

# National Firearms and Shooters Register

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Specification Document

***Designed by***

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## General Problem Description

Prepare a specification document to provide a solution to the introduction of a National Firearms and Shooters Register. The new licensing and registration system must satisfy the following criteria:

- (i) Have a user-friendly interface;
- (ii) Have complete documentation;
- (iii) Meet security requirements;
- (iv) Allow for additional information to be added in the future.

## Rationale

In response to urgent national concerns following the Port Arthur Massacre, the federal government wishes to introduce a national firearms register and licensing system for gun owners. At present, no such system exists. It is therefore essential that the system be designed and implemented rapidly, providing:

- \* A user-friendly interface to avoid expensive and time-consuming training sessions.
- \* Complete, yet simple documentation for the rapid establishment of the register on a national basis.
- \* To address security issues as raised by the community regarding Australia's gun laws and the possession of firearms by unlicensed persons.
- \* Rapid and accurate reports for governmental agencies and emergency services.
- \* Adhoc inquiries.
- \* For the ability to add further information to the database if required without major redesign or rewrite.
- \* For the expected large volume of registrations and licenses to be processed following the introduction of the system.
- \* For an increasing number of terminals accessing the system as further regions are introduced.

This may be achieved by providing a solution using a fourth generation language and a modern relational database management system (DBMS) such as Microsoft Access, modern hardware, boasting large amounts of memory and featuring secure communication networks that can operate efficiently and transfer data at high speeds, hence creating the national registration and licensing system.

## Aim

To provide a solution to process weapon registrations and shooters' licences using a fourth generation language and a relational database management system (DBMS). The system must have a user-friendly interface, complete documentation and inbuilt security measures.

## Objectives

The following is a list of objectives which must be adhered to in the design and creation of the Information System.

- \* To provide a solution using a fourth generation language and relational database management system.
- \* To provide compatibility with other systems, such as word processing and accounting.
- \* To provide an easy-to-learn and easy-to-use user interface.
- \* To provide complete, yet simple documentation in the traditional “on paper” format.
- \* To provide suitable security for the system.
- \* To provide suitable standard reports for users, government agencies and emergency services.
- \* To provide users with the ability to perform Adhoc inquiries.
- \* To provide for the possible addition of extra information in the future.

## Assumptions

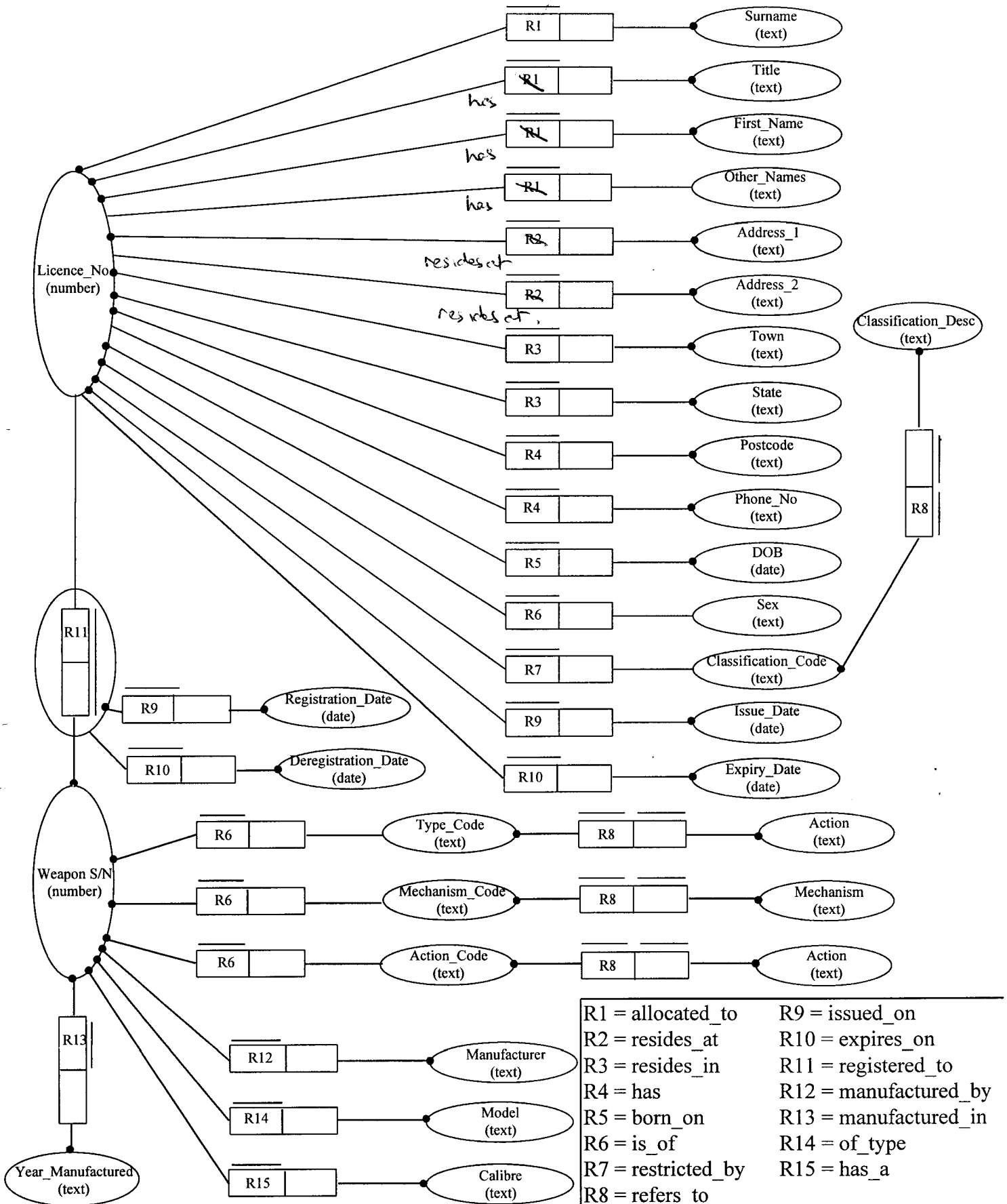
The assumptions listed below may affect the design of the Information System.

- \* All accounting will be handled by a separate accounting system.
- \* Licences are only issued to persons 16 years or over.
- \* Not every licensee may have a telephone number.
- \* Automatic, semi-automatic and pump-action weapons are banned by the Government.
- \* Weapon registration may be transferred from one licensed owner to another.
- \* Two or more licensed persons may register/own the same weapon.
- \* Weapons may be deregistered.
- \* Weapons are automatically deregistered when the licensed owner’s licence expires.
- \* Weapons must be re-registered upon the re-issue of licences.
- \* Licence issue, licence expiry and weapon registration dates will be taken from the computer system.
- \* Licence numbers are not decided by the database.
- \* Weapon serial numbers are unique.
- \* The year in which a weapon is manufactured is earlier than the year in which the weapon is registered.
- \* A weapon’s details may be recorded in the database, even though that weapon may not be registered.
- \* Licences and weapon registration certificates are only created for valid licence numbers and weapon serial numbers.

