

Project Report, Fall 2021-22

Course	Introduction to Database [H]	Group	NOT
			GIVEN

Group Members:

Student ID	Name	Contribution
21-44681-1	SABITUL IQRAM	Introduction and Scenario description
21-44664-1	CHOWDHURY, SAFWAN UDDIN	ER Diagram, normalization
21-44634-1	SHIKDAR, JAHIDUL ISLAM	Table creation Data insertion,
21-44577-1	UPOL,MD.DAUD HOSSAIN	Queries and conclusion

Title:

PRISON MANAGEMENT SYSTEM

SUBMITTED TO

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LECTURER

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TABLE OF CONTENTS

Topics	page
1. Title page and group info	01
2. Table of content	02
3. Introduction and Scenario description	03
4. ER Diagram	04
5. Normalization	05
6. Table creation	06-12
7. Data insertion	13-21
8. Queries	22-34
9. Conclusion	35

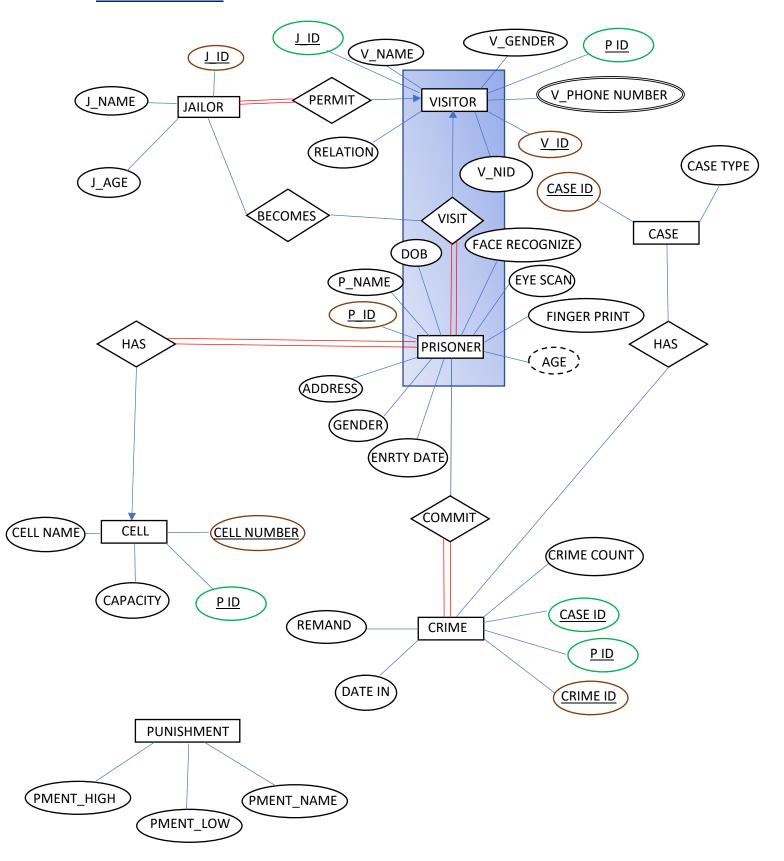
INTRODUCTION:

The project is about prison management system. This system is made to keep record of all the information of a prison. Online database project is much better than paper records. Paper record can be lost and take too much time to search for a particular information and has no backup. User can access prisoner, visitor, and jailor's information very easily with the help of the prison management system.

SCENARIO DESCRIPTION:

In a prison management system, a jailor can permit many visitors. A visitor can be permitted by a jailor. A jailor is identified by jailor id (J ID), Jailor age (J AGE) and jailor name (J NAME) where jailor id (J ID) is "Primary key". A jailor becomes visitors and visit prisoner. System stores visitor's name (V_NAME), visitor's gender (V_GENDER), visitor's id (V_ID) here (V_ID) is a "Primary key", visitor's number (V_PHONE NUMBER), visitor's NID number(V_NID), relation with prisoner (RELATION), prisoner ID (P ID) here (P ID) is a "Foreign key" and jailor ID (J_ID) here jailor ID (J_ID) is a "Foreign key". A visitor may visit many prisoners. A prisoner can be visited by many visitors. A prisoner is identified by the prisoner's name (P NAME), prisoner id (P_ID) here (P ID) is a "Primary key", prisoner's gender (GENDER), prisoner's address (ADDRESS), prisoner's entry date (ENTRY DATE), prisoner's face reorganization (FACE RECOGNIZE), prisoner's date of birth (DOB), prisoner's age (AGE), prisoner's eye scan (EYE SCAN), and prisoner's fingerprint (FINGER PRINT). A prisoner has exactly one cell. A cell may have many prisoners. Cell is identified by cell name (CELL NAME), cell number (CELL NUMBER), cell capacity (CAPACITY) and prisoner's Id (P ID) here prisoner's Id (P ID) is a "Foreign key". A prisoner may commit many crimes. A crime can be committed by many prisoners. Crime is identified by crime count (CRIME COUNT), remand (REMAND), date in (DATE IN), crime id (CRIME ID) here crime id (CRIME ID) is a "Primary key", crime case Id (CASE ID) here crime case Id (CASE ID) is a "Foreign key" and prisoner's Id (P ID) here prisoner's Id (P ID) is a "Foreign key". Crime has case and cases are identified by case id (CASE ID) here case Id (CASE ID) is a "Primary key" and case type (CASE TYPE). And there is punishment for every prisoner. A prisoner can be punished. Punishment is identified with high punishment (PMENT HIGH), low punishment (PMENT LOW) and punishment name (PMENT_NAME).

ER DIAGRAM:



NORMALIZATION:

- ➤ **JAILOR:** This entity has no transitive dependency and functional dependency. So, it is already in 3NF
- ➤ VISITOR: VISITOR table has phone number which is multivalued attribute. This can be separated in two by phone number 1 and phone number 2 and make this attribute independent. Other attributes of this table are already independent. So, it is also in 3NF.
- ➤ **PRISONER:** This table has no transitive or functional dependencies and therefore it is already in 3NF.
- > **CRIME:** All the attribute of this table can be identified uniquely with the primary key.
- > CASE: Already in 3NF.
- > CELL: No functional and transitive dependency.
- > **PUNISHMENT:** Already in 3NF.

