh arrivals. This project can search the CD's available in the store, by various modes like Singer name, CD name.

- The three requirements – updating , searching and displaying the data. All the data you need to store is textual.

MODULES

1. Add Records
2. Remove Records
3. Find CD
4. Update CD
5. Count CD's
6. List Tracks

CONCEPTS:

This program uses the concept of shell programming.

- Functions

- Files

- Command with options(i.e., echo –e , track , etc.,)

- Control structures

Data files used :

- title.cdb , tracks.cdb , temp_file

MODULE DESCRIPTIONS:

Operations on Module1:

Adding the details of a new CD:

The user enters the track information for this CD, catalog name, title, type and artist or composer.

Concepts:

This module uses the concept of shell programming.

- Functions

- Files

- Command with options(i.e., echo –e , track , etc.,)

- Control structures

Operations on Module2:

Modifying the data of an CD:

This allows you to re-enter information for a CD . Notice that you search(using grep) for lines that start (^)with the $cdcatnum folloThis Documentd by a comma ,and that you need to wrap the expansion of $cdcatnum in {}.

Concept:

This module uses the concept of shell programming.

- Functions

- Files

- Command with options(i.e., echo –e , track , etc.,)

- Control structures

Operations on Module3:

Deleting a CD details:

This strips entries from the database files, using grep –v to remove all matching strings. Notice that you must use a temprary file(temp_file).

Concept:

This module uses the concept of shell programming.

- Functions

- Files

- Command with options(i.e., echo –e , track , etc.,)

- Control structures

Operations on Module4:

Searching for a CD:

This searches for the catalog name text in the CD title file, using the grep.

Concepts:

This module uses the concept of shell programming.

- Functions

- Files

- Command with options(i.e., echo –e , track , etc.,)

- Control structures

Operations on Module5:

Displaying the list of all CD's:

This opens the temporary file reads one by one and then displays all the tracks list .

Concepts:

This module uses the concept of shell programming.

- Functions

- Files

- Command with options(i.e., echo –e , track , etc.,)

- Control structures

All the modules uses the data files declared globally.

RESULTS

Figure 3.1 output screen of add new cd

Figure 3.2 output screen of find cd

Figure 3.3 list of tracks

Figure 3.4 output screen of removing a cd

```
 r) Remove
 u) Update track information for
 q) Quit

-e Please enter choice then press return u
Current tracks are:-
list tracks opened

sunn raha :-

Track No.,Title
1,y
2,DJ

-e press return n

This will re-enter the tracks for sunn raha
-e Are you sure? y

Enter track information for this CD
When no more tracks enter q
-e Track , track title? sad
-e Track , track title? q

 a) Add new CD
 f) Find CD
 c) count the CDs and tracks in the catalog
 l) List tracks on q
 r) Remove q
 u) Update track information for q
 q) Quit

-e Please enter choice then press return █
```

Figure 3.5 output screen of update track information

SOURCE CODE

- This system is very simple in design and to implement.

- This project main intention is to make task easy for CD database.

- Easy handling of huge amount of data regarding CD tracks.