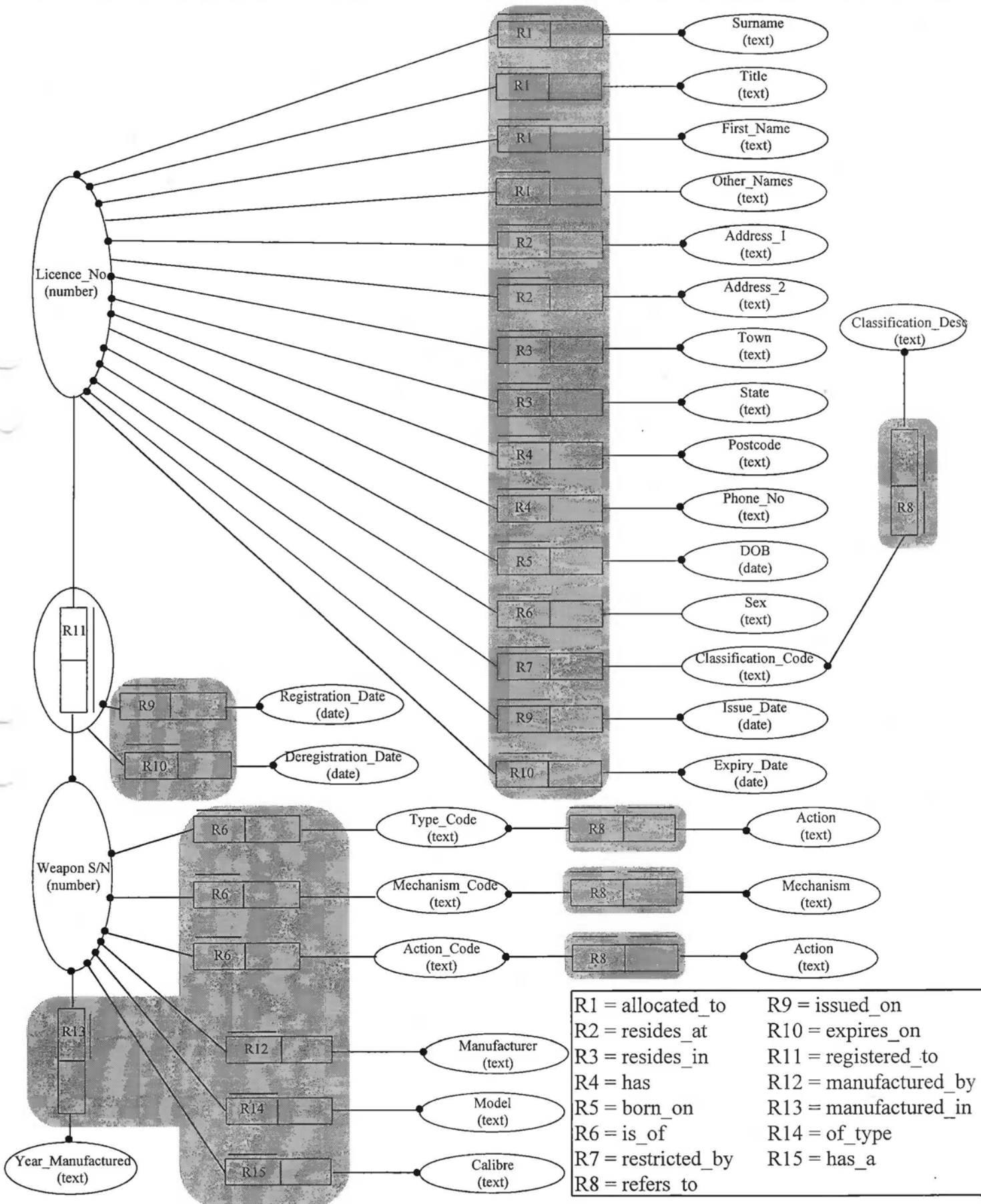
## Elementary Sentences

*Licence\_No* (number) "36925814" allocated\_to *Surname* (text) "HARIMAN".  
*Licence\_No* (number) "36925814" allocated\_to *Title* (text) "MR".  
*Licence\_No* (number) "36925814" allocated\_to *First\_Name* (text) "JUSUF".  
*Licence\_No* (number) "36925814" allocated\_to *Other\_Names* (text) "LACHLAN".  
*Licence\_No* (number) "36925814" resides\_at *Address\_1* (text) "'WINDSOR PARK STATION'".  
*Licence\_No* (number) "36925814" resides\_at *Address\_2* (text) "WINDSOR MOUNTAIN ROAD".  
*Licence\_No* (number) "36925814" resides\_in *Town* (text) "WAPPINGERS FALLS".  
*Licence\_No* (number) "36925814" resides\_in *State* (text) "WA".  
*Licence\_No* (number) "36925814" has *Postcode* (text) "6783".  
*Licence\_No* (number) "36925814" has *Phone\_No* (text) "08 3848305".  
*Licence\_No* (number) "36925814" born\_on *DOB* (date) "9/2/71".  
*Licence\_No* (number) "36925814" is\_of *Sex* (text) "M".  
*Licence\_No* (number) "36925814" restricted\_by *Classification\_Code* (text) "M".  
*Classification\_Code* (text) "A" refers\_to *Classification\_Desc* (text) "MILITARY".  
*Licence\_No* (counter) "47982391" issued\_on *Issue\_Date* (date) "29/7/91".  
*Licence\_No* (counter) "47982391" expires\_on *Expiry\_Date* (date) "28/7/95".  
*Weapon\_SN* (text) "C1273849" registered\_to *Licence\_No* (number) "36925814".  
*Weapon\_SN* (text) "C1273849" registered\_on *Registration\_Date* (date) "29/7/91".  
*Weapon\_SN* (text) "C1273849" deregistered\_on *Deregistration\_Date* (date) "30/6/94".  
*Weapon\_SN* (text) "C1273849" manufactured\_by *Manufacturer* (text) "WINCHESTER".  
*Weapon\_SN* (text) "C1273849" manufactured\_in *Year\_Manufactured* (text) "1982".  
*Weapon\_SN* (text) "C1273849" of\_type *Model* (text) "22".  
*Weapon\_SN* (text) "C1273849" has\_a *Calibre* (text) "6".  
*Weapon\_SN* (text) "C1273849" is\_of *Type\_Code* (text) "R".  
*Type\_Code* (text) "R" refers\_to *Type* (text) "RIFLE".  
*Weapon\_SN* (text) "C1273849" is\_of *Mechanism\_Code* (text) "S".  
*Mechanism\_Code* (text) "S" refers\_to *Mechanism* (text) "SINGLE SHOT".  
*Weapon\_SN* (text) "C1273849" is\_of *Action\_Code* (text) "B".  
*Action\_Code* (text) "B" refers\_to *Action* (text) "BOLT".

