

PRISON MANAGEMENT SYSTEM

OBJECTIVE :

To make a system that can manage the records of the prisoner.

INTRODUCTION :

- This system can be used to manage the record of the prisoners by the authorities.
- It has various functions like to add a record, view the information of the prisoners altogether, edit the record, delete a record and search a record.
- Each submenu has a particular function which are as follows :

1. **addRecord**

It is used to add information of prisoners in the system like name, gender, age, weight, height, crime, lawyer, conviction, the date when punishment started and the date when punishment ended.

2. **searchRecord**

It is used to search information of prisoners in the system and is then displayed on the screen.

3. **editRecord**

It is used to edit information of the prisoner in the system which can be done in any category and also the whole record can be edited at once which is then stored in the file.

4. **viewRecord**

It is used to view the information of all prisoners at once in a tabular form.

5. **deleteRecord**

It is used to delete a particular record of a prisoner from the system.

METHODOLOGY :

Pseudocode :

Login Form

The code is for a program that will display the login menu.

The has to enter the username and password

If the systemUsername and inputUsername is same and the systemPassword and inputPasswod are same then

 You will enter the main menu(and 1 is returned to the login function)

If they are not same then

 Then you will have to again write the credentials as they were wrong previously

The user will be given three chances for entering the correct credentials as it is the maximum limit

Main

When 1 is returned by login then the main menu is opened.

Prison management system is printed along with the different submenus like addRecord, searchRecord, editRecord, viewRecord, deleteRecord and exit and each sunmenu has a number assigned to it.

Then the user is asked to enter their choice and then the particular menu is opened according to the choice.

If addRecord is chosen then the add menu is opened and so on.

If the exit menu is chosen the thank you is displayed on the screen.

If any other choice is entered then it shows that the choice is invalid.

AddRecord

The code is for a program that will display an add menu.

Next a pointer named fp is assigned to the file

 If it is equal to null than

 it doesn't exist

If is not equal to Null than

 The file named "PrisonRecord" can be opened

The the system asks to enter the prisoner's ID

If the system ID and the input ID are equal then

 The record already exists

If both are not equal

 Then the system asks to enter the information of the prisoner.

After filling information once, the system asks whether you want to add another record or not

If yes then

The above process will be repeated once again

If no then

The file will be closed using fclose.

SearchRecord

The code is for a program that will display a search menu.

Next a pointer named fp is assigned to the file.

The file named as "PrisonRecord" will be opened using fopen

Then the user has to enter the prisoner ID which has to be searched.

The "PrisonRecord" file is read by using the function fread and if the input ID is matched with anyID of the system then

The record is displayed

Else

The record does not exist in the system

After searching the information once, the system asks whether the user wants to search another record or not

If yes then

The above process will be repeated once again.

If no then

The file will be closed using fclose.

EditRecord

The code is for a program that will display an edit menu.

The the system asks to enter the prisoner's ID

Next a pointer named fp is assigned to the file named "PrisonRecord"

If it is equal to null than

File doesn't exist

If is not equal to Null than

The file named "PrisonRecord" will be opened

A pointer named ft is assigned to a file named "temp" which is empty

If it is equal to null than

File doesn't exist

If is not equal to Null than

The file named "temp" will be opened

The "PrisonRecord" file is read by using the function fread

Then if the input ID is matched with anyID of the system then

The old record of the prisoner and the categories in which changes can be made are displayed.(Categories are assigned from numbers 1 to 12)

If they are not matched then

The record does not exist.
Continuing the case when both ID's are matched
The user is asked to enter the choice of category which they want to edit or the whole record can also be edited.
Then the user can enter the new data of the particular category or the whole record.
If the user enters the number which is not for the categories i.e, not from 1 to 12 then the system shows that something wrong is typed so please try again.
The new edited record is then printed on the screen
The new edited record and the untouched records are written in the "temp" file using fwrite.
Then both the files are closed using fclose.
"PrisonRecord" file is deleted and the "temp" file is renamed as "PrisonRecord".
After editing the information once, the system asks whether the user wants to edit another record or not
If yes then
 The above process will be repeated once again.
If no then
 Then the process will not be repeated again.
The user can then press any key to exit this menu.