PROGRAM:

```
menu_choice=""

current_cd=""

title_file="title.cdb"

tracks_file="tracks.cdb"

temp_file=/tmp/cdb.$$

trap 'rm -f $temp_file'EXIT

get_return() {

echo -e "Press return \c"

read x

return 0

}


get_confirm() {
```

```
echo -e "Are you sure? \c"

while true

do

read x

case "$x" in

y | yes | Y | Yes | YES )

return 0;;

n | no | N | No | NO )

echo

echo "Cancelled"

return 1;;

*) echo "Please enter yes or no" ;;

esac

done

}

set_menu_choice() {

clear

echo "Options :-"

echo ***********
```

```bash
echo "  a) Add new CD "

echo " f) Find CD"

echo " c) Count the CDs and tracks in the catalog"

if [ "$cdcatnum" != "" ]; then

echo " l) List tracks on $cdtitle"

echo " r) Remove $cdtitle"

echo " u) Update track information for $cdtitle"

fi

echo " q) Quit"

echo

echo -e "Please enter choice then press return \c"

read menu_choice

return

}

insert_title() {

echo $* >> $title_file

return

}

insert_track() {
```

```
echo $* >> $tracks_file

return

}

add_record_tracks() {

echo "Enter track information for this CD"

echo "When no more tracks enter q"

cdtrack=1

cdttitle=""

while [ "$cdttitle" != "q" ]

do

echo -e "Track $cdtrack, track title? \c"

read tmp

cdttitle=${tmp%%,*}

if [ "$tmp" != "$cdttitle" ]; then

echo "Sorry, no commas allowed"

continue

fi

if [ -n "$cdttitle" ] ; then

if [ "$cdttitle" != "q" ]; then
```

```
insert_track $cdcatnum,$cdtrack,$cdttitle

fi

else

cdtrack=$((cdtrack-1))

fi

cdtrack=$((cdtrack+1))

done

}

add_records() {

# Prompt for the initial information

echo -e "Enter catalog name \c"

read tmp

cdcatnum=${tmp%%,*}

echo -e "Enter title \c"

read tmp

cdtitle=${tmp%%,*}

echo -e "Enter type \c"

read tmp

cdtype=${tmp%%,*}
```

```
echo -e "Enter artist/composer \c"

read tmp

cdac=${tmp%%,*}

echo About to add new entry

echo "$cdcatnum $cdtitle $cdtype $cdac"

# If confirmed then append it to the titles file

if get_confirm ; then

insert_title $cdcatnum,$cdtitle,$cdtype,$cdac

add_record_tracks

else

remove_records

fi

return

}

find_cd() {

if [ "$1" = "n" ]; then

asklist=n

else

asklist=y
```

```
fi

cdcatnum=""

echo -e "Enter a string to search for in the CD titles \c"

read searchstr

if [ "$searchstr" = "" ]; then

return 0

fi

grep "$searchstr" $title_file > $temp_file

set $(wc -l $temp_file)

linesfound=$l

case "$linesfound" in

0) echo "Sorry, nothing found"

get_return

return 0

;;

1) ;;

2) echo "Sorry, not unique."

echo "Found the following"

cat $temp_file
```

```
get_return

return 0

esac

IFS=","

read cdcatnum cdtitle cdtype cdac < $temp_file

IFS=""

if [ -z "$cdcatnum" ]; then

echo "Sorry, could not extract catalog field from $temp_file"

get_return

return 0

fi

echo

echo Catalog number: $cdcatnum

echo Title: $cdtitle

echo Type: $cdtype

echo Artist/Composer: $cdac

echo

get_return

if [ "$asklist" = "y" ]; then
```

```
echo -e "View tracks for this CD? \c"

read x

if [ "$x" = "y" ]; then

echo

list_tracks

echo

fi

fi

return 1

}

update_cd() {

if [ -z "$cdcatnum" ]; then

echo "You must select a CD first"

find_cd n

fi

if [ -n "$cdcatnum" ]; then

echo "Current tracks are :-"

list_tracks

echo
```

```
echo "This will re-enter the tracks for $cdtitle"

get_confirm && {

grep -v "^${cdcatnum}," $tracks_file > $temp_file

mv $temp_file $tracks_file

echo

add_record_tracks

}

fi

return

}

count_cds() {

set $(wc -l $title_file)

num_titles=$l

set $(wc -l $tracks_file)

num_tracks=$l

echo found $num_titles CDs, with a total of $num_tracks tracks

get_return

return

}
```

```
list_tracks() {

if [ "$cdcatnum" = "" ]; then

echo no CD selected yet

return

else

grep "^${cdcatnum}," $tracks_file > $temp_file

num_tracks=$(wc -l $temp_file)

if [ "$num_tracks" = "0" ]; then

echo no tracks found for $cdtitle

else {

echo

echo "$cdtitle :-"

echo

cut -f 2- -d , $temp_file

echo

} | ${PAGER:-more}

fi

fi

get_return
```

```
return

}

rm -f $temp_file

if [ ! -f $title_file ]; then

touch $title_file

fi

if [ ! -f $tracks_file ]; then

touch $tracks_file

fi

# Now the application proper

clear

echo

echo

echo "Mini CD manager"

sleep 1

quit=n

while [ "$quit" != "y" ];

do

set_menu_choice
```

```
case "$menu_choice" in

a) add_records;;

r) remove_records;;

f) find_cd y;;

u) update_cd;;

c) count_cds;;

l) list_tracks;;

b)

echo

more $title_file

echo

get_return;;

q | Q ) quit=y;;

*) echo "Sorry, choice not recognized";;

esac

done

#Tidy up and leave

rm -f $temp_file

echo "Finished"
```

