Faculty of Science and Technology
Department of Information Technology

IT3210

Database management system

Topic: Prisoner Data Management system

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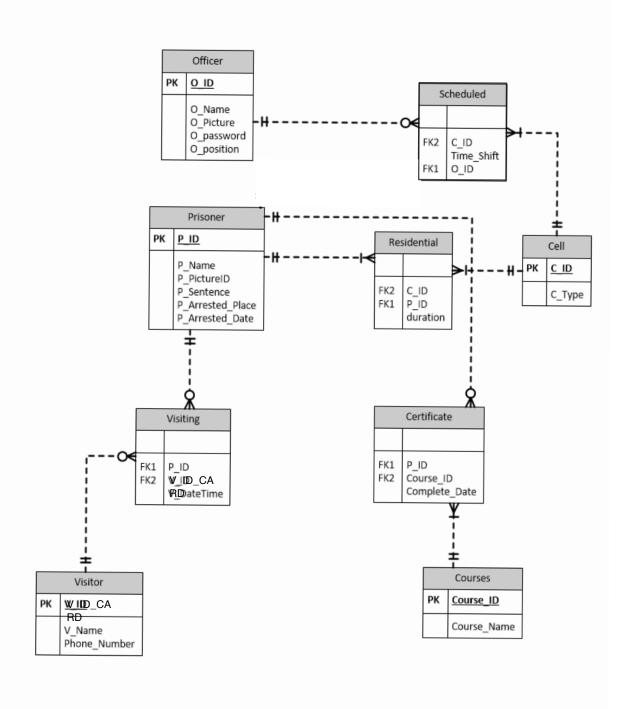
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Submitted to

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Introduction

This system is about managing the prisoner's data management system. The system includes managing the prisoner's background information such as places they have arrested, their contact, sentences duration and their identity. Other information such as visiting frequency from visitor, their cell history and current stay in cell are also included in the system. Offices are able to use the system for searching, adding, updating the prisoner's information by using their identity to verify and function. The system also record for the prisoner's education system while they are serving in the prison, such as the courses they want to take and the courses they have completed. The system will separate the function for different officer to allow them to perform different scope. one is to allow the the officer to login with their identity for recording the new prisoner's information, updating and record for the visitor's information to be recorded in the system and another function is allow Officer Supervisor to set the scheduled for different officers's shift on whom they should in charge and during what time.

Scope

- Search - Officers can search both officers, prisoners information and

- Add - Officers can add new prisoner's information, visitor information, edit and delete old and new prisoner's information

- visitor registration - Officer can record the visiting time and date of the visitor and relationship between them

- cell information - Officer can view which room of the particular prisoner is staying and which officer is in-charged of the prisoner

- Prisoner's education - Officer can view what the prisoners had learnt or what they are learning now

- Adding new officer and updating prisoner's information - Officer can add new officer information and updating prisoner's information
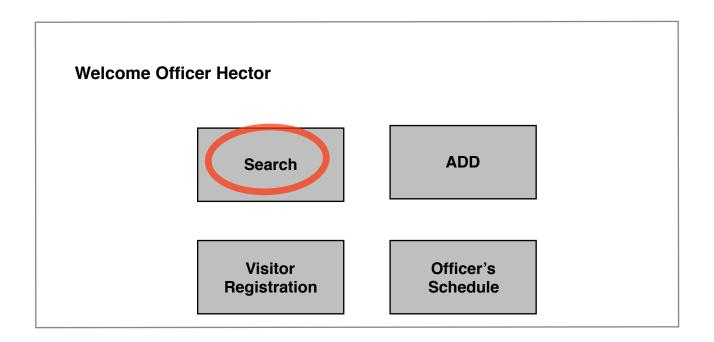
Officer

PK	O_ID
	O_Name
	O_Picture
	O_password
	O_position

Scheduled

FK2	C_ID
	Time_Shift
FK1	O_ID

Prisoner

PK	P_ID
	P_Name
	P_PictureID
	P_Sentence
	P_Arrested_Place
	P_Arrested_Date

Residential

FK2	C_ID
FK1	P_ID
	duration

Cell

PK	C_ID
	C_Type

Visiting

FK1	P_ID
FK2	V_ID_CA
	RD
	V_DateTime

Certificate

FK1	P_ID
FK2	Course_ID
	Complete_Date

Visitor

PK	V_ID_CA
	RD
	V_Name
	Phone_Number

Courses

PK	Course_ID
	Course_Name

ER diagram

Functional Design and SQL request

Prisoner Data Management System has only one user

    - Office

Officer login

ID : [   ]

Password : [   ]

[**login**]