## Conceptual Schema



## Optimal Normal Form



## Relational Schema

Personal Details = [Licence\_No, Surname, Title, First\_Name, Other\_Names, Address\_1, Address\_2, Town, State, Postcode, Phone\_No, DOB, Sex, Classification\_Code, Issue\_Date, Expiry\_Date]

Licence Classifications = [Classification Code, Classification Desc]

Weapon Registration = [Licence\_No, Weapon\_SN, Registration\_Date, Deregistration\_Date]<sub>OP</sub>

Weapon Details = [Weapon\_SN, Manufacturer, Year\_Manufactured, Model, Calibre, Type\_Code, Mechanism Code, Action Code]

Type Codes = [Type\_Code, Type]

**Mechanism Codes = [Mechanism Code, Mechanism]**

**Action Codes = [Action Code, Action]**



## Data Dictionary

Action	Text(15)
Action_Code	Text(1)
Address_1	Text(25)
Address_2	Text(25)
Calibre	Text(2)
Classification_Code	Text(1)
Classification_Desc	Text(15)
Deregistration_Date	Date/Time(d/m/yyyy)
DOB	Date/Time(d/m/yyyy)
Expiry_Date	Date/Time(d/m/yyyy)
First_Name	Text(25)
Issue_Date	Date/Time(d/m/yyyy)
Licence_No	Number(Long Integer)
Manufacturer	Text(25)
Mechanism	Text(15)
Mechanism_Code	Text(1)
Model	Text(10)
Other_Names	Text(50)
Phone_No	Text(14)
Postcode	Text(4)
Registration_Date	Date/Time(d/m/yyyy)
Sex	Text(1)
State	Text(3)
Surname	Text(25)
Title	Text(4)
Town	Text(25)
Type	Text(15)
Type_Code	Text(1)
Weapon_SN	Text(10)
Year_Manufactured	Text(4)

## Data Definition

### Personal Details

(Licence_No	Number(Long Integer)	Key,
Surname	Text(25)	Not Null,
Title	Text(4)	Not Null,
First_Name	Text(25)	Not Null,
Other_Names	Text(50),	
Address_1	Text(25)	Not Null,
Address_2	Text(25),	
Town	Text(25)	Not Null,
State	Text(3)	Not Null,
Postcode	Text(4)	Not Null,
Phone_No	Text(14),	
DOB	Date/Time(d/m/yyyy)	Not Null,
Sex	Text(1)	Not Null,
Classification_Code	Text(1)	Not Null,
Issue_Date	Date/Time(d/m/yyyy)	Not Null,
Expiry_Date	Date/Time(d/m/yyyy)	Not Null)

### Licence Classifications

(Classification_Code	Text(1)	Key,
Classification_Desc	Text(15)	Not Null)

### Weapon Registration

(Licence_No	Number(Long Integer)	Not Null,
Weapon_SN	Text(10)	Not Null,
Registration_Date	Date/Time(d/m/yyyy)	Not Null,
Deregistration_Date	Date/Time(d/m/yyyy))	

### Weapon Details

(Weapon_SN	Text(10)	Key,
Manufacturer	Text(25)	Not Null,
Year_Manufactured	Text(4)	Not Null,
Model	Text(10)	Not Null,
Calibre	Text(2)	Not Null,
Type_Code	Text(1)	Not Null,
Mechanism_Code	Text(1)	Not Null,
Action_Code	Text(1)	Not Null)

### Type Codes

(Type_Code	Text(1)	Key,
Type	Text(15)	Not Null)

### Mechanism Codes

(Mechanism_Code	Text(1)	Key,
Mechanism	Text(15)	Not Null)

### Action Codes

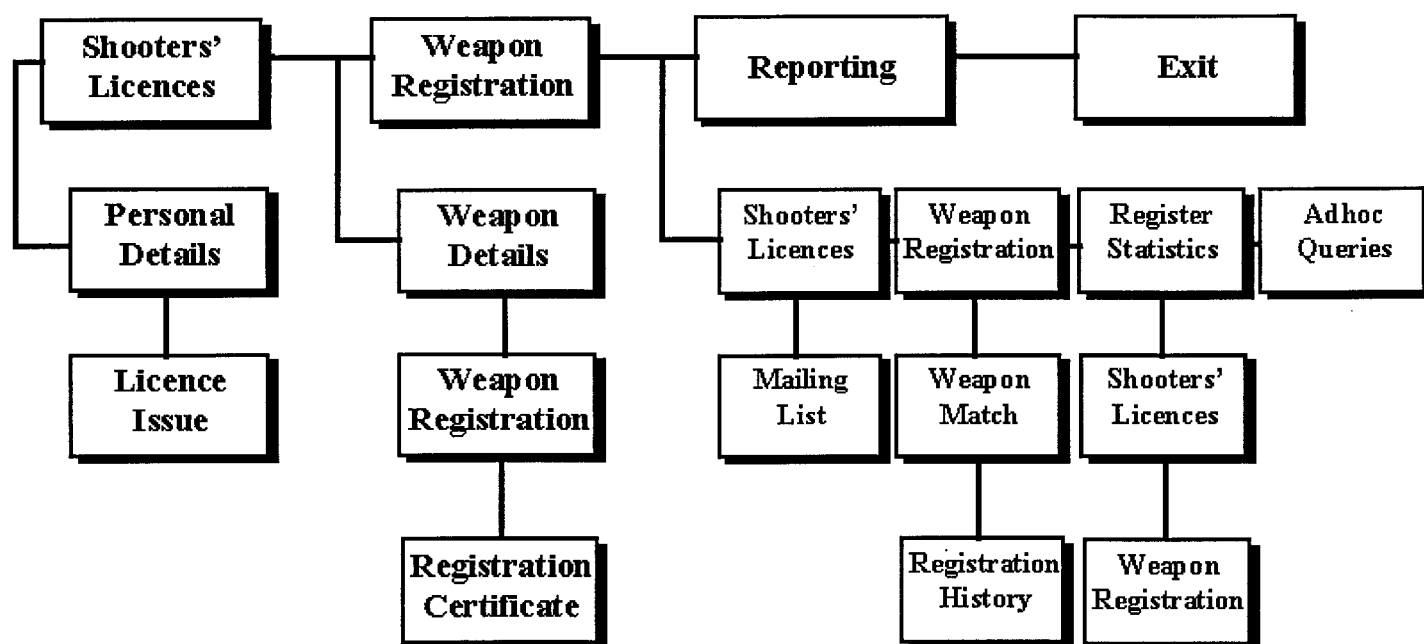
(Action_Code	Text(1)	Key,
Action	Text(15)	Not Null)