TABLE CREATION:

```
CREATE TABLE JAILOR

(

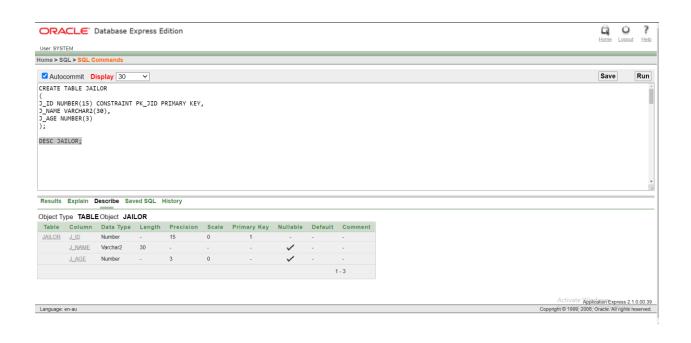
J_ID NUMBER(15) CONSTRAINT PK_JID PRIMARY KEY,

J_NAME VARCHAR2(30),

J_AGE NUMBER(3)

);

DESC JAILOR;
```



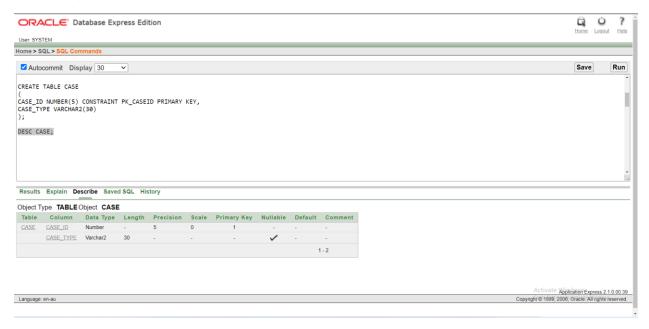
```
CREATE TABLE CASE

(

CASE_ID NUMBER(5) CONSTRAINT PK_CASEID PRIMARY KEY,

CASE_TYPE VARCHAR2(30)
```

DESC CASE;



```
CREATE TABLE PRISONER

(

P_ID NUMBER(15) CONSTRAINT PK_PID PRIMARY KEY,

P_NAME VARCHAR2(30),

DOB DATE,

P_AGE NUMBER(3),

FINGER_PRINT VARCHAR2(5),

FACE_RECOGNIZE VARCHAR2(5),

EYE_SCAN VARCHAR2(5),

ADDRESS VARCHAR2(5),

GENDER VARCHAR2(10),

ENTRY_DATE DATE,

);
```

```
ALTER TABLE PRISONER MODIFY
(
ADDRESS VARCHAR2(100)
);
DESC PRISONER;
```

Results Explain Describe Saved SQL Object Type TABLE Object PRISONER Table Column Data Type PRISONER P_ID Number									
Table	Column	Data Type	Length	Precision	Scale	Primary Key	Nullable	Default	Comment
PRISONER	P_ID	Number	-	15	0	1	-	-	-
	P_NAME	Varchar2	30	-	-	-	/	-	-
	DOB	Date	7	-	-	-	/	-	-
	P_AGE	Number	-	3	0	-	/	-	-
	FINGER_PRINT	Varchar2	5	-	-	-	/	-	-
	FACE_RECOGNIZE	Varchar2	5	-	-	-	/	-	-
	EYE_SCAN	Varchar2	5	-	-	-	/	-	-
	ADDRESS	Varchar2	100	-	-	-	/	-	-
	GENDER	Varchar2	10	-		-	~	-	-
	ENTRY_DATE	Date	7	-	-	-	/	-	-
								1	- 10

```
CREATE TABLE CELL

(

CELL_NUMBER NUMBER(15) CONSTRAINT PK_CELLNUMBER PRIMARY KEY,

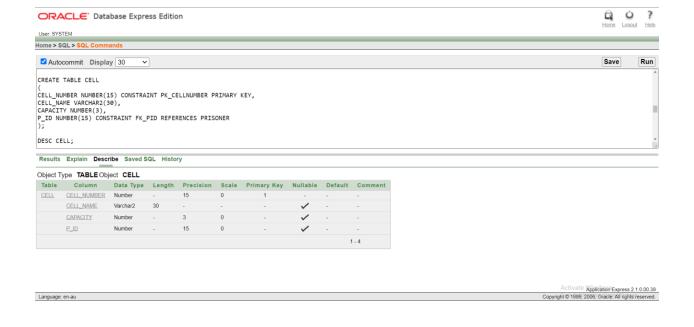
CELL_NAME VARCHAR2(30),

CAPACITY NUMBER(3),

P_ID NUMBER(15) CONSTRAINT FK_PID REFERENCES PRISONER

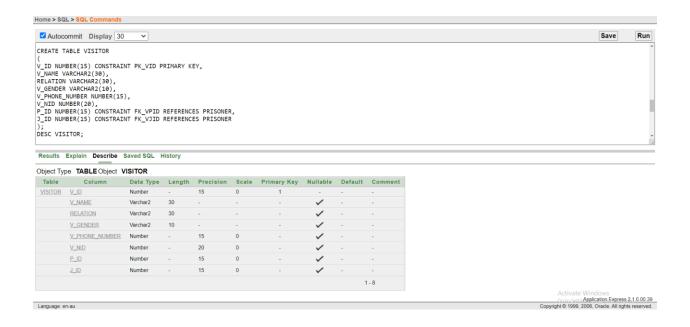
);

DESC CELL;
```



CREATE TABLE VISITOR (V_ID NUMBER(15) CONSTRAINT PK_VID PRIMARY KEY, V_NAME VARCHAR2(30), RELATION VARCHAR2(30), V_GENDER VARCHAR2(10), V_PHONE_NUMBER NUMBER(15), V_NID NUMBER(20), P_ID NUMBER(15) CONSTRAINT FK_VPID REFERENCES PRISONER, J_ID NUMBER(15) CONSTRAINT FK_VJID REFERENCES JAILOR);

DESC VISITOR;



```
CREATE TABLE CRIME

(

CRIME_ID NUMBER(15) CONSTRAINT PK_CRIMEID PRIMARY KEY,

DATE_IN DATE,

REMAND VARCHAR2(5),

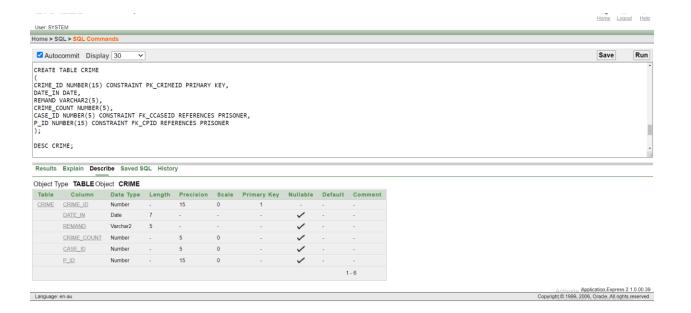
CRIME_COUNT NUMBER(5),

CASE_ID NUMBER(5) CONSTRAINT FK_CCASEID REFERENCES CASE,

P_ID NUMBER(15) CONSTRAINT FK_CPID REFERENCES PRISONER

);
```

