Case Study A – Expected Results
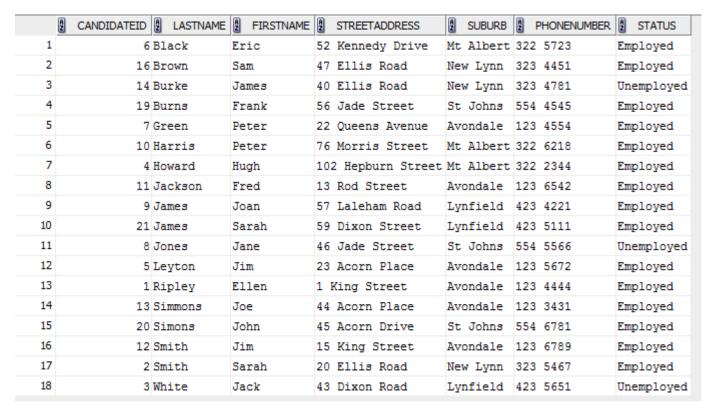
1. Enter, modify or delete candidates.

    - List candidate details (candidate ID, last name, first name, street address, suburb, phone number, status) by first name within last name

	CANDIDATEID	LASTNAME	FIRSTNAME	STREETADDRESS	SUBURB	PHONENUMBER	STATUS
1	6	Black	Eric	52 Kennedy Drive	Mt Albert	322 5723	Employed
2	16	Brown	Sam	47 Ellis Road	New Lynn	323 4451	Employed
3	14	Burke	James	40 Ellis Road	New Lynn	323 4781	Unemployed
4	19	Burns	Frank	56 Jade Street	St Johns	554 4545	Employed
5	7	Green	Peter	22 Queens Avenue	Avondale	123 4554	Employed
6	10	Harris	Peter	76 Morris Street	Mt Albert	322 6218	Employed
7	4	Howard	Hugh	102 Hepburn Street	Mt Albert	322 2344	Employed
8	11	Jackson	Fred	13 Rod Street	Avondale	123 6542	Employed
9	9	James	Joan	57 Laleham Road	Lynfield	423 4221	Employed
10	21	James	Sarah	59 Dixon Street	Lynfield	423 5111	Employed
11	8	Jones	Jane	46 Jade Street	St Johns	554 5566	Unemployed
12	5	Leyton	Jim	23 Acorn Place	Avondale	123 5672	Employed
13	1	Ripley	Ellen	1 King Street	Avondale	123 4444	Employed
14	13	Simmons	Joe	44 Acorn Place	Avondale	123 3431	Employed
15	20	Simons	John	45 Acorn Drive	St Johns	554 6781	Employed
16	12	Smith	Jim	15 King Street	Avondale	123 6789	Employed
17	2	Smith	Sarah	20 Ellis Road	New Lynn	323 5467	Employed
18	3	White	Jack	43 Dixon Road	Lynfield	423 5651	Unemployed

    - List certification details (notes and certification date) for a selected candidate.

To test this query, you need to hard code an ID of any candidate who has certifications. To get the results below, I chose the candidate whose ID is 2:
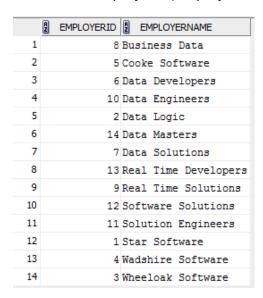
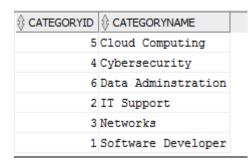| NOTES	CERTIFICATIONDATE
Programming	25/01/18

2. Enter, modify or delete vacancies.

- List vacancy details (vacancy ID, description, type, status, hourly rate, employer name, and category name) by description.

