

```

#!/bin/bash

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#L - 10

RED="\e[31m"
GREEN="\e[32m"
ENDCOLOR="\e[0m"
YELLOW="\e[33m"

createf(){
    #echo
    "\n${YELLOW}*****${ENDCOLOR}"
    echo -e -n "${GREEN}\nEnter file name : ${ENDCOLOR}"
    read file_name

    # Checking if file already exists
    search=`ls | grep $file_name | wc -l`

    if (( $search > 0 ))
    then
        fname=$file_name
        echo -e "${GREEN}Selected file named: $fname ${ENDCOLOR}"
    else
        fname=$file_name
        touch $fname.txt
        echo -e "${GREEN}Created file named: $fname ${ENDCOLOR}"

        echo -e "${GREEN}MODELNO|TYPE|MODELNAME${ENDCOLOR}" >> $fname.txt

    fi
}

displayf(){
    echo -e
    "\n${YELLOW}*****${ENDCOLOR}"
    echo -e "\n${GREEN}Current Address Book is shown below \n${ENDCOLOR}"
    cat $fname.txt | column -t -s "|" | sort
    echo -e
    "\n${YELLOW}*****${ENDCOLOR}"
}

insertf(){
    echo -e
    "${YELLOW}*****${ENDCOLOR}"
    echo -e "\nInserting a new Record${ENDCOLOR}"

    echo -n "Enter Model no. : "

```

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while(true)
do
    read modno
    if [ ${#modno} -gt 0 ]
    then

        break
    else
        echo -e "${RED}Model no. cannot be empty${ENDCOLOR}"
    fi
done

echo -e -n "${GREEN}Enter type : ${ENDCOLOR}"
read type

echo -n -e "${GREEN}Enter model name : ${ENDCOLOR}"
read mname

echo -e "${GREEN}\nEntering record \n$modno \t $type \t
$mname${ENDCOLOR}"
echo "$modno|$type|$mname" >> $fname.txt
}

deletef(){
    echo -e
"${YELLOW}\n*****${ENDCOLOR}"
    echo -e -n "${GREEN}Enter the record to be deleted : ${ENDCOLOR}"
    read delrec
    flag=`cat $fname.txt | grep $delrec | wc -l`

    if [ $flag -eq 1 ] #checking valid Record
    then
        deleted_item=`cat $fname.txt | grep $delrec`
        sed -i "/^$delrec/d" $fname.txt
        # Deleting Record

        echo -e "${GREEN}Record Deleted Successfully\n Record: $deleted_item
${ENDCOLOR}"

    else
        echo -e "${RED}Entered Record doesn't exist!!!${ENDCOLOR}"
    fi
    echo -e
"${YELLOW}\n*****${ENDCOLOR}"
}

updatef(){

```

```

    echo -e
"${YELLOW}\n*****${ENDCOLOR}"
    echo -e -n "${GREEN}Enter the Model no to be Updated : ${ENDCOLOR}"
    read uprec
    flag=`cat $fname.txt | grep $uprec | wc -l`

    if [ $flag -eq 0 ] #checking valid Record
    then
        echo -e "${RED}Entered Model no doesn't exist, Check
Again!!!${ENDCOLOR}"
    else
        old=`cat $fname.txt | grep $uprec`
        echo -e "${GREEN}Enter the following values to modify the
record:${ENDCOLOR}"

        echo -e -n "${GREEN}Enter type : "
        read type

        echo -n -e "${GREEN}Enter model name : "
        read mname

        echo -e "${GREEN}\Updating record \n$uprec \t $type \t $mname"
    fi
}

searchf(){
    echo -e "\n*****"
    echo -e -n "${GREEN}Enter the record to be searched : ${ENDCOLOR}"
    read searchRec
    grep $searchRec $fname.txt
    echo -e "*****"
}

exitf(){
    echo -e
"${YELLOW}*****${ENDCOLOR}"
    echo -e "                Exiting                "
    echo -e
"${YELLOW}*****${ENDCOLOR}"
}

createf

while(true)
do
    # print the menu

```

```

        echo -e
"\n${YELLOW}*****${ENDCOLOR}"
        echo -e
"${YELLOW}|                MENU                |${ENDCOLOR}"
        echo -e
"${YELLOW}*****${ENDCOLOR}"
        echo -e "${YELLOW}|                1) Create or Select Address
book      |${ENDCOLOR}"
        echo -e "${YELLOW}|                2) View Address
book      |${ENDCOLOR}"
        echo -e "${YELLOW}|                3) Insert a
Record    |${ENDCOLOR}"
        echo -e "${YELLOW}|                4) Delete a
Record    |${ENDCOLOR}"
        echo -e "${YELLOW}|                5) Update a
Record    |${ENDCOLOR}"
        echo -e "${YELLOW}|                6) Search a
Record    |${ENDCOLOR}"
        echo -e "${YELLOW}|                7)
Exit      |${ENDCOLOR}"
        echo -e
"${YELLOW}*****${ENDCOLOR}"
        echo -e -n "${GREEN}\nEnter your choice : ${ENDCOLOR}"
        read choice