DESC CRIME;



```
CREATE TABLE PUNISHMENT
(

PMENT_NAME VARCHAR2(30),

PMENT_LOW NUMBER(5),

PMENT_HIGH NUMBER(5)
);
```

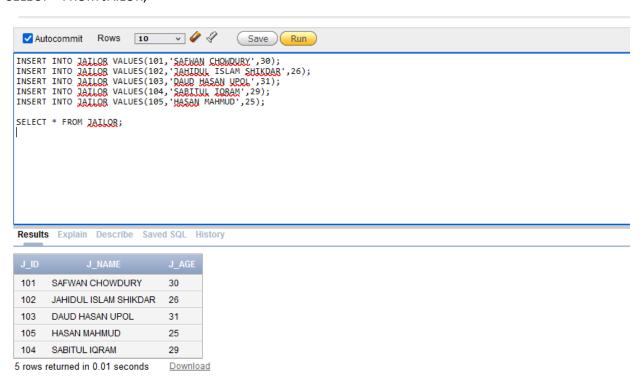
DESC PUNISHMENT;

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Language: en-au Copyright © 1999, 2006, Oracle, All, rights reserved.

DATA INSERTION:

```
INSERT INTO JAILOR VALUES(101, 'SAFWAN CHOWDURY',30);
INSERT INTO JAILOR VALUES(102, 'JAHIDUL ISLAM SHIKDAR',26);
INSERT INTO JAILOR VALUES(103, 'DAUD HASAN UPOL',31);
INSERT INTO JAILOR VALUES(104, 'SABITUL IQRAM',29);
INSERT INTO JAILOR VALUES(105, 'HASAN MAHMUD',25);
```

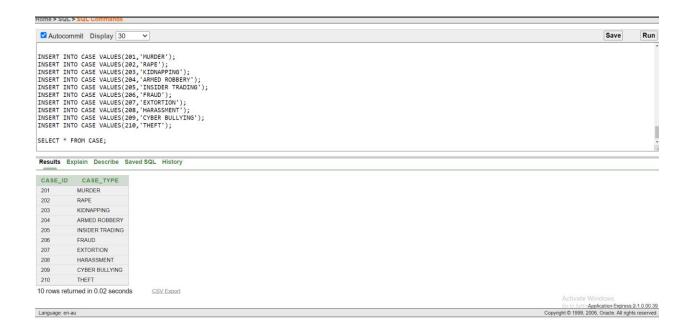
SELECT * FROM JAILOR;



```
INSERT INTO CASE VALUES(201,'MURDER');
INSERT INTO CASE VALUES(202,'RAPE');
INSERT INTO CASE VALUES(203,'KIDNAPPING');
INSERT INTO CASE VALUES(204,'ARMED ROBBERY');
INSERT INTO CASE VALUES(205,'INSIDER TRADING');
INSERT INTO CASE VALUES(206,'FRAUD');
```

```
INSERT INTO CASE VALUES(207, 'EXTORTION');
INSERT INTO CASE VALUES(208, 'HARASSMENT');
INSERT INTO CASE VALUES(209, 'CYBER BULLYING');
INSERT INTO CASE VALUES(210, 'THEFT');
```

SELECT * FROM CASE;



INSERT INTO PRISONER VALUES(1001, 'NAHID HASSAN', TO_DATE('01 Jan 1999', 'DD MON YYYY'), 22, 'YES', 'YES', 'ROAD 2, JOYPARA, DOHAR, DHAKA, BANGLADESH', 'MALE', TO_DATE('01 Jan 1999', 'DD MON YYYY'));

UPDATE PRISONER SET ENTRY_DATE = TO_DATE('19 Jan 2018', 'DD MON YYYY') WHERE P_ID =1001;

INSERT INTO PRISONER VALUES(1002, 'ARMAN ARIF', TO_DATE('26 Jan 1999', 'DD MON YYYY'), 22, 'YES', 'YES', 'ROAD 3, KHILGAON, DHAKA, BANGLADESH', 'MALE', TO_DATE('26 Jan 2017', 'DD MON YYYY'));

INSERT INTO PRISONER VALUES(1003, 'ALI AHMED', TO_DATE('26 Jan 1998', 'DD MON YYYY'),23, 'YES', 'YES', 'ROAD 9, RAMPURA, DHAKA, BANGLADESH', 'MALE', TO_DATE('27 OCT 2013', 'DD MON YYYY'));

INSERT INTO PRISONER VALUES(1004, 'SAKIB NABI', TO_DATE('26 JUL 1997', 'DD MON YYYY'), 24, 'YES', 'YES', 'ROAD 7, MOHAMMADPUR, DHAKA, BANGLADESH', 'MALE', TO_DATE('27 DEC 2015', 'DD MON YYYY'));

INSERT INTO PRISONER VALUES(1005, 'SAMIO CHEMIYO', TO_DATE('07 MAY 1998', 'DD MON YYYY'),23, 'YES', 'YES', 'ROAD 1,SHAJADPUR,DHAKA,BANGLADESH', 'MALE', TO_DATE('28 OCT 2016', 'DD MON YYYY'));

INSERT INTO PRISONER VALUES(1006, 'USMAN GHANI', TO_DATE('07 MAY 1995', 'DD MON YYYY'), 26, 'YES', 'YES', 'ROAD 3, BADDA, DHAKA, BANGLADESH', 'MALE', TO_DATE('1 JAN 2012', 'DD MON YYYY'));

INSERT INTO PRISONER VALUES(1007, 'HAFSA ISLAM', TO_DATE('07 MAR 1998', 'DD MON YYYY'), 23, 'YES', 'YES', 'ROAD 3, BOSHUNDARA, DHAKA, BANGLADESH', 'FEMALE', TO_DATE('1 JAN 2019', 'DD MON YYYY'));

INSERT INTO PRISONER VALUES(1008, SUMAIYA RAHMAN', TO_DATE('27 SEP 1996', 'DD MON YYYY'), 25, 'YES', 'YES', 'ROAD 9, MOHAKHALI, DHAKA, BANGLADESH', 'FEMALE', TO_DATE('1 FEB 2020', 'DD MON YYYY'));

INSERT INTO PRISONER VALUES(1009,'NAIMA DEY',TO_DATE('15 AUG 2000', 'DD MON YYYY'),21,'YES','YES','YES','ROAD 9,SAVAR,DHAKA,BANGLADESH','FEMALE',TO_DATE('1 MAR 2018', 'DD MON YYYY'));