VACANCYID	DESCRIPTION	TYPE	STATUS	HOURLYRATE	EMPLOYERNAME	CATEGORYNAME
5	Analyst Programmer	Full-time	Unfilled	40	Data Developers	Software Developer
15	Control Systems Programmer	Full-time	Unfilled	45	Software Solutions	Software Developer
16	Database Analyst Programmer	Full-time	Unfilled	50	Star Software	Software Developer
12	Database Analyst/Trainer	Full-time	Unfilled	60	Data Engineers	Software Developer
11	Database Developer	Full-time	Unfilled	40	Data Masters	Software Developer
14	Embedded Systems Engineer	Full-time	Unfilled	50	Data Masters	Software Developer
8	Junior Programmer	Full-time	Filled	35	Data Solutions	Software Developer
3	Junior Programmer	Part-time	Filled	30	Data Logic	Software Developer
13	Junior Programmer	Full-time	Unfilled	30	Star Software	Software Developer
9	Programmer	Full-time	Unfilled	45	Data Engineers	Software Developer
4	Senior Programmer	Full-time	Unfilled	45	Data Engineers	Software Developer
7	Senior Software Engineer	Full-time	Unfilled	50	Data Masters	Software Developer
10	Software Developer	Full-time	Unfilled	40	Wheeloak Software	Software Developer
1	Software Developer	Full-time	Unfilled	40	Star Software	Software Developer
6	Software Engineer	Full-time	Filled	40	Software Solutions	Software Developer
2	Software Engineer	Full-time	Unfilled	45	Data Developers	Software Developer

- List employers (employer ID, employer name) by employer name.

	EMPLOYERID	EMPLOYERNAME
1	8	Business Data
2	5	Cooke Software
3	6	Data Developers
4	10	Data Engineers
5	2	Data Logic
6	14	Data Masters
7	7	Data Solutions
8	13	Real Time Developers
9	9	Real Time Solutions
10	12	Software Solutions
11	11	Solution Engineers
12	1	Star Software
13	4	Wadshire Software
14	3	Wheeloak Software

- List categories (category ID, category name) by category name.

CATEGORYID	CATEGORYNAME	
5	Cloud Computing	
4	Cybersecurity	
6	Data Adminstration	
2	IT Support	
3	Networks	
1	Software Developer	

3. <u>Add or remove skills or qualifications to or from a candidate.</u>

- List candidate details (candidate ID, last name, and first name) by first name within last name.
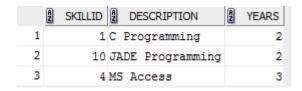
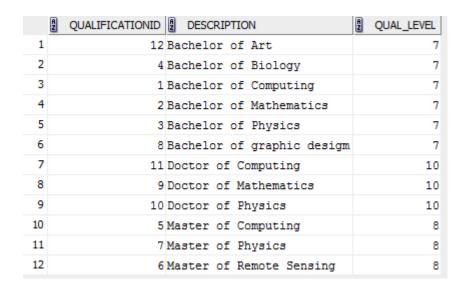|	CANDIDATEID	LASTNAME	FIRSTNAME
1	6	Black	Eric
2	16	Brown	Sam
3	14	Burke	James
4	19	Burns	Frank
5	7	Green	Peter
6	10	Harris	Peter
7	4	Howard	Hugh
8	11	Jackson	Fred
9	9	James	Joan
10	21	James	Sarah
11	8	Jones	Jane
12	5	Leyton	Jim
13	1	Ripley	Ellen
14	13	Simmons	Joe
15	20	Simons	John
16	12	Smith	Jim
17	2	Smith	Sarah
18	3	White	Jack

- List skills (skill id and description) by description.

1	1	C Programming
2	8	C# Programming
3	3	C++ Programming
4	12	COBOL Programming
5	10	JADE Programming
6	2	JAVA Programming
7	4	MS Access
8	5	MS SQL Server
9	16	MS SQL Sever Training
10	7	ORACLE PL/SQL Programming
11	6	ORACLE SQL
12	15	Oracle Database Training
13	11	Python Programming
14	9	UML Analysis
15	13	Visual Basic Programming
16	14	Visual C++ Programming

- List skills (skill id, description, and years) by description for a selected candidate.

To test this query, you need to hard code an ID of any candidate who has one or more skills. To get the results below, I chose the candidate whose ID is 2:

	SKILLID	DESCRIPTION	YEARS
1	1	C Programming	2
2	10	JADE Programming	2
3	4	MS Access	3

- List qualifications (qualification id, level and description) by description.

	QUALIFICATIONID	DESCRIPTION	QUAL_LEVEL
1	12	Bachelor of Art	7
2	4	Bachelor of Biology	7
3	1	Bachelor of Computing	7
4	2	Bachelor of Mathematics	7
5	3	Bachelor of Physics	7
6	8	Bachelor of graphic design	7
7	11	Doctor of Computing	10
8	9	Doctor of Mathematics	10
9	10	Doctor of Physics	10
10	5	Master of Computing	8
11	7	Master of Physics	8
12	6	Master of Remote Sensing	8

- List qualifications (qualification id, level and description) by description for a selected candidate.