#switch case
case "$choice" in
    1)
        createf
        ;;
    2)
        displayf
        ;;
    3)
        insertf
        ;;
    4)
        deletef
        ;;
    5)
        updatef
        ;;
    6)

```

```

        searchf
    ;;

    7)
        exitf
        break
    ;;

    *)
        echo -e "${RED}Invalid Input!!!${ENDCOLOR}"
    ;;
esac
done

```

```

Ubuntu
slypher@Slypher:~$ cd 33228
slypher@Slypher:~/33228$ chmod +x optidb.sh
slypher@Slypher:~/33228$ ./optidb.sh

Enter file name : optidb
Selected file named: optidb

*****
|                MENU                |
*****
|  1) Create or Select Address book  |
|  2) View Address book              |
|  3) Insert a Record               |
|  4) Delete a Record               |
|  5) Update a Record               |
|  6) Search a Record               |
|  7) Exit                          |
*****

Enter your choice : 2

*****

Current Address Book is shown below

1      lens      vogue
2      frame    titan
3      lens      puma
vogue          best  new

*****

*****
|                MENU                |
*****
|  1) Create or Select Address book  |
|  2) View Address book              |
|  3) Insert a Record               |
|  4) Delete a Record               |
|  5) Update a Record               |
|  6) Search a Record               |
|  7) Exit                          |
*****

```

Enter your choice : 1

Enter file name : database
Created file named: database

```
*****
|                               |
|             MENU             |
|                               |
| 1) Create or Select Address book |
| 2) View Address book           |
| 3) Insert a Record             |
| 4) Delete a Record             |
| 5) Update a Record             |
| 6) Search a Record             |
| 7) Exit                       |
|                               |
*****
```

Enter your choice : 3

Inserting a new Record
Enter Model no. : 332
Enter type : special
Enter model name : vogue

Entering record
332 special vogue

```
*****
|                               |
|             MENU             |
|                               |
| 1) Create or Select Address book |
| 2) View Address book           |
| 3) Insert a Record             |
| 4) Delete a Record             |
| 5) Update a Record             |
| 6) Search a Record             |
| 7) Exit                       |
|                               |
*****
```

Enter your choice : 5

Enter the Model no to be Updated : 332

```
*****
Enter the Model no to be Updated : 332
Enter the following values to modify the record:
Enter type : rented
Enter model name : Titan
\Updating record
332      rented      Titan
```

```
*****
|                               |
|             MENU             |
|                               |
| 1) Create or Select Address book |
| 2) View Address book           |
| 3) Insert a Record             |
| 4) Delete a Record             |
| 5) Update a Record             |
| 6) Search a Record             |
| 7) Exit                       |
|                               |
*****
```



```
Inserting a new Record
Enter Model no. :
Model no. cannot be empty
```

```
Model no. cannot be empty
12
Enter type : Round
Enter model name : Rayban
```

```
Entering record
12      Round      Rayban
```

```
*****
|                               |
|             MENU             |
|                               |
| 1) Create or Select Address book |
| 2) View Address book           |
| 3) Insert a Record             |
| 4) Delete a Record             |
| 5) Update a Record             |
| 6) Search a Record             |
| 7) Exit                       |
|                               |
*****
```

```
Enter your choice : 2
```

```
*****
```

```
Current Address Book is shown below
```

MODELNO	TYPE	MODELNAME
12	Round	Rayban
332	special	vogue

```
*****
```

```
*****
|                               |
|             MENU             |
|                               |
| 1) Create or Select Address book |
| 2) View Address book           |
| 3) Insert a Record             |
| 4) Delete a Record             |
| 5) Update a Record             |
|                               |
*****
```

```
| 6) Search a Record           |
| 7) Exit                     |
|                               |
*****
```

```
Enter your choice : 4
```

```
*****
```

```
Enter the record to be deleted : 7
Entered Record doesn't exist!!!
```

```
*****
```




Ubuntu



Enter the record to be deleted : 7

Entered Record doesn't exist!!!

| MENU |

| 1) Create or Select Address book |

| 2) View Address book |

| 3) Insert a Record |

| 4) Delete a Record |

| 5) Update a Record |

| 6) Search a Record |

| 7) Exit |

Enter your choice : 4

Enter the record to be deleted : 12

Record Deleted Successfully

Record: 12|Round|Rayban

| MENU |

| 1) Create or Select Address book |

| 2) View Address book |

| 3) Insert a Record |

| 4) Delete a Record |

| 5) Update a Record |

| 6) Search a Record |

| 7) Exit |

Enter your choice : 7

Exiting