INSERT INTO PRISONER VALUES(1010, 'MISHA SHOUDAGAR', TO_DATE('23 SEP 1999', 'DD MON YYYY'), 22, 'YES', 'YES', 'ROAD 9, BANANI, DHAKA, BANGLADESH', 'MALE', TO_DATE('11 DEC 2014', 'DD MON YYYY'));

INSERT INTO PRISONER VALUES(1011, 'EMPEROR NIRJHOR', TO_DATE('27 OCT 1998', 'DD MON YYYY'), 23, 'YES', 'YES', 'ROAD 9, KHILGAON, DHAKA, BANGLADESH', 'MALE', TO_DATE('23 SEP 2017', 'DD MON YYYY'));

INSERT INTO PRISONER VALUES(1012, 'EMPEROR JAHANGIR', TO_DATE('5 MAY 1993', 'DD MON YYYY'), 28, 'YES', 'YES', 'ROAD 2, GULSAN, DHAKA, BANGLADESH', 'MALE', TO_DATE('5 SEP 2019', 'DD MON YYYY'));

INSERT INTO PRISONER VALUES(1013, 'RAWNAK MAHIN', TO_DATE('14 NOV 2000', 'DD MON YYYY'), 21, 'YES', 'YES', 'ROAD 15, MIRPUR, DHAKA, BANGLADESH', 'MALE', TO_DATE('01 NOV 2010', 'DD MON YYYY'));

INSERT INTO PRISONER VALUES(1014, 'ARIFUL HAQUE', TO_DATE('28 NOV 1994', 'DD MON YYYY'), 27, 'YES', 'YES', 'ROAD 19, MUNCHEPPARA, BRAHMANBARIA', 'MALE', TO_DATE('27 FEB 2007', 'DD MON YYYY'));

INSERT INTO PRISONER VALUES(1015, 'LABIBA SHAMIM', TO_DATE('2 APR 1995', 'DD MON YYYY'), 26, 'YES', 'YES', 'YES', 'ROAD 4, TUNGIPARA, GOPALGONG', 'FEMALE', TO_DATE('29 JAN 2003', 'DD MON YYYY'));

SELECT * FROM PRISONER;

Results	Explain Describe	Saved SQL	History						
P_ID	P_NAME	DOB	P_AGE	FINGER_PRINT	FACE_RECOGNIZE	EYE_SCAN	ADDRESS	GENDER	ENTRY_DATE
1001	NAHID HASSAN	01/JAN/99	22	YES	YES	YES	ROAD 2, JOYPARA, DOHAR, DHAKA, BANGLADESH	MALE	19/JAN/18
1002	ARMAN ARIF	26/JAN/99	22	YES	YES	YES	ROAD 3,KHILGAON,DHAKA,BANGLADESH	MALE	26/JAN/17
1003	ALI AHMED	26/JAN/98	23	YES	YES	YES	ROAD 9,RAMPURA,DHAKA,BANGLADESH	MALE	27/OCT/13
1004	SAKIB NABI	26/JUL/97	24	YES	YES	YES	ROAD 7,MOHAMMADPUR,DHAKA,BANGLADESH	MALE	27/DEC/15
1005	SAMIO CHEMIYO	07/MAY/98	23	YES	YES	YES	ROAD 1,SHAJADPUR,DHAKA,BANGLADESH	MALE	28/OCT/16
1006	USMAN GHANI	07/MAY/95	26	YES	YES	YES	ROAD 3,BADDA,DHAKA,BANGLADESH	MALE	01/JAN/12
1007	HAFSA ISLAM	07/MAR/98	23	YES	YES	YES	ROAD 3,BOSHUNDARA,DHAKA,BANGLADESH	FEMALE	01/JAN/19
1008	SUMAIYA RAHMAN	27/SEP/96	25	YES	YES	YES	ROAD 9,MOHAKHALI,DHAKA,BANGLADESH	FEMALE	01/FEB/20
1009	NAIMA DEY	15/AUG/00	21	YES	YES	YES	ROAD 9,SAVAR,DHAKA,BANGLADESH	FEMALE	01/MAR/18
1010	MISHA SHOUDAGAR	23/SEP/99	22	YES	YES	YES	ROAD 9,BANANI,DHAKA,BANGLADESH	MALE	11/DEC/14
1011	EMPEROR NIRJHOR	27/OCT/98	23	YES	YES	YES	ROAD 9,KHILGAON,DHAKA,BANGLADESH	MALE	23/SEP/17
1012	EMPEROR JAHANGIR	05/MAY/93	28	YES	YES	YES	ROAD 2, GULSAN, DHAKA, BANGLADESH	MALE	05/SEP/19
1013	RAWNAK MAHIN	14/NOV/00	21	YES	YES	YES	ROAD 15,MIRPUR,DHAKA,BANGLADESH	MALE	01/NOV/10
1014	ARIFUL HAQUE	28/NOV/94	27	YES	YES	YES	ROAD 19,MUNCHEPPARA,BRAHMANBARIA	MALE	27/FEB/07
1015	LABIBA SHAMIM	02/APR/95	26	YES	YES	YES	ROAD 4, TUNGIPARA, GOPALGONG	FEMALE	29/JAN/03
15 rows	returned in 0.00 seco	nds <u>CS</u>	SV Export						Copyright

INSERT INTO VISITOR VALUES(9001, 'GOPAL VAR', 'GRANDFATHER', 'MALE', 01747474747, 191919191919, 1009, 105);

INSERT INTO VISITOR VALUES(9002, 'DORAEMON', 'FRIEND', 'MALE', 01757575757, 2929292929, 1015, 104);

INSERT INTO VISITOR

VALUES(9003,'SHINCHAN','BROTHER','MALE',01767676767,3939393939,1011,103);
INSERT INTO VISITOR VALUES(9004,'TOM','COUSIN','MALE',01787878787,494949494949,1013,101);
INSERT INTO VISITOR VALUES(9005,'SHIZUKA','MOM','FEMALE',01797979797,5959595959,1005,102);
SELECT * FROM VISITOR;