exit 0

a) Add new CD

f) Find CD

c) Count the CDs and tracks in the catalog

l) List tracks on ring ring

r) Remove ring ring

u) Update track information for ring ring

q) Quit

Please enter choice then press return a

Enter catalog name CD234

Enter title tring tring

Enter type hiphop

Enter artist/composer sony

About to add new entry

CD234 tring tring hiphop sony

Are you sure? y

Enter track information for this CD

When no more tracks enter q

Track 1, track title? y

Track 2, track title? y

Track 3, track title? sad

Track 4, track title? q

Options :-

2.c alarm.c a.out cbs1.c cbs2.c cbs3.c cbs4.c ch6s4F1 chapter_4 e1.c exvp1.c f1 f2 f3 f5 f6 file.out hari hari.sh p p1 pi pj project.sh s1.sh s2.sh s3.sh s4.sh s5.sh signal.c student.txt title.cdb track.cdb tracks.cdb uniq.c w1 w2 w3.c week week10a week10ab week10ab.c week10b.c week11a week11a.c week11b week11b.c week12a.c week12b.c week1.c week2.c week3.c week4.c week6a.c week6b.c week7a.c week7b.c week7c.c week7d.c week8a.c week8b1.c week8b2.c week8b3.c week8b4.c week9a.c week9b.c weekf.c weekj.c weekl1a.c weel11a.c weel1a.c wekf.c zz.c

 a) Add new CD

 f) Find CD

 c) Count the CDs and tracks in the catalog

 l) List tracks on tring tring

 r) Remove tring tring

 u) Update track information for tring tring

 q) Quit

Please enter choice then press return f

Enter a string to search for in the CD titles CD234

Catalog number: CD234

Title: tring tring

Type: hiphop

Artist/Composer: sony

Press return ^C

[17121a1228@linuxserver ~]$ sh hari.sh

Mini CD manager

Options :-

2.c alarm.c a.out cbs1.c cbs2.c cbs3.c cbs4.c ch6s4F1 chapter_4 e1.c exvp1.c f1 f2 f3 f5 f6 file.out hari hari.sh p p1 pi pj project.sh s1.sh s2.sh s3.sh s4.sh s5.sh signal.c student.txt title.cdb track.cdb tracks.cdb uniq.c w1 w2 w3.c week week10a week10ab week10ab.c week10b.c week11a week11a.c week11b week11b.c week12a.c

week12b.c week1.c week2.c week3.c week4.c week6a.c week6b.c
week7a.c week7b.c week7c.c week7d.c week8a.c week8b1.c
week8b2.c week8b3.c week8b4.c week9a.c week9b.c weekf.c weekj.c
weekl1a.c weel11a.c weel1a.c wekf.c zz.c

 a) Add new CD

 f) Find CD

 c) Count the CDs and tracks in the catalog

 q) Quit

Please enter choice then press return f

Enter a string to search for in the CD titles CD234

Catalog number: CD234

Title: tring tring

Type: hiphop

Artist/Composer: sony

Press return n

.View tracks for this CD? c.

y

tring tring :-

1,y

2,y

3,sad

Press return n

Options :-

2.c alarm.c a.out cbs1.c cbs2.c cbs3.c cbs4.c ch6s4F1 chapter_4 e1.c exvp1.c f1 f2 f3 f5 f6 file.out hari hari.sh p p1 pi pj project.sh s1.sh s2.sh s3.sh s4.sh s5.sh signal.c student.txt title.cdb track.cdb tracks.cdb uniq.c w1 w2 w3.c week week10a week10ab week10ab.c week10b.c week11a week11a.c week11b week11b.c week12a.c week12b.c week1.c week2.c week3.c week4.c week6a.c week6b.c week7a.c week7b.c week7c.c week7d.c week8a.c week8b1.c week8b2.c week8b3.c week8b4.c week9a.c week9b.c weekf.c weekj.c weekl1a.c weel11a.c weel1a.c wekf.c zz.c