SELECT O_ID from Officer where O_ID = {ID} AND O_Password = {Password}

Welcome Officer Hector

Search	ADD
Visitor Registration	Officer's Schedule

Welcome Officer Hector

Search for Prisoner's information ▼

[   ] By Prisoner ID ▼   Search

Search for Prisoner Information

SELECT * From Prisoner where P_ID = {Prisoner_ID}

SELECT * From Prisoner where P_ARRESTED_PLACE = {Prisoner_ARRESTED_PLACE}

SELECT * From Prisoner where P_ARRESTED_Date = {Prisoner_ARRESTED_DATE}

SELECT * From Prisoner where P_SENTENCE = {Prisoner_SENTENCE}

SELECT * From Prisoner where P_NAME = {Prisoner_NAME}

SELECT * FROM residential where P_ID = {Prisoner_ID}

Search for visiting information for particular prisoner

SELECT * FROM Visitor LEFT OUTER JOIN Visiting ON Visitor.V_ID = Visiting.V_ID
WHERE P_ID = {PRISONER_ID}

SELECT * FROM Visitor LEFT OUTER JOIN Visiting ON Visitor.V_ID = Visiting.V_ID
WHERE V_ID = {VISITOR_ID}

Search for Cell information

SELECT * FROM Residential WHERE P_ID = {PRISONER_ID}

SELECT * FROM Residential WHERE C_ID = {CELL_ID}

Search for officer information

SELECT * FROM SCHEDULED WHERE O_ID = {OFFICER_ID}

SELECT * FROM SCHEDULED WHERE TIMIE_SHIFT = {TIME_SHIFT}

SELECT * FROM SCHEDULED WHERE C_ID = {CELL_ID}

Search for Education information

SELECT * FROM CERTIFICATE WHERE P_ID = {PRISONER_ID}

SELECT * FROM CERTIFICATE WHERE COURSE_ID = {COURSE_ID}

SELECT * FROM CERTIFICATE WHERE COMPLETED_DATE = {COMPLETED_DATE}

SELECT * FROM COURSE WHERE COURSE_ID = {COURSE_ID}

Example of Query output

P_ID	P_NAME	P_PICTURE_ID	P_SENTENCE_DURATION	P_ARRETED_PLACE	P_ARRESTED_DATE
5	Pauk walker	PA234324	10 year	bio	2016-11-19

V_ID	V_NAME	V_PHONE	P_ID	V_TIME	V_Relationship
1101804	Phyu Phyu	958579608	5	2016-08-11 10:20:00	Mom

Welcome Officer Hector

Search Result : for 123456

Prisoner ID: | 12346

Cell Number | A100

Name : | Champ rattaa

Cell Type | Double

Picture :

Add Photo

Stay Duration | 10/10/2016 To 12/12/2019

Sentence Duration | 10 year

Learning :

Course Name :
Course ID :
Attended Duration :

Arrest Place | ABAC

Arrest Date | 2016-11-15

Update

UPDATE `Prisoner` SET
`P_ID`={DEFAULT},`P_NAME`={P_NAME},`P_PICTURE_ID`={P_PICTURE_ID},`P_SENTENC
E_DURATION`={P_SENTENCE_DURATION},`P_ARRETED_PLACE`={P_ARRESTED_PLACE
},`P_ARRESTED_DATE`={P_ARRESTED_DATE} WHERE P_ID = {P_ID}
UPDATE `Cell` SET 'C_ID' = {Cell_number}, C_TYPE = { Cell_Type}
UPDATE `Residential` SET 'C_ID' = {Cell_number}, P_ID = {P_ID},C_Stay_Duration =
[Stay_Duration}

UPDATE `Course` SET 'Course_ID' = {Course_ID}, Course_Name = {Course_Name},
Completed_date = {attended_duration}
UPDATE `Certificate` SET Completed_date = {attended_duration} WHERE `P_ID`={P_ID}
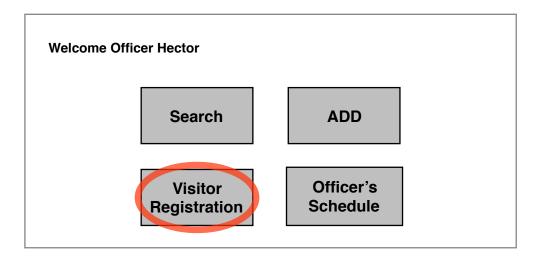
Welcome Officer Hector

Search	**ADD**

Visitor Registration	Officer's Schedule

Welcome Officer Hector

Select On [Prisoner ▼]

Cell Number [ ]

Prisoner ID: [ ]

Cell Type [ ]

Name : [ ]

Picture : [picture area]

Stay Duration [ ]

[Add Photo]

Sentence Duration [ ]

Arrest Place [ ]
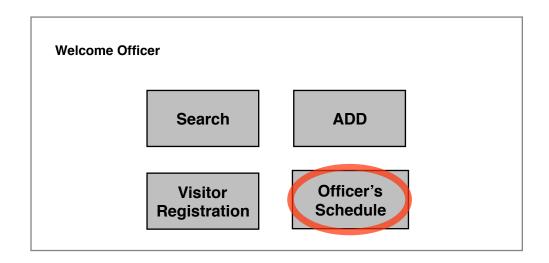
Arrest Date [ ]

[Add]