## Indexes

Index Name	Table Name	Index Type	Column Name
Action_Code_Index	Action Codes	Unique	Action_Code
Classification_Code_Index	Licence Classifications	Unique	Classification_Code
Licence_No_Index	Personal Details	Unique	Licence_No
Mechanism_Code_Index	Mechanism Codes	Unique	Mechanism_Code
Type_Code_Index	Type Codes	Unique	Type_Code
Weapon_SN_Index	Weapon Details	Unique	Weapon_SN

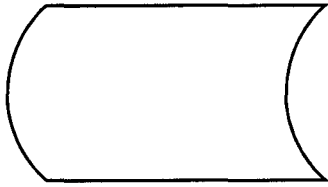
## Hierarchical Chart

### MAIN MENU



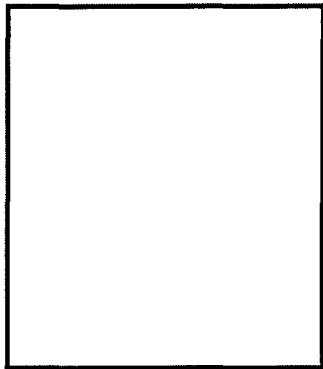
## Information Flow Diagrams

### Query: Licence Issue

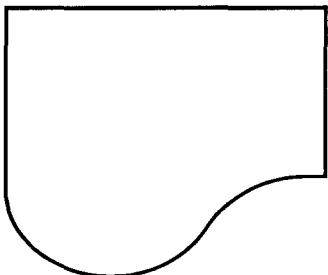


Personal Details = [**Licence\_No**, Surname, Title, First\_Name, Other\_Names, Address\_1, Address\_2, Town, State, Postcode, Phone\_No, DOB, Sex, Classification\_Code, Issue\_Date, Expiry\_Date]

Licence Classifications = [**Classification\_Code**, Classification\_Desc]



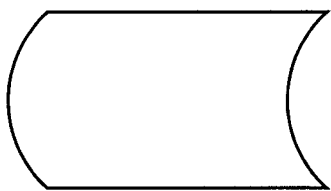
```
SELECT DISTINCTROW [Personal Details].Expiry_Date, [Personal  
Details].Licence_No, [Personal Details].Surname, [Personal  
Details].First_Name, [Personal Details].Other_Names, [Personal  
Details].Address_1, [Personal Details].Address_2, [Personal Details].Town,  
[Personal Details].State, [Personal Details].Postcode, [Personal Details].DOB,  
[Personal Details].Sex, [Personal Details].Issue_Date, [Licence  
Classifications].Classification_Desc  
FROM [Licence Classifications] INNER JOIN [Personal Details] ON [Licence  
Classifications].Classification_Code = [Personal Details].Classification_Code  
WHERE ((([Personal Details].Licence_No=[Enter Licence Number for Licence  
Issue])));
```



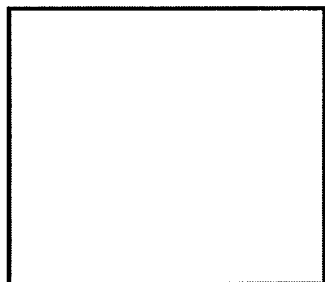
Identity and personal details of the licensee, as required for a printed licence, given the licensee's licence number.



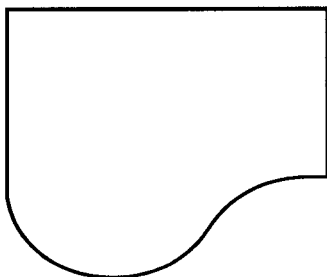
**Query: Mailing List - Expired Licences**



Personal Details = [Licence\_No, Surname, Title, First\_Name, Other\_Names, Address\_1, Address\_2, Town, State, Postcode, Phone\_No, DOB, Sex, Classification\_Code, Issue\_Date, Expiry\_Date]

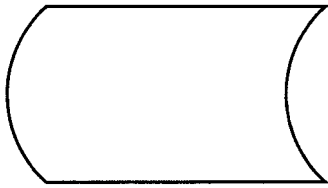


```
SELECT DISTINCTROW [Personal Details].Surname, [Personal Details].Title,  
[Personal Details].First_Name, [Personal Details].Address_1, [Personal  
Details].Address_2, [Personal Details].Town, [Personal Details].State, [Personal  
Details].Postcode  
FROM [Personal Details]  
WHERE ((([Personal Details].Expiry_Date<=Now()))  
ORDER BY [Personal Details].Surname, [Personal Details].First_Name;
```

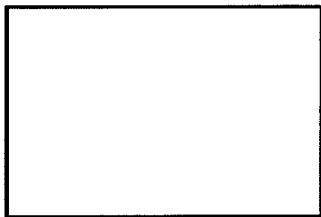


Mailing list of licensees' names and postal addresses, given that their licences are expired.

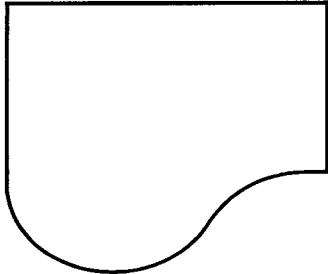
**Query: Statistics - Licences per State**



Personal Details = [Licence\_No, Surname, Title, First\_Name, Other\_Names, Address\_1, Address\_2, Town, State, Postcode, Phone\_No, DOB, Sex, Classification\_Code, Issue\_Date, Expiry\_Date]

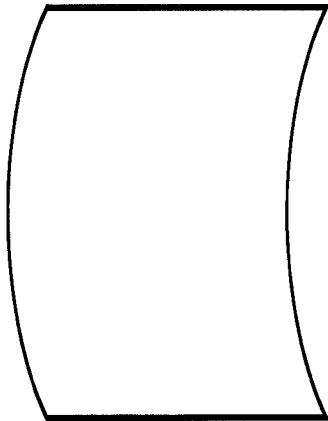


```
SELECT DISTINCTROW [Personal Details].State, Count([Personal  
Details].Licence_No) AS [Number]  
FROM [Personal Details]  
GROUP BY [Personal Details].State  
ORDER BY [Personal Details].State;
```



Statistical count of licensed persons, per each state.