ViewRecord

The code is for a program that will display the list of prisoners with their details.
Next a pointer named fp is assigned to the file named "PrisonRecord" and it is opened using fopen.
Then the name of categories of information is printed.
The file "PrisonRecord" is read using the function fread and the information of all prisoners in different categories is printed.
The file is closed using the fclose function.
The user can then press any key to exit this menu.

DeleteRecord

The code is for a program that will display a delete menu.
The user has to enter the password and
If systemPassword and inputPassword are same then
 Access is granted
If they are not same then
 Access is not granted
After getting the access a pointer named fp is assigned to the file named "PrisonRecord"
 If it is equal to null then
 File doesn't exist
 If is not equal to Null then

The file named "PrisonRecord" will be opened
A pointer named ft is assigned to a file named "temp" which is empty
If it is equal to null than
File doesn't exist
If is not equal to Null than
The file named "temp" will be opened
The ID of the record which has to be deleted is entered by the user.
The file "PrisonRecord" is read using the fread function.
The input ID is compared with each and every ID which is stored in the system then
The ID which are not matched with input ID
Are written in the temp file using fwrite
The ID which is matched
Is given a flag named "recordEntry" and its value is increased to 1.
Both the files are closed.
"PrisonRecord" file is deleted and the "temp" file is renamed as "PrisonRecord".
Then if the ID has the flag named "recordEntry" with value 1 the system shows that
The record is deleted
Else the system show that
The record does not exist in the system
After deleting the record once, the system asks whether the user wants to delete another record
or not
If yes then
The above process will be repeated once again.
If no then
Then the process will not be repeated again.
The user can then press any key to exit this menu.

User Credentials :

Username : admin

Password : 1234

Login Form

Case: Login Successful

```
***** LOGIN FORM *****

ENTER USERNAME: admin

ENTER PASSWORD: 1234

Welcome to prison management system !! Your login was successful

Press any key to continue..
```

Case: Login Failed

```
***** LOGIN FORM *****

ENTER USERNAME: admin

ENTER PASSWORD: 167

Invalid Credentials !! Please Check Username and password

***** LOGIN FORM *****

ENTER USERNAME: admin

ENTER PASSWORD: 178

Invalid Credentials !! Please Check Username and password

***** LOGIN FORM *****

ENTER USERNAME: rgb

ENTER PASSWORD: wrpth

Invalid Credentials !! Please Check Username and password

You have reached maximum number of attempts !! Please try later.

Main Process returned 0 (0x0)  execution time : 16.450 s
Press any key to continue.
```

```
*****
*PRISON MANAGEMENT SYSTEM*
*****

MAIN MENU:

Add Record      [1]
Search Record   [2]
Edit Record     [3]
View Record     [4]
Delete Record   [5]
Exit            [6]

Enter Your Choice: _
```

Add Menu

Case: Record Already Exists

```
*****
*THE ADD MENU*
*****

Enter Prisoner ID: 101

The record already exists.

Would you like to continue to add another record...(Y/N) N

Press any key to exit...
```

Case: New Record Added

THE ADD MENU

Enter Prisoner ID: 103

Enter Prisoner Name: Naresh

Enter Gender: Male

Enter Age: 45

Enter Weight: 67

Enter Height: 5.7

Enter Crime: Fraud

Enter Lawyer: Suresh

Enter Conviction: Prison

Enter The Date Punishment Started at: 09/04/2018

Enter The Date Punishment Ends at: 11/08/2021

The record is added...

Would you like to continue to add another record...(Y/N) n

Press any key to exit...

Search Menu

Case: Record Exists

```
*****
*THE SEARCHING MENU*
*****

Enter Prisoner ID: 103

The Record is:

Prisoner's Name: Naresh
Prisoner's Gender: Male
Prisoner's Age: 45
Prisoner's Weight: 67
Prisoner's Height: 5.7
Prisoner's Crime: Fraud
Prisoner's Lawyer: Suresh
Prisoner's Conviction: Prison
The Date Punishment Started at: 09/04/2018
The Date Punishment Ends at: 11/08/2021

Would you like to continue searching...(Y/N):
```

Case: Record Does Not Exist

```
*****
*THE SEARCHING MENU*
*****

Enter Prisoner ID: 110

This record does not exist in the system. Please check and retry again!

Would you like to continue searching...(Y/N):_
```

Edit Menu

```
*****
*THE EDITING MENU*
*****
```


EDITING COMPLETED...