  a) Add new CD

f) Find CD

c) Count the CDs and tracks in the catalog

l) List tracks on tring tring

r) Remove tring tring

u) Update track information for tring tring

q) Quit

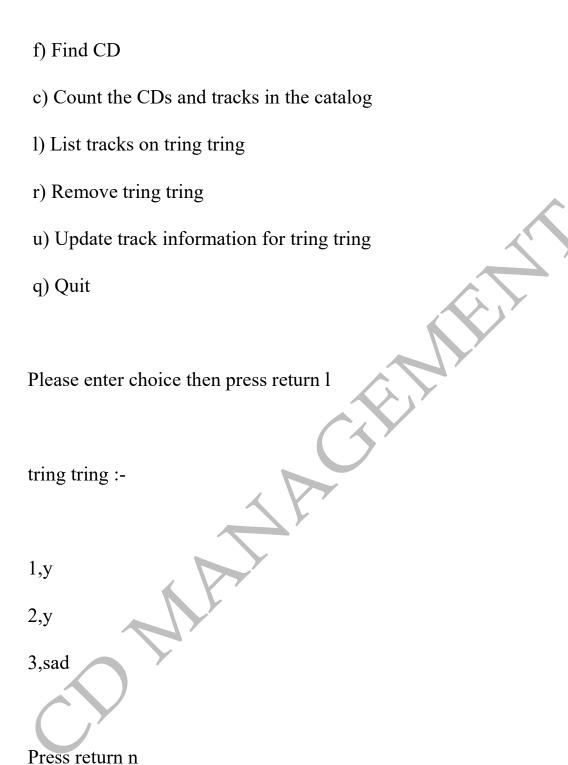Please enter choice then press return c

found CDs, with a total of tracks

Press return n

Options :-

2.c alarm.c a.out cbs1.c cbs2.c cbs3.c cbs4.c ch6s4F1 chapter_4 e1.c exvp1.c f1 f2 f3 f5 f6 file.out hari hari.sh p p1 pi pj project.sh s1.sh s2.sh s3.sh s4.sh s5.sh signal.c student.txt title.cdb track.cdb tracks.cdb uniq.c w1 w2 w3.c week week10a week10ab week10ab.c week10b.c week11a week11a.c week11b week11b.c week12a.c week12b.c week1.c week2.c week3.c week4.c week6a.c week6b.c week7a.c week7b.c week7c.c week7d.c week8a.c week8b1.c week8b2.c week8b3.c week8b4.c week9a.c week9b.c weekf.c weekj.c weekl1a.c weel11a.c weel1a.c wekf.c zz.c

a) Add new CD

f) Find CD

c) Count the CDs and tracks in the catalog

l) List tracks on tring tring

r) Remove tring tring

u) Update track information for tring tring

q) Quit

Please enter choice then press return l

tring tring :-

1,y

2,y

3,sad

Press return n

Options :-

2.c alarm.c a.out cbs1.c cbs2.c cbs3.c cbs4.c ch6s4F1 chapter_4 e1.c
exvp1.c f1 f2 f3 f5 f6 file.out hari hari.sh p p1 pi pj project.sh s1.sh

s2.sh s3.sh s4.sh s5.sh signal.c student.txt title.cdb track.cdb
tracks.cdb uniq.c w1 w2 w3.c week week10a week10ab week10ab.c
week10b.c week11a week11a.c week11b week11b.c week12a.c
week12b.c week1.c week2.c week3.c week4.c week6a.c week6b.c
week7a.c week7b.c week7c.c week7d.c week8a.c week8b1.c
week8b2.c week8b3.c week8b4.c week9a.c week9b.c weekf.c weekj.c
weekl11a.c weel11a.c weel1a.c wekf.c zz.c

a) Add new CD

f) Find CD

c) Count the CDs and tracks in the catalog

l) List tracks on tring tring

r) Remove tring tring

u) Update track information for tring tring

q) Quit

Please enter choice then press return u

Current tracks are :-

tring tring :-

1,y

2,y

3,sad

Press return n

This will re-enter the tracks for tring tring

Are you sure? y

Enter track information for this CD

When no more tracks enter q

Track 1, track title?