**Query: Statistics - Weapons (Mechanisms) per State**

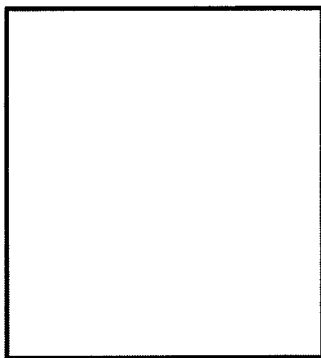


Personal Details = [**Licence\_No**, Surname, Title, First\_Name, Other\_Names, Address\_1, Address\_2, Town, State, Postcode, Phone\_No, DOB, Sex, Classification\_Code, Issue\_Date, Expiry\_Date]

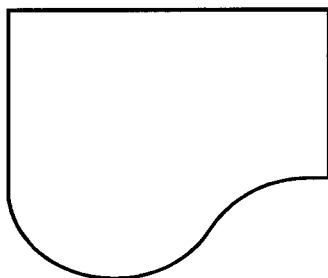
Weapon Registration = [Licence\_No, Weapon\_SN, Registration\_Date, Dereistration\_Date]

Weapon Details = [**Weapon\_SN**, Manufacturer, Year\_Manufactured, Model, Calibre, Type\_Code, Mechanism\_Code, Action\_Code]

Mechanism Codes = [**Mechanism\_Code**, Mechanism]

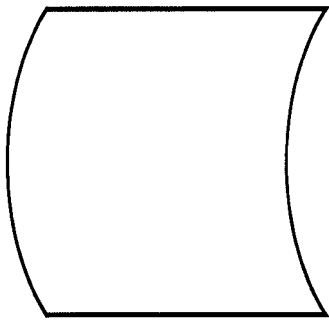


```
SELECT DISTINCTROW [Personal Details].State, [Mechanism Codes].Mechanism, Count([Weapon Details].Weapon_SN) AS [Number]
FROM ([Mechanism Codes] INNER JOIN [Weapon Details] ON [Mechanism Codes].Mechanism_Code = [Weapon Details].Mechanism_Code) INNER JOIN
([Personal Details] INNER JOIN [Weapon Registration] ON [Personal Details].Licence_No = [Weapon Registration].Licence_No) ON [Weapon Details].Weapon_SN = [Weapon Registration].Weapon_SN
GROUP BY [Personal Details].State, [Mechanism Codes].Mechanism
ORDER BY [Personal Details].State, [Mechanism Codes].Mechanism DESC;
```



Statistical count of registered weapons, grouped according to their type of mechanism, per state.

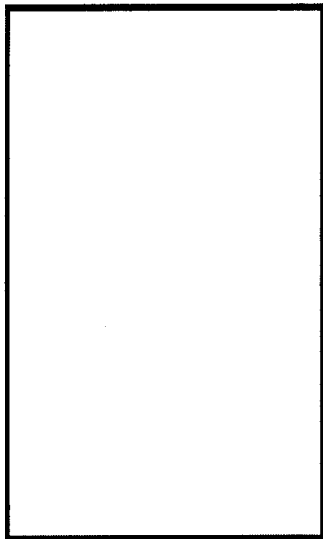
**Query: *Weapon Match - Known Calibre***



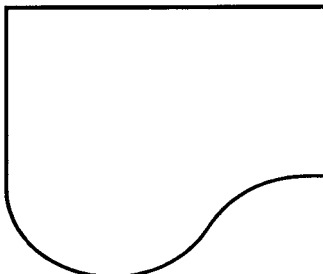
Personal Details = [**Licence\_No**, Surname, Title, First\_Name, Other\_Names, Address\_1, Address\_2, Town, State, Postcode, Phone\_No, DOB, Sex, Classification\_Code, Issue\_Date, Expiry\_Date]

Weapon Registration = [Licence\_No, Weapon\_SN, Registration\_Date, Deregistration\_Date]

Weapon Details = [**Weapon\_SN**, Manufacturer, Year\_Manufactured, Model, Calibre, Type\_Code, Mechanism\_Code, Action\_Code]



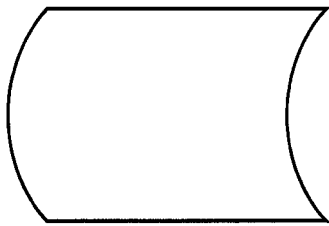
```
SELECT DISTINCTROW [Weapon Details].Weapon_SN, [Personal
Details].Licence_No, [Personal Details].Surname, [Personal Details].Title,
[Personal Details].First_Name, [Personal Details].Other_Names, [Personal
Details].Address_1, [Personal Details].Address_2, [Personal Details].Town,
[Personal Details].State, [Personal Details].Postcode
FROM [Weapon Registration] AS [Weapon Registration_1], [Weapon Details]
INNER JOIN ([Personal Details] INNER JOIN [Weapon Registration] ON
[Personal Details].Licence_No = [Weapon Registration].Licence_No) ON
[Weapon Details].Weapon_SN = [Weapon Registration].Weapon_SN
WHERE (([Weapon Details].Calibre=[Enter Calibre]) AND ([Weapon
Registration].Deregistration_Date Is Null))
ORDER BY [Personal Details].State, [Personal Details].Town, [Personal
Details].Surname, [Personal Details].First_Name, [Personal
Details].Other_Names;
```



Weapon serial numbers and current licensed owner's identity and address, given the calibre of the weapon being sought.

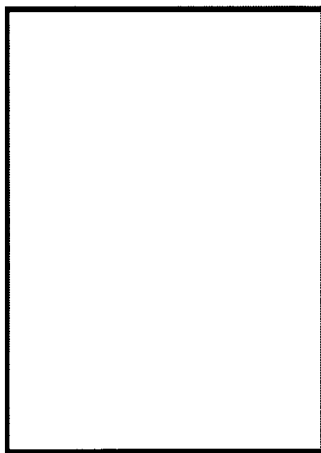


**Query: *Weapon Registration History***

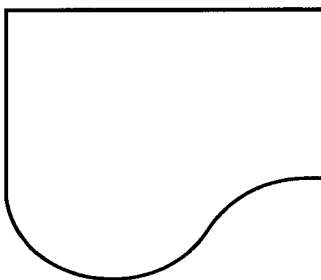


Personal Details = [Licence\_No, Surname, Title, First\_Name, Other\_Names, Address\_1, Address\_2, Town, State, Postcode, Phone\_No, DOB, Sex, Classification\_Code, Issue\_Date, Expiry\_Date]

Weapon Registration = [Licence\_No, Weapon\_SN, Registration\_Date, Deregistration\_Date]



```
SELECT DISTINCTROW [Weapon Registration].Registration_Date, [Personal
Details].Surname, [Personal Details].Title, [Personal Details].First_Name,
[Personal Details].Other_Names, [Personal Details].Address_1, [Personal
Details].Address_2, [Personal Details].Town, [Personal Details].State, [Personal
Details].Postcode
FROM [Personal Details] INNER JOIN [Weapon Registration] ON [Personal
Details].Licence_No = [Weapon Registration].Licence_No
WHERE (([Weapon Registration].Weapon_SN=[Please enter the weapon's
serial number]))
ORDER BY [Weapon Registration].Registration_Date DESC , [Personal
Details].Surname, [Personal Details].First_Name, [Personal
Details].Other_Names;
```



Current and previous identities and addresses of licensees, at any time registered to a particular weapon, given the weapon's serial number.