To test this query, you need to hard code an ID of any candidate who has one or more qualifications. To get the results below, I chose the candidate whose ID is 4:

	QUALIFICATIONID	QUAL_LEVEL	DESCRIPTION
1	4	7	Bachelor of Biology
2	5	8	Master of Computing

4. <u>Add or remove skills or qualifications to or from a vacancy.</u>

- List vacancy details (vacancy ID, description, and employer name) for unfilled vacancies only by description.
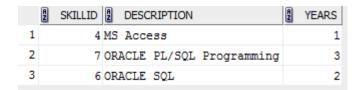
	VACANCYID	DESCRIPTION	EMPLOYERNAME
1	5	Analyst Programmer	Data Developers
2	15	Control Systems Programmer	Software Solutions
3	16	Database Analyst Programmer	Star Software
4	12	Database Analyst/Trainer	Data Engineers
5	11	Database Developer	Data Masters
6	14	Embedded Systems Engineer	Data Masters
7	13	Junior Programmer	Star Software
8	9	Programmer	Data Engineers
9	4	Senior Programmer	Data Engineers
10	7	Senior Software Engineer	Data Masters
11	1	Software Developer	Star Software
12	10	Software Developer	Wheeloak Software
13	2	Software Engineer	Data Developers

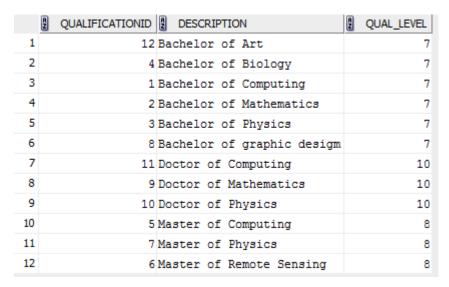- List skills (skill id and description) by description.

1	1	C Programming
2	8	C# Programming
3	3	C++ Programming
4	12	COBOL Programming
5	10	JADE Programming
6	2	JAVA Programming
7	4	MS Access
8	5	MS SQL Server
9	16	MS SQL Sever Training
10	7	ORACLE PL/SQL Programming
11	6	ORACLE SQL
12	15	Oracle Database Training
13	11	Python Programming
14	9	UML Analysis
15	13	Visual Basic Programming
16	14	Visual C++ Programming

- List skills (skill id, description, and years) by description for a selected vacancy.

To test this query, you need to hard code an ID of any vacancy that has one or more skills. To get the results below, I chose the vacancy whose ID is 16.
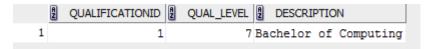
	SKILLID	DESCRIPTION	YEARS
1	4	MS Access	1
2	7	ORACLE PL/SQL Programming	3
3	6	ORACLE SQL	2

- List qualifications (qualification id, level and description) by description.

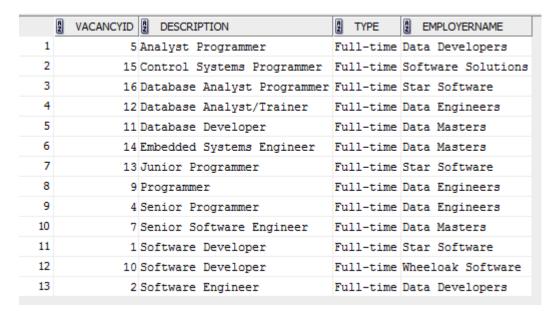|	QUALIFICATIONID	DESCRIPTION	QUAL_LEVEL
1	12	Bachelor of Art	7
2	4	Bachelor of Biology	7
3	1	Bachelor of Computing	7
4	2	Bachelor of Mathematics	7
5	3	Bachelor of Physics	7
6	8	Bachelor of graphic desigm	7
7	11	Doctor of Computing	10
8	9	Doctor of Mathematics	10
9	10	Doctor of Physics	10
10	5	Master of Computing	8
11	7	Master of Physics	8
12	6	Master of Remote Sensing	8

- List qualifications (qualification id, level and description) by description for a selected vacancy.

To test this query, you need to hard code an ID of any vacancy that has one or more qualifications. To get the results below, I chose the vacancy whose ID is 2.