THE NEW RECORD IS

Prisoner's Name: Naresh

Prisoner's Gender: Male

Prisoner's Age: 53

Prisoner's Weight: 67

Prisoner's Height: 5.7

Prisoner's Crime: Fraud

Prisoner's Lawyer: Suresh

Prisoner's Conviction: Prison

The Date Punishment Started at: 09/04/2018

The Date Punishment Ends at: 11/08/2021

Would you like to edit another record...(Y/N)

```
*****
*THE EDITING MENU*
*****
```

Enter ID: 102

```
-----
THE OLD RECORD WAS:
-----
```

Prisoner's Name: Priya
Prisoner's Gender: Female
Prisoner's Age: 26
Prisoner's Weight: 64
Prisoner's Height: 5.1
Prisoner's Crime: Robbery
Prisoner's Lawyer: Paresh
Prisoner's Conviction: Prison
The Date Punishment Started at: 06/06/2019
The Date Punishment Ends at: 08/02/2020

What Would You Like To Edit...

- 1.Name
- 2.Gender
- 3.Age
- 4.Weight
- 5.Height
- 6.Crime
- 7.Lawyer
- 8.Conviction
- 9.Starting Date Of Punishment
- 10.Ending Date Of Punishment
- 11.Whole Record
- 12.Go Back To Main Menu

ENTER YOUR CHOICE: 11

Enter The New Data

Name: Shreya

Gender: Female

Age: 27

Weight: 60

Height: 5.2

Crime: Robbery

Lawyer: Mahesh

Conviction: Prison

The Date Punishment Started at: 07/04/2019

The Date Punishment Ends at: 05/10/2020_

EDITING COMPLETED...

THE NEW RECORD IS

Prisoner's Name: Shreya

Prisoner's Gender: Female

Prisoner's Age: 27

Prisoner's Weight: 60

Prisoner's Height: 5.2

Prisoner's Crime: Robbery

Prisoner's Lawyer: Mahesh

Prisoner's Conviction: Prison

The Date Punishment Started at: 07/04/2019

The Date Punishment Ends at: 05/10/2020

Would you like to edit another record...(Y/N)_

View Menu

```
*****
*LIST OF PRISONERS*
*****

Details of Prisoners
```

ID	Name	Gender	Age	Weight	Height	Crime	Lawyer	Conviction	Punishment Start	Punishment End
101	Ram	Male	30	45	5.10	Murder	Deepak	Prison	10/10/2020	10/10/2022
102	Priya	Female	26	64	5.1	Robbery	Paresh	Prison	06/06/2019	08/02/2020
103	Naresh	Male	45	67	5.7	Fraud	Suresh	Prison	09/04/2018	11/08/2021

PRESS ANY KEY TO EXIT...

Delete Menu

Case: Record Exists

```
*****
*THE DELETE MENU*
*****

ENTER PASSWORD: 1234

*ACCESS GRANTED*

Enter the ID of the record to be deleted: 103

Deleted Successfully...
Would you like to delete another record...(Y/N):n

Press any key to exit...
```

Case: Record Does Not Exist


```
*****
*THE DELETE MENU*
*****
```

ENTER PASSWORD: 1234

ACCESS GRANTED

Enter the ID of the record to be deleted: 110

The record does not exist in the system so can't be deleted

Would you like to delete another record...(Y/N):n

Press any key to exit..._

Case: Invalid Access

```
*****
*THE DELETE MENU*
*****
```

ENTER PASSWORD: 1254

Sorry!Invalid password

Press any key to exit..._

Exit Menu

MAIN MENU:

Add Record	[1]
Search Record	[2]
Edit Record	[3]
View Record	[4]
Delete Record	[5]
Exit	[6]

Enter Your Choice: 6_

Thank You

Process returned 0 (0x0) execution time : 276.620 s
Press any key to continue.