## Prototype Data

### Personal Details

LICENCE_NO	SURNAME	TITLE	FIRST_NAME	OTHER_NAMES	ADDRESS_1
10833675	SEINFELD	PROF	JERRY		1161 COMIC ROAD
11347011	GORE	MR	AL		"VOTUS ONUS"
20912107	KNIGHT	MR	PHILLIP	MICHAEL JORDAN	9 NIKE STREET
21113115	KLEIN	MR	CALVIN	GAULTIERS	971 SEVENTH AVENUE
58131096	O'CONNOR	MS	SANDRA	DAY	"EQUALITY"
62612081	CLARK	MR	JIM	JERRY GARCIA	1060 NETSCAPE AVENUE
70170299	FARRAKHAN	DR	LOUIS	TOLSTOY	99 IRANIAN ROAD
71065377	MCMAHON	BR	DANIEL	JESU CHRISTE	1 PEARLY GATES ROAD
72737437	HAMILTON	PROF	RONALD	MCDONALD	"ARTINTELLIGO"
74911461	SCOTT	DR	RICHARD	RAINWATER	"LIL' RUSSIA"
78945612	WYTE	MR	LUCAS	DANIEL	ST. BRENDAN'S COLLEGE
84111410	MARSALIS	MR	WYNTON		40 JAZZY LANE
87184109	WILSON	DR	WILLIAM	JULIUS	76 SIGNIFICO STREET
92816817	LOVE	MISS	COURTNEY	KURTNEY	1042 NIRVANA ROAD
96863108	GRIEVOUS	MR	WILLHELMUS	FRANCISCUS	9 HIPPIY AVENUE

ADDRESS_2	TOWN	STATE	POSTCODE	PHONE_NO	DOB
	PAVIA	QLD	4526	07 245457	4/2/1968
611 PRESSO DRIVE	AMES	QLD	4525	07 684525	20/10/1948
	KALAMAZOO	NSW	2854	02 85441546	25/5/1968
	MARTIN	WA	8354	08 82664725	5/10/1968
1 JUSTICE LANE	ABBOTSFORD	NT	5072		6/6/1939
	CANBERRA	ACT	2900	026 268444	5/2/1953
	HEMET	NT	5879	05 456870	6/3/1955
	HEAVEN CENTRAL	NSW	2001	018 018018	17/7/1930
42 DOUG ADAMS	PALMERSTON NORTH	VIC	3587	06 45872552	1/1/1901
909 CZAR STREET	WYNCOTE	VIC	3877	06 65100151	8/7/1957
MARY'S MOUNT	YEPPON	QLD	4703	041 9668481	4/4/1979
	SURREY	TAS	7239	012 225841	2/2/1979
	LAHORE	SA	9310	09 7821004	6/10/1956
	MANITOWOC	QLD	4201		31/1/1948
	WOODSTOCK	SA	9502	09 8724265	6/9/1969

SEX	CLASSIFICATION_CODE	ISSUE_DATE	EXPIRY_DATE
M	C	5/11/1985	9/8/1987
M	S	2/8/1996	2/8/2000
M	G	7/9/1992	7/9/1996
M	G	7/4/1990	7/4/1994
F	G	2/12/1983	1/1/1986
M	C	1/8/1996	1/8/2000
M	P	8/4/1988	8/4/1992
M	C	22/4/1986	15/9/1989
M	G	2/8/1996	2/8/2000
M	P	1/8/1996	1/8/2000
M	G	1/8/1996	1/8/2000
M	S	1/8/1996	1/8/2000
M	M	1/8/1996	1/8/2000
F	X	2/8/1996	2/8/2000
M	M	14/5/1991	14/5/1995

## Licence Classifications

CLASSIFICATION_CODE	CLASSIFICATION_DESC
C	CLUB SHOOTER
G	GENERAL
M	MILITARY
P	POLICE
S	SECURITY PRO
X	COLLECTOR

## Weapon Registration

LICENCE_NO	WEAPON_SN	REGISTRATION_DATE	DEREGISTRATION_DATE
10833675	B37994	15/12/1986	4/4/1987
78945612	B9311036	2/8/1996	
84111410	B9311036	2/8/1996	
62612081	C104428	2/8/1996	
58131096	F1024126	2/1/1985	1/1/1986
87184109	F1024126	2/8/1996	
74911461	M10321034	2/8/1996	
78945612	M10321034	2/8/1996	
58131096	M135282	12/4/1985	1/1/1986
92816817	M912959	2/8/1996	
21113115	R6271186	8/7/1991	19/10/1993
74911461	R6271186	2/8/1996	
10833675	R6271186	25/5/1985	9/8/1987
20912107	S1175765	14/11/1992	14/9/1996
78945612	S133137	2/8/1996	
84111410	W10051056	2/8/1996	
10833675	W10051056	5/11/1985	9/8/1987
74911461	W11181074	15/11/1996	
78945612	W11181074	2/8/1996	
87184109	W1202920	2/9/1996	
21113115	X804156	10/6/1990	21/4/1991
20912107	Y1142682	7/9/1992	7/9/1996

## Weapon Details

WEAPON_SN	MANUFACTURER	YEAR	MODEL	CALIBRE	TYPE_CODE	MECHANISM_COD	ACTION_CODE
B37994	BENTLEY	1980	HUNTER	12	R	S	B
B9311036	BENTLEY	1982	HUNTER	12	R	S	B
C104428	CBC	1981	ELITE	8	R	R	M
F1024126	FRANCHI	1974	EXCALIBUR	8	H	R	L
M10321034	MOSSBERG	1995	190	6	R	S	C
M135282	HECKLER & KOCHI	1968	190	6	R	S	L
M912959	MOSSBERG	1993	BAR	8	R	S	E
R6271186	REMINGTON	1974	500	12	R	R	M
S1175765	SMITH & WESSON	1990	CARBINE 250	8	H	R	E
S133137	SMITH & WESSON	1982	CARBINE	6	H	S	L
W10051056	WINCHESTER	1977	290D	8	R	R	C
W11181074	WINCHESTER	1976	290	8	R	R	L
W1202920	WINCHESTER	1978	290	8	R	S	L
X804156	BERETTA	1988	SHOT TRAP	6	R	R	C
Y1142682	BROWNING	1979	A390	12	R	R	E