INSERT INTO CRIME VALUES(3001,TO_DATE('15 JAN 2018', 'DD MON YYYY'),'YES',3,202,1001);
INSERT INTO CRIME VALUES(3002,TO_DATE('2 JAN 2017', 'DD MON YYYY'),'YES',6,201,1002);
INSERT INTO CRIME VALUES(3003,TO_DATE('15 OCT 2013', 'DD MON YYYY'),'YES',2,208,1003);
INSERT INTO CRIME VALUES(3004,TO_DATE('12 DEC 2015', 'DD MON YYYY'),'YES',6,203,1004);
INSERT INTO CRIME VALUES(3005,TO_DATE('20 OCT 2016', 'DD MON YYYY'),'NO',1,206,1005);
INSERT INTO CRIME VALUES(3006,TO_DATE('15 DEC 2011', 'DD MON YYYY'),'NO',7,209,1006);
INSERT INTO CRIME VALUES(3007,TO_DATE('17 DEC 2018', 'DD MON YYYY'),'NO',2,206,1007);
INSERT INTO CRIME VALUES(3008,TO_DATE('25 JAN 2020', 'DD MON YYYY'),'YES',9,210,1008);
INSERT INTO CRIME VALUES(3009,TO_DATE('21 FEB 2018', 'DD MON YYYY'),'NO',3,206,1009);
INSERT INTO CRIME VALUES(3010,TO_DATE('01 DEC 2014', 'DD MON YYYY'),'YES',7,207,1010);

INSERT INTO CRIME VALUES(3011,TO_DATE('14 SEP 2017', 'DD MON YYYY'),'NO',2,205,1011); INSERT INTO CRIME VALUES(3012,TO_DATE('01 SEP 2019', 'DD MON YYYY'),'YES',7,204,1012); INSERT INTO CRIME VALUES(3013,TO_DATE('19 OCT 2010', 'DD MON YYYY'),'NO',4,210,1013); INSERT INTO CRIME VALUES(3014,TO_DATE('12 FEB 2007', 'DD MON YYYY'),'YES',5,203,1014); INSERT INTO CRIME VALUES(3015,TO_DATE('20 JAN 2003', 'DD MON YYYY'),'NO',7,210,1015);

SELECT * FROM CRIME;

Results	Explain	Describe	Saved SQL	History

CRIME_ID	DATE_IN	REMAND	CRIME_COUNT	CASE_ID	P_ID
3001	15/JAN/18	YES	3	202	1001
3002	02/JAN/17	YES	6	201	1002
3003	15/OCT/13	YES	2	208	1003
3004	12/DEC/15	YES	6	203	1004
3005	20/OCT/16	NO	1	206	1005
3006	15/DEC/11	NO	7	209	1006
3007	17/DEC/18	NO	2	206	1007
3008	25/JAN/20	YES	9	210	1008
3009	21/FEB/18	NO	3	206	1009
3010	01/DEC/14	YES	7	207	1010
3011	14/SEP/17	NO	2	205	1011
3012	01/SEP/19	YES	7	204	1012
3013	19/OCT/10	NO	4	210	1013
3014	12/FEB/07	YES	5	203	1014
3015	20/JAN/03	NO	7	210	1015

15 rows returned in 0.00 seconds CSV Export

Language: en-au

```
INSERT INTO CELL VALUES(301, 'GG', 1, 1001);
INSERT INTO CELL VALUES(302, 'WP', 1, 1002);
INSERT INTO CELL VALUES(303, 'EZ', 1, 1003);
INSERT INTO CELL VALUES(304, 'ASCP', 1, 1004);
INSERT INTO CELL VALUES(305, 'GM', 1, 1005);
INSERT INTO CELL VALUES(306, 'GGWP', 1, 1006);
INSERT INTO CELL VALUES(307, 'GGEZ', 1, 1007);
INSERT INTO CELL VALUES(308, 'REYNA', 1, 1008);
INSERT INTO CELL VALUES(309, 'SOVA', 1, 1009);
INSERT INTO CELL VALUES(310, 'BRIM', 1, 1010);
INSERT INTO CELL VALUES(311, 'SAGE', 1, 1011);
INSERT INTO CELL VALUES(312, 'PHOENIX', 1, 1012);
INSERT INTO CELL VALUES(313, 'ASTRA', 1, 1013);
INSERT INTO CELL VALUES(314, 'CHAMBER', 1, 1014);
INSERT INTO CELL VALUES(315, 'SKYE', 1, 1015);
INSERT INTO CELL VALUES(316, 'BREACH', 1, NULL);
INSERT INTO CELL VALUES(317, 'RAZE', 1, NULL);
INSERT INTO CELL VALUES(318,'OMEN',1,NULL);
INSERT INTO CELL VALUES(319, 'YORU', 1, NULL);
INSERT INTO CELL VALUES(320, KJ', 1, NULL);
```

SELECT * FROM CELL;

CELL_NUMBER	CELL_NAME	CAPACITY	P_ID
301	GG	1	1001
302	WP	1	1002
303	EZ	1	1003
304	ASCP	1	1004
305	GM	1	1005
306	GGWP	1	1006
307	GGEZ	1	1007
308	REYNA	1	1008
309	SOVA	1	1009
310	BRIM	1	1010
311	SAGE	1	1011
312	PHOENIX	1	1012
313	ASTRA	1	1013
314	CHAMBER	1	1014
315	SKYE	1	1015
316	BREACH	1	-
317	RAZE	1	-
318	OMEN	1	-
319	YORU	1	-
320	KJ	1	-

Application Express 2 1 0 00 39

INSERT INTO PUNISHMENT VALUES('2 YEARS IMPRISONMENT',1,2);
INSERT INTO PUNISHMENT VALUES('7 YEARS IMPRISONMENT',3,4);
INSERT INTO PUNISHMENT VALUES('LIFETIME IMPRISONMENT',5,7);
INSERT INTO PUNISHMENT VALUES('HANG TILL DEATH',8,10);

SELECT * FROM PUNISHMENT;

INSERT INTO PUNISHMENT VALUES('2 YEARS IMPRISONMENT',1,2); INSERT INTO PUNISHMENT VALUES('7 YEARS IMPRISONMENT',3,4); INSERT INTO PUNISHMENT VALUES('LIFETIME IMPRISONMENT',5,7); INSERT INTO PUNISHMENT VALUES ('HANG TILL DEATH', 8, 10); SELECT * FROM PUNISHMENT; Results Explain Describe Saved SQL History PMENT_NAME PMENT_LOW PMENT_HIGH 2 YEARS IMPRISONMENT 1 2 7 YEARS IMPRISONMENT 3 4 LIFETIME IMPRISONMENT 5 7 HANG TILL DEATH 8 10 4 rows returned in 0.00 seconds **CSV Export** Application Express 2.1.0.00.39 Copyright © 1999, 2006, Oracle. All rights reserved. Language: en-au

SELECT * FROM PRISONER;