INSERT INTO `Prisoner`(`P_ID`, `P_NAME`, `P_PICTURE_ID`, `P_SENTENCE_DURATION`, `P_ARRETED_PLACE`, `P_ARRESTED_DATE`) VALUES (DEFAULT,'aa','22222','12 years','bangkok','2016-12-03')
INSERT INTO `Cell`('C_ID' = {Cell_number}, C_TYPE = { Cell_Type})
INSERT INTO `Residential` ('C_ID' = {Cell_number}, P_ID = {P_ID},C_Stay_Duration = [Stay_Duration})

Welcome Officer Hector

Select On   Officer ▼

Officer ID:

Name :

Password :

Position :

Picture :

Add Photo

Add

INSERT INTO `Officer`(`O_ID`, `O_NAME`, `O_PICTURE_ID`, `O_PASSWORD`, `O_POSITION`) VALUES ({DEFAULT},{officer_name},{Picture},{Password},{Position})

Welcome Officer Hector

Search	ADD
Visitor Registration	**Officer's Schedule**

Welcome Officer Hector

Visitor Information

Visitor I.D. Card: X-XXX-XXXX-XXXX

Prisoner Name :   Hector   **ID :**   123123

Phone Number   09-212341-1

Relationship   MOM

Date/time   2016-11-15 10:33 AM

Register

INSERT INTO Visitor VALUE ({V_ID_CARD},{V_NAME},{V_PHONE})

INSERT INTO Visiting VALUE ({V_NAME},{V_Relationship})

Welcome Officer

Search	ADD

Visitor Registration	Officer's Schedule

Welcome Officer Hector

Officer Schedule

Officer ID : XXXX

Officer Name : Hector

Cell Id A1-A5

Time Shift
2016-11-23
9.00 AM to 5.00 PM

Set	Update

SELECT `O_NAME` FROM OFFICER WHERE O_ID= {Officer_ID}
INSERT INTO Scheduled (`C_ID`,`Time_shift`,`O_ID`) VALUE ({cell_ID},{Time_shift}, {Officer_ID})

Data Dictionary
Prisoner

Column	Type	Null	Description	Example
P_ID (Primary Key)	Varchar(7)	No	Unique key to identify Each prisoner	A12356
P_NAME	text	No	Prisoner name	Kenny
P_PICTURE_ID	Varchar(200)	No	Prisoner Pictures	PK1234567
P_SENTENCE_DURATION	text	No	Prisoner sentence duration	10 year
P_ARRETED_PLACE	text	No	Prison arrested place	Bangkok
P_ARRESTED_DATE	Date	No	Prison arrested date	2014-07-19

Visitor

Column	Type	Null	Description	Example
V_ID_CARD (Primary Key)	Varchar(20)	No	Unique key to identify each visitor	V22233
V_NAME	text	No	Visitor name	Garila
V_PHONE	int(10)	No	Visitor Phone number	085-9473-568

Visiting

Column	Type	Null	Description	Example
P_ID (Foreign Key)	Varchar(7)	No	Unique key to identify Each prisoner	A123456
V_ID_CARD (Foreign Key)	Varchar(20)	No	Unique key to identify each visitor	1101983494
V_TIME	DateTime	No	Visiting time	2016-04-33 13.00 PM
V_Relationship	text	No	Relationship of visitor and prisoner	DAD

Residential

Column	Type	Null	Description	Example
P_ID (Foreign Key)	Varchar(7)	No	Unique key to identify Each prisoner	A12356
C_ID (Foreign Key)	Varchar(7)	No	Unique key to identify each cell	A001
C_Stay_Duration	Date	No	Time Duration to show history stay of each prisoner	2015-10-12 to 2016-11-23

Cell

Column	Type	Null	Description	Example
C_ID(Primary Key)	Varchar(7)	No	Unique key to identify each cell	A001
C_TYPE	Text	No	Types of cell	double

Schedule

Column	Type	Null	Description	Example
P_ID (Foreign Key)	Varchar(7)	No	Unique key to identify Each prisoner	A12356
C_ID (Foreign Key)	Varchar(7)	No	Unique key to identify each cell	A001
O_ID (Foreign Key)	Varchar(7)	No	Unique key to identify each officer	O876542
Time_Shift	datetime	No	Officer's working scheduled	03/12/2016(Monday) 5:00Am to 5:00pm

Officer

Column	Type	Null	Description	
O_ID(Primary Key)	Varchar(7)	No	Unique key to identify each officer	O876542
O_NAME	text(20)	No	Officer name	Wasin
O_PICTURE_ID	Varchar(200)	No	Officer pictures	OW00823
O_PASSWORD	Varchar(10)	No	Password that officers use to log in to system	popo0102
O_POSITION	text	No	Officer's position	Supervisor or officer

Education

Column	Type	Null	Description	
P_ID (Foreign Key)	Varchar(7)	No	Unique key to identify Each prisoner	A12356
Course_ID (Foreign Key)	Varchar(7)	No	Unique key to identify each course	IT3210
Complete_Dtae	datetime	No	Time duration to show when did the prisoner complete each course	12/02/2014 to 3/04/14

Course

Column	Type	Null	Description	
Course_ID(Primary Key)	Varchar(7)	No	Unique key to identify each course	IT3210
Course	text	No	Course name	Database Management System