## Type Codes

TYPE_CODE	TYPE
H	HANDGUN
R	RIFLE

### Mechanism Codes

MECHANISM_CODE	MECHANISM
R	REPEATER
S	SINGLE SHOT

### Action Codes

ACTION_CODE	ACTION
B	BOLT
C	CYLINDER
E	LEVER MARTINI
L	LEVER
M	MUZZLE



## Formatted Reports

### Routine Query: Licence Issue

```
SELECT DISTINCTROW [Personal Details].Expiry_Date, [Personal Details].Licence_No, [Personal
Details].Surname, [Personal Details].First_Name, [Personal Details].Other_Names, [Personal
Details].Address_1, [Personal Details].Address_2, [Personal Details].Town, [Personal Details].State,
[Personal Details].Postcode, [Personal Details].DOB, [Personal Details].Sex, [Personal Details].Issue_Date,
[Licence Classifications].Classification_Desc
FROM [Licence Classifications] INNER JOIN [Personal Details] ON [Licence
Classifications].Classification_Code = [Personal Details].Classification_Code
WHERE (([Personal Details].Licence_No=[Enter Licence Number for Licence Issue]));
```

### Query: Licence Issue


EXPIRY DATE	LICENCE NUMBER	SURNAME	FIRST NAME	OTHER NAMES	ADDRESS
1/8/2000	78945612	WYTE	LUCAS	DANIEL	ST. BRENDAN'S COLLEGE

ADDRESS	TOWN	STATE	POSTCODE	D.O.B.	SEX	ISSUE DATE	CLASSIFICATION
MARY'S MOUNT	YEPPOON	QLD	4703	4/4/1979	M	1/8/1996	GENERAL

### Report: Licence Issue

## National Firearms and Shooters Register

### LICENCED AUSTRALIAN SHOOTER



Australian Licence: **78945612**  
 Expires: **1/08/00**  
**WYTE**  
**LUCAS DANIEL**  
**ST. BRENDAN'S COLLEGE**  
**MARY'S MOUNT**  
**YEPPOON QLD 4703**

DATE OF BIRTH	SEX
4/04/79	M

EFFECTIVE
1/08/96

Classification  
**GENERAL**

SIGNATURE OF LICENSEE

**ISSUED IN AUSTRALIA**

***Routine Query: Mailing List - Expired Licences***

```
SELECT DISTINCTROW [Personal Details].Surname, [Personal Details].Title, [Personal  
Details].First_Name, [Personal Details].Address_1, [Personal Details].Address_2, [Personal Details].Town,  
[Personal Details].State, [Personal Details].Postcode  
FROM [Personal Details]  
WHERE (([Personal Details].Expiry_Date<=Now()))  
ORDER BY [Personal Details].Surname, [Personal Details].First_Name;
```

***Query: Mailing List - Expired Licences***

SURNAME	TITLE	FIRST NAME	ADDRESS	ADDRESS	TOWN	STATE	POSTCODE
FARRAKHAN	DR	LOUIS	99 IRANIAN ROAD		HEMET	NT	5879
GRIEVOUS	MR	WILLHELMUS	9 HIPPI AVENUE		WOODSTOCK	SA	9502
KLEIN	MR	CALVIN	971 SEVENTH AVENUE		MARTIN	WA	8354
MCMAHON	BR	DANIEL	1 PEARLY GATES ROAD		HEAVEN	NSW	2001
O'CONNOR	MS	SANDRA	"EQUALITY"	1 JUSTICE LANE	ABBOTSFORD	NT	5072
SEINFELD	PROF	JERRY	1161 COMIC ROAD		PAVIA	QLD	4526

***Report: Mailing List - Expired Licences***

MR CALVIN KLEIN  
971 SEVENTH AVENUE  
MARTIN WA 8354

BR DANIEL MCMAHON  
1 PEARLY GATES ROAD  
HEAVEN CENTRAL NSW 2001

MS SANDRA O'CONNOR  
"EQUALITY"  
1 JUSTICE LANE  
ABBOTSFORD NT 5072

PROF JERRY SEINFELD  
1161 COMIC ROAD  
PAVIA QLD 4526

### ***Routine Query: Weapon Match - Known Calibre***

```
SELECT DISTINCTROW [Weapon Details].Weapon_SN, [Personal Details].Licence_No, [Personal
Details].Surname, [Personal Details].Title, [Personal Details].First_Name, [Personal Details].Other_Names,
[Personal Details].Address_1, [Personal Details].Address_2, [Personal Details].Town, [Personal
Details].State, [Personal Details].Postcode
FROM [Weapon Registration] AS [Weapon Registration_1], [Weapon Details] INNER JOIN ([Personal
Details] INNER JOIN [Weapon Registration] ON [Personal Details].Licence_No = [Weapon
Registration].Licence_No) ON [Weapon Details].Weapon_SN = [Weapon Registration].Weapon_SN
WHERE (([Weapon Details].Calibre=[Enter Calibre]) AND ([Weapon Registration].Deregistration_Date Is
Null))
ORDER BY [Personal Details].State, [Personal Details].Town, [Personal Details].Surname, [Personal
Details].First_Name, [Personal Details].Other_Names;
```

### ***Query: Weapon Match - Known Calibre***

WEAPON SERIAL NUMBER	LICENCE NUMBER	SURNAME	TITLE	FIRST NAME	OTHER NAMES
C104428	62612081	CLARK	MR	JIM	JERRY GARCIA
M912959	92816817	LOVE	MISS	COURTNEY	KURTNEY
W11181074	78945612	WYTE	MR	LUCAS	DANIEL
F1024126	87184109	WILSON	DR	WILLIAM	JULIUS
W1202920	87184109	WILSON	DR	WILLIAM	JULIUS
W10051056	84111410	MARSALIS	MR	WYNTON	
W11181074	74911461	SCOTT	DR	RICHARD	RAINWATER

ADDRESS	ADDRESS	TOWN	STATE	POSTCODE
1060 NETSCAPE AVENUE		CANBERRA	ACT	2900
1042 NIRVANA ROAD		MANITOWOC	QLD	4201
ST. BRENDAN'S COLLEGE	MARY'S MOUNT	YEPPON	QLD	4703
76 SIGNIFICO STREET		LAHORE	SA	9310
76 SIGNIFICO STREET		LAHORE	SA	9310
40 JAZZY LANE		SURREY	TAS	7239
"LIL' RUSSIA"	909 CZAR STREET	WYNCOTE	VIC	3877

**Report: Weapon Match - Known Calibre**

**National Firearms and Shooters Register**  
**Weapon Match - Known Calibre**

05-Aug-96

Weapon Serial Number	Licence Number	Surname	Title	First Name
C104428	62612081	CLARK	MR	JIM
M912959	92816817	LOVE	MISS	COURTNEY
W11181074	78945612	WYTE	MR	LUCAS
F1024126	87184109	WILSON	DR	WILLIAM
W1202920	87184109	WILSON	DR	WILLIAM
W10051056	84111410	MARSALIS	MR	WYNTON
W11181074	74911461	SCOTT	DR	RICHARD