Results	Explain Describe	Saved SQL	History						
P_ID	P_NAME	DOB	P_AGE	FINGER_PRINT	FACE_RECOGNIZE	EYE_SCAN	ADDRESS	GENDER	ENTRY_DATE
1001	NAHID HASSAN	01/JAN/99	22	YES	YES	YES	ROAD 2,JOYPARA,DOHAR,DHAKA,BANGLADESH	MALE	19/JAN/18
1002	ARMAN ARIF	26/JAN/99	22	YES	YES	YES	ROAD 3,KHILGAON,DHAKA,BANGLADESH	MALE	26/JAN/17
1003	ALI AHMED	26/JAN/98	23	YES	YES	YES	ROAD 9,RAMPURA,DHAKA,BANGLADESH	MALE	27/OCT/13
1004	SAKIB NABI	26/JUL/97	24	YES	YES	YES	ROAD 7,MOHAMMADPUR,DHAKA,BANGLADESH	MALE	27/DEC/15
1005	SAMIO CHEMIYO	07/MAY/98	23	YES	YES	YES	ROAD 1,SHAJADPUR,DHAKA,BANGLADESH	MALE	28/OCT/16
1006	USMAN GHANI	07/MAY/95	26	YES	YES	YES	ROAD 3,BADDA,DHAKA,BANGLADESH	MALE	01/JAN/12
1007	HAFSA ISLAM	07/MAR/98	23	YES	YES	YES	ROAD 3,BOSHUNDARA,DHAKA,BANGLADESH	FEMALE	01/JAN/19
1008	SUMAIYA RAHMAN	27/SEP/96	25	YES	YES	YES	ROAD 9,MOHAKHALI,DHAKA,BANGLADESH	FEMALE	01/FEB/20
1009	NAIMA DEY	15/AUG/00	21	YES	YES	YES	ROAD 9,SAVAR,DHAKA,BANGLADESH	FEMALE	01/MAR/18
1010	MISHA SHOUDAGAR	23/SEP/99	22	YES	YES	YES	ROAD 9,BANANI,DHAKA,BANGLADESH	MALE	11/DEC/14
1011	EMPEROR NIRJHOR	27/OCT/98	23	YES	YES	YES	ROAD 9,KHILGAON,DHAKA,BANGLADESH	MALE	23/SEP/17
1012	EMPEROR JAHANGIR	05/MAY/93	28	YES	YES	YES	ROAD 2,GULSAN,DHAKA,BANGLADESH	MALE	05/SEP/19
1013	RAWNAK MAHIN	14/NOV/00	21	YES	YES	YES	ROAD 15,MIRPUR,DHAKA,BANGLADESH	MALE	01/NOV/10
1014	ARIFUL HAQUE	28/NOV/94	27	YES	YES	YES	ROAD 19,MUNCHEPPARA,BRAHMANBARIA	MALE	27/FEB/07
1015	LABIBA SHAMIM	02/APR/95	26	YES	YES	YES	ROAD 4,TUNGIPARA,GOPALGONG	FEMALE	29/JAN/03
1016	-	-	-	-	-	-		-	-

to to Settings to activate Windows.

Application Express 2.1

QUERIES:

2 simple queries with simple condition:

QUESTION:

Show all the female prisoners.

SELECT * FROM PRISONER WHERE GENDER = 'FEMALE';

Results	Explain Describ	e Saved SG	L History	У					
P_ID	P_NAME	DOB	P_AGE	FINGER_PRINT	FACE_RECOGNIZE	EYE_SCAN	ADDRESS	GENDER	ENTRY_DATE
1007	HAFSA ISLAM	07/MAR/98	23	YES	YES	YES	ROAD 3,BOSHUNDARA,DHAKA,BANGLADESH	FEMALE	01/JAN/19
1008	SUMAIYA RAHMAN	27/SEP/96	25	YES	YES	YES	ROAD 9,MOHAKHALI,DHAKA,BANGLADESH	FEMALE	01/FEB/20
1009	NAIMA DEY	15/AUG/00	21	YES	YES	YES	ROAD 9,SAVAR,DHAKA,BANGLADESH	FEMALE	01/MAR/18
1015	LABIBA SHAMIM	02/APR/95	26	YES	YES	YES	ROAD 4,TUNGIPARA,GOPALGONG	FEMALE	29/JAN/03

QUESTION:

Show all the prisoner who are more than 25 years old.

SELECT * FROM PRISONER WHERE P_AGE > 25;

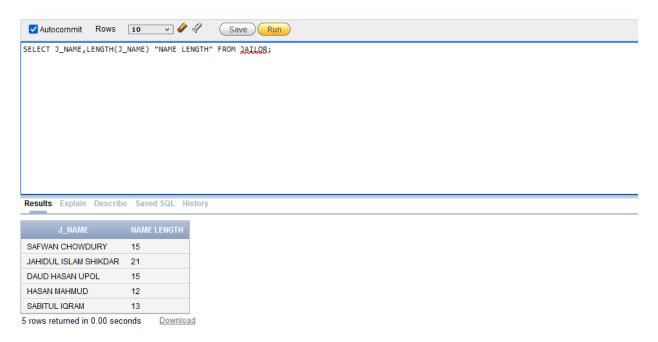
P_ID P_NAME DOB P_AGE FINGER_PRINT FACE_RECOGNIZE EYE_SCAN ADDRESS GENDER	ENTRY_DATE
1006 USMAN GHANI 07/MAY/95 26 YES YES YES YES ROAD 3,BADDA,DHAKA,BANGLADESH MALE	01/JAN/12
1012 EMPEROR JAHANGIR 05/MAY/93 28 YES YES YES ROAD 2,GULSAN,DHAKA,BANGLADESH MALE	05/SEP/19
1014 ARIFUL HAQUE 28/NOV/94 27 YES YES YES ROAD 19,MUNCHEPPARA,BRAHMANBARIA MALE	27/FEB/07
1015 LABIBA SHAMIM 02/APR/95 26 YES YES YES ROAD 4,TUNGIPARA,GOPALGONG FEMALE	29/JAN/03

1 single row function query:

QUESTION:

FIND EVERY JAILORS NAME LENGTH

SELECT J_NAME, LENGTH(J_NAME) "NAME LENGTH" FROM JAILOR;



1 multiple row function query:

QUESTION:

FIND THE MAXIMUM AND MEAN CRIME OF ALL PRISONERS

SELECT MAX(CRIME_COUNT), ROUND(AVG(CRIME_COUNT)) FROM CRIME;

Results Explain Describe Saved SQL History

MAX(CRIME_COUNT) ROUND(AVG(CRIME_COUNT))

9 5

1 rows returned in 0.00 seconds CSV Export

1 SINGLE ROW SUB QUERY:

QUESTION:

SHOW THE PRISONER INFORMATION WHO'S CELL NUMBER IS 301

SELECT * FROM PRISONER WHERE P_ID = (SELECT P_ID FROM CELL WHERE CELL_NUMBER = 301);

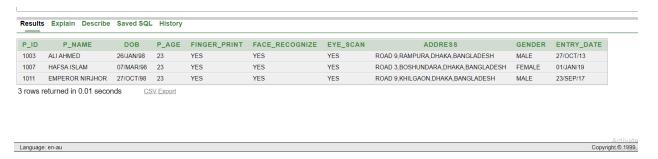


1 MULTI ROW SUB QUERY:

QUESTION:

SHOW ALL THE PRISONERS WHO HAVE DONE 2 CRIMES

SELECT * FROM PRISONER WHERE P_ID IN (SELECT P_ID FROM CRIME WHERE CRIME_COUNT = 2);



2 COMPLEX SUB QUERY:

QUESTION:

SHOW ALL THE VISITOR INFORMATION WHO IS GOING TO VISIT FEMALE PRISONERS WHO IS NOT UNDER REMAND

SELECT * FROM VISITOR WHERE P_ID IN (SELECT P_ID FROM PRISONER WHERE P_ID IN (SELECT P_ID FROM CRIME WHERE REMAND = 'NO') AND GENDER = 'FEMALE');



QUESTION:

SHOW ALL THE PRISONER INFORMATION WHO ARE CHARGED FOR MURDER.

SELECT * FROM PRISONER WHERE P_ID IN (SELECT P_ID FROM CRIME WHERE CASE_ID = (SELECT CASE_ID FROM CASE WHERE CASE_TYPE = 'MURDER'));

MALE 26/JAN/17
WINEL ZO/O/NW/17

JOINING QUERIES:

EQUIJOIN QUERY:

QUESTION:

SHOW THE INFORMATION OF PRISONER ID, PRISONER NAME, DATE IN, CASE TYPE CRIME COUNT USING EQUIJOIN.

SELECT P.P_ID,P.P_NAME,C.DATE_IN,CASE.CASE_TYPE,C.CRIME_COUNT FROM PRISONER P, CRIME C,CASE WHERE CASE.CASE_ID = C.CASE_ID AND C.P_ID = P.P_ID;

Results	Explain Describe	Saved SQL	History	
P_ID	P_NAME	DATE_IN	CASE_TYPE	CRIME_COUNT
1001	NAHID HASSAN	15/JAN/18	RAPE	3
1002	ARMAN ARIF	02/JAN/17	MURDER	6
1003	ALI AHMED	15/OCT/13	HARASSMENT	2
1004	SAKIB NABI	12/DEC/15	KIDNAPPING	6
1005	SAMIO CHEMIYO	20/OCT/16	FRAUD	1
1006	USMAN GHANI	15/DEC/11	CYBER BULLYING	7
1007	HAFSA ISLAM	17/DEC/18	FRAUD	2
1008	SUMAIYA RAHMAN	25/JAN/20	THEFT	9
1009	NAIMA DEY	21/FEB/18	FRAUD	3
1010	MISHA SHOUDAGAR	01/DEC/14	EXTORTION	7
1011	EMPEROR NIRJHOR	14/SEP/17	INSIDER TRADING	2
1012	EMPEROR JAHANGIR	01/SEP/19	ARMED ROBBERY	7
1013	RAWNAK MAHIN	19/OCT/10	THEFT	4
1014	ARIFUL HAQUE	12/FEB/07	KIDNAPPING	5
1015	LABIBA SHAMIM	20/JAN/03	THEFT	7

NON-EQUIJOIN QUERY:

QUESTION:

SHOW THE PUNISHMENT NAME OF ALL THE PRISONERS USING NON-EQUIJOIN

SELECT P.P_ID,P.P_NAME,PT.PMENT_NAME FROM PUNISHMENT PT, CRIME C, PRISONER P WHERE C.CRIME_COUNT BETWEEN PT.PMENT_LOW AND PT.PMENT_HIGH AND P.P_ID = C.P_ID;

Results	Explain Describe	Saved SQL History			
P_ID	P_NAME	PMENT_NAME			
1003	ALI AHMED	2 YEARS IMPRISONMENT			
1005	SAMIO CHEMIYO	2 YEARS IMPRISONMENT			
1007	HAFSA ISLAM	2 YEARS IMPRISONMENT			
1011	EMPEROR NIRJHOR	2 YEARS IMPRISONMENT			
1001	NAHID HASSAN	7 YEARS IMPRISONMENT			
1009	NAIMA DEY	7 YEARS IMPRISONMENT			
1013	RAWNAK MAHIN	7 YEARS IMPRISONMENT			
1002	ARMAN ARIF	LIFETIME IMPRISONMENT			
1004	SAKIB NABI	LIFETIME IMPRISONMENT			
1006	USMAN GHANI	LIFETIME IMPRISONMENT			
1010	MISHA SHOUDAGAR	LIFETIME IMPRISONMENT			
1012	EMPEROR JAHANGIR	LIFETIME IMPRISONMENT			
1014	ARIFUL HAQUE	LIFETIME IMPRISONMENT			
1015	LABIBA SHAMIM SUMAIYA RAHMAN	LIFETIME IMPRISONMENT HANG TILL DEATH			
	15 rows returned in 0.00 seconds CSV Export				

LEFT OUTER JOIN QUERY:

QUESTION:

SHOW ALL THE CELL AND PRISONER FROM CELL USING LEFT OUTER JOIN

SELECT C.CELL_NUMBER,P.P_NAME FROM CELL C LEFT OUTER JOIN PRISONER P ON (C.P_ID = P.P_ID) ORDER BY CELL_NUMBER DESC;

Results	Explain	Describe	Saved SQL
CELL_N	IUMBER	P_N	IAME
320		-	
319		-	
318		-	
317		-	
316		-	
315		LABIBA SH	HAMIM
314		ARIFUL H	AQUE
313		RAWNAK	MAHIN
312		EMPEROF	RJAHANGIR
311		EMPEROF	RNIRJHOR
310		MISHA SH	OUDAGAR
309		NAIMA DE	Y
308		SUMAIYA	RAHMAN
307		HAFSA ISI	_AM
306		USMAN G	HANI
305		SAMIO CH	IEMIYO
304		SAKIB NA	BI
303		ALI AHME	D
302		ARMAN A	RIF
301		NAHID HA	SSAN
20 rows r	eturned ir	n 0.00 seco	nds <u>C</u>

FULL OUTER JOIN QUERY:

QUESTION:

SHOW ALL INFORMATION OF PRISONER ID , PRISONER NAME AND CELL NUMBER FROM PRISONER AND CELL.