Track 1, track title? abc

Track 2, track title? def

Track 3, track title? sdf

Track 4, track title? q

Options :-

2.c alarm.c a.out cbs1.c cbs2.c cbs3.c cbs4.c ch6s4F1 chapter_4 e1.c exvp1.c f1 f2 f3 f5 f6 file.out hari hari.sh p p1 pi pj project.sh s1.sh

s2.sh s3.sh s4.sh s5.sh signal.c student.txt title.cdb track.cdb
tracks.cdb uniq.c w1 w2 w3.c week week10a week10ab week10ab.c
week10b.c week11a week11a.c week11b week11b.c week12a.c
week12b.c week1.c week2.c week3.c week4.c week6a.c week6b.c
week7a.c week7b.c week7c.c week7d.c week8a.c week8b1.c
week8b2.c week8b3.c week8b4.c week9a.c week9b.c weekf.c weekj.c
weekl1a.c weel11a.c weel1a.c wekf.c zz.c

 a) Add new CD

 f) Find CD

 c) Count the CDs and tracks in the catalog

 l) List tracks on tring tring

 r) Remove tring tring

 u) Update track information for tring tring

 q) Quit

Please enter choice then press return l

tring tring :-

1,abc

2,def

3,sdf

Press return n

Options :-

2.c alarm.c a.out cbs1.c cbs2.c cbs3.c cbs4.c ch6s4F1 chapter_4 e1.c exvp1.c f1 f2 f3 f5 f6 file.out hari hari.sh p p1 pi pj project.sh s1.sh s2.sh s3.sh s4.sh s5.sh signal.c student.txt title.cdb track.cdb tracks.cdb uniq.c w1 w2 w3.c week week10a week10ab week10ab.c week10b.c week11a week11a.c week11b week11b.c week12a.c week12b.c week1.c week2.c week3.c week4.c week6a.c week6b.c week7a.c week7b.c week7c.c week7d.c week8a.c week8b1.c week8b2.c week8b3.c week8b4.c week9a.c week9b.c weekf.c weekj.c weekl1a.c weel11a.c weel1a.c wekf.c zz.c

 a) Add new CD

 f) Find CD

 c) Count the CDs and tracks in the catalog

 l) List tracks on tring tring

 r) Remove tring tring

 u) Update track information for tring tring

 q) Quit

Please enter choice then press return r

hari.sh: line 225: remove_records: command not found

Options :-

2.c alarm.c a.out cbs1.c cbs2.c cbs3.c cbs4.c ch6s4F1 chapter_4 e1.c exvp1.c f1 f2 f3 f5 f6 file.out hari hari.sh p p1 pi pj project.sh s1.sh s2.sh s3.sh s4.sh s5.sh signal.c student.txt title.cdb track.cdb tracks.cdb uniq.c w1 w2 w3.c week week10a week10ab week10ab.c week10b.c week11a week11a.c week11b week11b.c week12a.c week12b.c week1.c week2.c week3.c week4.c week6a.c week6b.c week7a.c week7b.c week7c.c week7d.c week8a.c week8b1.c week8b2.c week8b3.c week8b4.c week9a.c week9b.c weekf.c weekj.c weekl1a.c weel11a.c weel1a.c wekf.c zz.c

 a) Add new CD

 f) Find CD

 c) Count the CDs and tracks in the catalog

 l) List tracks on tring tring

 r) Remove tring tring

 u) Update track information for tring tring

 q) Quit

Please enter choice then press return q

Finished

CONCLUSION

- This system provides an easy way for the operator to interact with the database and to manipulate the data in the database.

- The operator can add, delete and update the records in the database with ease.

- Provide easy, accurate, unambiguous and faster data access.

REFERENCES

The project is referred from :

   Richard Petersen, Linux: The complete Refrence, Tata McGraw-Hill , Sixth Edition,2007.

   Sumitabha Das, Your Unix:The ultimate Guide, Tata McGraw-Hill , 2007.