**Matched:** 7



Other Names	Address	Town	State	Postcode
JERRY GARCIA	1060 NETSCAPE AVENU	CANBERRA	ACT	2900
KURTNEY	1042 NIRVANA ROAD	MANITOWOC	QLD	4201
DANIEL	ST. BRENDAN'S COLLE	YEPPON	QLD	4703
JULIUS	76 SIGNIFICO STREET	LAHORE	SA	9310
JULIUS	76 SIGNIFICO STREET	LAHORE	SA	9310
	40 JAZZY LANE	SURREY	TAS	7239
RAINWATER	"LIL' RUSSIA"	WYNCOTE	VIC	3877



### *Routine Query: Weapon Registration History*

```
SELECT DISTINCTROW [Weapon Registration].Registration_Date, [Personal Details].Surname, [Personal Details].Title, [Personal Details].First_Name, [Personal Details].Other_Names, [Personal Details].Address_1, [Personal Details].Address_2, [Personal Details].Town, [Personal Details].State, [Personal Details].Postcode
FROM [Personal Details] INNER JOIN [Weapon Registration] ON [Personal Details].Licence_No = [Weapon Registration].Licence_No
WHERE (([Weapon Registration].Weapon_SN=[Please enter the weapon's serial number]))
ORDER BY [Weapon Registration].Registration_Date DESC , [Personal Details].Surname, [Personal Details].First_Name, [Personal Details].Other_Names;
```

### *Query: Weapon Registration History*

REGISTRATION DATE	SURNAME	TITLE	FIRST NAME	OTHER NAMES	ADDRESS
2/8/1996	SCOTT	DR	RICHARD	RAINWATER	"LIL' RUSSIA"
8/7/1991	KLEIN	MR	CALVIN	GAULTIERS	971 SEVENTH AVENUE
25/5/1985	SEINFELD	PROF	JERRY		1161 COMIC ROAD

ADDRESS	TOWN	STATE	POSTCODE
909 CZAR STREET	WYNCOTE	VIC	3877
	MARTIN	WA	8354
	PAVIA	QLD	4526

### *Report: Weapon Registration History*

**National Firearms and Shooters Register**

**Weapon Registration History**

Registration Date:

Surname:

Title:

First Name:

Other Names:

Address:

Town:

State:

Postcode:

Registration Date:	25/05/85
Surname:	SEINFELD
Title:	PROF
First Name:	JERRY
Other Names:	
Address:	1161 COMIC ROAD
Town:	PAVIA
State:	QLD
Postcode:	4526

## Security Considerations

The National Firearms and Shooters Register contains vitally sensitive and important information, such as personal details of licensees and weapons' information. This information, therefore, needs to be secured and only be accessible to those with the proper authorisation.

Microsoft Access fortunately has inbuilt security. Database encryption offers the Government the ability to encrypt its sensitive data and make that data only readable to MS Access. The package also offers different users different authorisation and access levels. For example, general staff should only be able to input new information such as licensee details and weapon registration. The staff supervisor may have the correct authorisation to change information such as licensee name changes, licence canceling (an earlier expiry date) or deleting weapon details upon the handover of a weapon. Only police and proper Government departments should have access to the reporting systems that matches weapons to calibres, etc. and gives the registration history of such weapons. Only management should have the authorisation to change classifications and default database values.

- The structured system of users in different authorised workgroups would work most effectively in the National Firearms and Shooters Register, especially considering thousands of terminals across the country will be accessing the Register. However, the use of login names and passwords would not be sufficient in the security design of a Federal Government project such as this. Secure, private telephone data lines, unlisted and only connected to the Central Register Server, would be required to effectively safeguard the Register from "hackers" and "unauthorised users". In addition, computer virus protection should be added to the database - no system is ever 100% free from a virus attack.

Finally, in the event of power failure or major system breakdown, tape drives should backup the vital data in the National Firearms and Shooters Register at least twice a day.

## Hardware and Software Requirements

The National Firearms and Shooters Register, using the Microsoft Access front end to the Microsoft Jet database engine, requires each terminal for optimum performance be an IBM-compatible 486DX2-66 computer with access to 6MB RAM, a SVGA monitor, local hard drive, mouse, keyboard, medium speed data modem and a colour laser printer. The individual terminals would then be connected to a WAN, with the Central Register Server at its hub. This server would be an IBM-compatible Pentium 100 computer with access to 32MB RAM, several large hard drive for storage of ALL data sent from each Australian terminal, several high speed data modems and a tape backup drive.

However, such a setup is expensive, so a compromise may need to be made on a state level, with perhaps the use of State Transport terminals and networks.


Regarding software, the MS-DOS 6.0 operating system is required, as well as Microsoft Windows for Workgroups 3.11 or Microsoft Windows NT as the graphical interface to the operating system. For security reasons, a custom-designed Microsoft Windows environment may need to be created, such as that in use at the Commonwealth Bank. Microsoft Access 2.0 is essential to the Register's operation, as it is the central executable program and as encrypted MS Access database files may only be decrypted and read by MS Access itself. They are unable to be translated into any Query Language for security reasons.

## Evaluation

To assist in the evaluation process, I have enlisted the assistance of Mr Simon Wagner, who, while being a competitor in the bidding for the National Firearms and Shooters Register contract being offered by the Federal Government, is an Information Systems expert and is familiar with SQL and the Microsoft Jet database engine.

After critical inspection of the Register's Specification Document, paying particular attention to the Information System's Aim and Objectives, Mr Wagner concluded that the National Firearms and Shooters Register did achieve in providing a solution to the introduction of such a computerised register. In particular, he remarked at the suitability of using the Microsoft Access package, discovering that the database had the potential for being compatible with a number of other systems, such as word processing and accounting, as included in the Microsoft Office package. Mr Wagner was however somewhat surprised by my decision to provide user documentation in the traditional "on paper" format, commenting that he would have preferred a more computerised form of help and documentation. He found the standard report features to be most effective and efficient, and were formatted in a suitable style. Mr Wagner suggested however that the Microsoft Package may not be entirely suitable for performing Adhoc inquiries however, as he believed the syntax required in SQL select queries would be difficult for the general user to input. Yet, he did acknowledge the provision of the Query-By-Example function included in the package.

Overall, Mr Wagner was most interested in my proposal for the National Firearms and Shooters Register, if not perhaps a little embarrassed for his own bid. He found the interface to be most friendly and pleasing to the eye, the documentation most complete, the input of future data to be easy and trouble-free and the security requirements meeting expected standards.



Mr Simon Wagner