SELECT P.P_ID,P.P_NAME,C.CELL_NUMBER FROM PRISONER P FULL OUTER JOIN CELL C $ON(P.P_ID = C.P_ID);$

Results	Explain	Describe	Saved SQL	History
P_ID	P_N	AME	CELL_NUM	MBER
1001	NAHID HAS	SSAN	301	
1002	ARMAN AF	RIF	302	
1003	ALI AHMED)	303	
1004	SAKIB NAE	31	304	
1005	SAMIO CH	EMIYO	305	
1006	USMAN GI	HANI	306	
1007	HAFSA ISL	AM	307	
1008	SUMAIYA F	RAHMAN	308	
1009	NAIMA DE	Y	309	
1010	MISHA SHO	OUDAGAR	310	
1011	EMPEROR	NIRJHOR	311	
1012	EMPEROR	JAHANGIR	312	
1013	RAWNAK N	MAHIN	313	
1014	ARIFUL HA	AQUE	314	
1015	LABIBA SH	IAMIM	315	
1016	-		-	
-	-		316	
-	-		317	
-	-		318	
-	-		319	
_			320	

21 rows returned in 0.00 seconds CSV Export

SELF JOIN QUERY:

QUESTION:

SHOW PRISONER ID AND CRIME COUNT WHO HAS SAME NUMBER OF CRIME.

SELECT A.P_ID,A.CRIME_COUNT,B.P_ID,B.CRIME_COUNT FROM CRIME A,CRIME B WHERE A.P_ID <> B.P_ID AND A.CRIME_COUNT = B.CRIME_COUNT AND A.REMAND = B.REMAND;

Results	Explain Describ	e Save	ed SQL History
P_ID	CRIME_COUNT	P_ID	CRIME_COUNT
1004	6	1002	6
1002	6	1004	6
1015	7	1006	7
1011	2	1007	2
1012	7	1010	7
1007	2	1011	2
1010	7	1012	7
1006	7	1015	7

8 rows returned in 0.00 seconds CSV Export

VIEW:

QUESTION:

SHOW PRISONER ID , PRISONER NAME , DATE IN, CASE TYPE , CRIME COUNT BY CREATING A VIEW.

CREATE OR REPLACE VIEW PRISONERVIEW (PRISONER_ID, PRISONER_NAME, DATE_IN, CASE_TYPE,CRIME_COUNT) AS SELECT P.P_ID,P.P_NAME,C.DATE_IN,CASE.CASE_TYPE,C.CRIME_COUNT FROM PRISONER P, CRIME C,CASE WHERE CASE.CASE_ID = C.CASE_ID AND C.P_ID = P.P_ID;

SELECT * FROM PRISONERVIEW;

RISONER_I	D PRISONER_NAME	DATE_IN	CASE_TYPE	CRIME_COUNT
001	NAHID HASSAN	15/JAN/18	RAPE	3
002	ARMAN ARIF	02/JAN/17	MURDER	6
003	ALI AHMED	15/OCT/13	HARASSMENT	2
004	SAKIB NABI	12/DEC/15	KIDNAPPING	6
005	SAMIO CHEMIYO	20/OCT/16	FRAUD	1
006	USMAN GHANI	15/DEC/11	CYBER BULLYING	7
007	HAFSA ISLAM	17/DEC/18	FRAUD	2
008	SUMAIYA RAHMAN	25/JAN/20	THEFT	9
009	NAIMA DEY	21/FEB/18	FRAUD	3
010	MISHA SHOUDAGAR	01/DEC/14	EXTORTION	7
011	EMPEROR NIRJHOR	14/SEP/17	INSIDER TRADING	2
012	EMPEROR JAHANGIR	01/SEP/19	ARMED ROBBERY	7
013	RAWNAK MAHIN	19/OCT/10	THEFT	4
014	ARIFUL HAQUE	12/FEB/07	KIDNAPPING	5
015	LABIBA SHAMIM	20/JAN/03	THEFT	7

SEQUENCE:

CREATE SEQUENCE CELLSEQUENCE

MINVALUE 321

MAXVALUE 399

START WITH 321

NOCACHE

NOCYCLE

INCREMENT BY 1;

INSERT INTO CELL VALUES(CELLSEQUENCE.NEXTVAL, 'TNT', 1, NULL);

INSERT INTO CELL VALUES(CELLSEQUENCE.NEXTVAL, 'ATOM', 1, NULL);

INSERT INTO CELL VALUES(CELLSEQUENCE.NEXTVAL, 'GRAMO', 1, NULL);

INSERT INTO CELL VALUES(CELLSEQUENCE.NEXTVAL, 'KILLJOY', 1, NULL);

INSERT INTO CELL VALUES(CELLSEQUENCE.NEXTVAL, 'BRIMMER', 1, NULL);

INSERT INTO CELL VALUES(CELLSEQUENCE.NEXTVAL, 'BRIMMER', 1, NULL);

INSERT INTO CELL VALUES(CELLSEQUENCE.NEXTVAL, 'STONNER', 1, NULL);

SELECT * FROM CELL;

	CELL_NAME	CAPACITY	P_ID
301	GG	1	1001
302	WP	1	1002
303	EZ	1	1003
304	ASCP	1	1004
305	GM	1	1005
306	GGWP	1	1006
307	GGEZ	1	1007
308	REYNA	1	1008
309	SOVA	1	1009
310	BRIM	1	1010
311	SAGE	1	1011
312	PHOENIX	1	1012
313	ASTRA	1	1013
314	CHAMBER	1	1014
315	SKYE	1	1015
316	BREACH	1	-
317	RAZE	1	-
318	OMEN	1	-
319	YORU	1	-
320	KJ	1	-
321	TNT	1	-
322	ATOM	1	-
323	GRAMO	1	-
324	KILLJOY	1	-
325	BRIMMER	1	-
326	STONNER	1	-

26 rows returned in 0.01 seconds CSV Export

CONCLUSION:

This project is just a framework with many more potential attachments to it. As this an introductory course of database, our skill level is not good enough to build a more accurate system to manage a huge facility like prison. We think when we will gain more knowledge about advance database, we can apply more tables, security and more complexity added to the system. Suppose we want to add more different kind of sections in the prison with more titled officers, constables, and so on. We can also add solitary unit, isolation unit, medical ward, doctor's office, entertainment room and more. This prison management system is a unique and diverse system which can be upgraded in many ways and by making it more complex and diverse. In future, we can develop this project with our efficiency.