	QUALIFICATIONID	QUAL_LEVEL	DESCRIPTION
1	1	7	Bachelor of Computing

5. <u>Apply a candidate to a vacancy.</u>

- List vacancy details (vacancy ID, description, type, and employer name) for unfilled vacancies only by description.
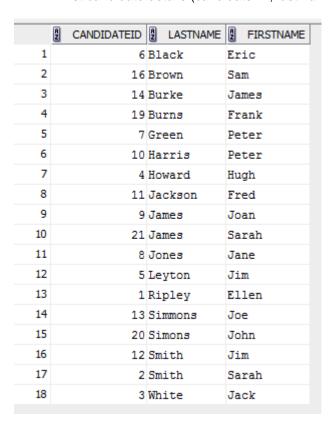
	VACANCYID	DESCRIPTION	TYPE	EMPLOYERNAME
1	5	Analyst Programmer	Full-time	Data Developers
2	15	Control Systems Programmer	Full-time	Software Solutions
3	16	Database Analyst Programmer	Full-time	Star Software
4	12	Database Analyst/Trainer	Full-time	Data Engineers
5	11	Database Developer	Full-time	Data Masters
6	14	Embedded Systems Engineer	Full-time	Data Masters
7	13	Junior Programmer	Full-time	Star Software
8	9	Programmer	Full-time	Data Engineers
9	4	Senior Programmer	Full-time	Data Engineers
10	7	Senior Software Engineer	Full-time	Data Masters
11	1	Software Developer	Full-time	Star Software
12	10	Software Developer	Full-time	Wheeloak Software
13	2	Software Engineer	Full-time	Data Developers

- List applications (candidate's last name and first name) for a selected vacancy by candidate's last name

To test this query, you need to hard code an ID of any vacancy that has one or more application. To get the results below, I chose the vacancy whose ID is 8.
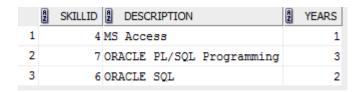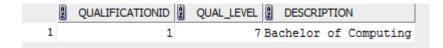
	LASTNAME	FIRSTNAME
1	Simmons	Joe

- List candidate details (candidate ID, last name, and first name) by first name within last name.

	CANDIDATEID	LASTNAME	FIRSTNAME
1	6	Black	Eric
2	16	Brown	Sam
3	14	Burke	James
4	19	Burns	Frank
5	7	Green	Peter
6	10	Harris	Peter
7	4	Howard	Hugh
8	11	Jackson	Fred
9	9	James	Joan
10	21	James	Sarah
11	8	Jones	Jane
12	5	Leyton	Jim
13	1	Ripley	Ellen
14	13	Simmons	Joe
15	20	Simons	John
16	12	Smith	Jim
17	2	Smith	Sarah
18	3	White	Jack

- List skills (skill id, description, and years) by description for a selected vacancy.

To test this query, you need to hard code an ID of any vacancy that has one or more skills. To get the results below, I chose the vacancy whose ID is 16.
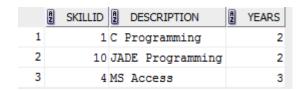
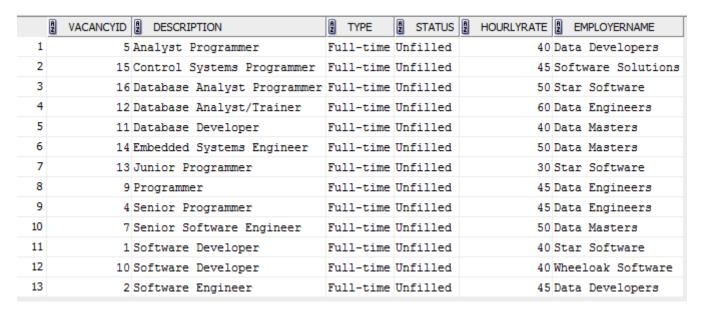|	SKILLID	DESCRIPTION	YEARS
1	4	MS Access	1
2	7	ORACLE PL/SQL Programming	3
3	6	ORACLE SQL	2

- List qualifications (qualification id, level and description) by description for a selected vacancy.

To test this query, you need to hard code an ID of any vacancy that has one or more qualifications. To get the results below, I chose the vacancy whose ID is 2.

	QUALIFICATIONID	QUAL_LEVEL	DESCRIPTION
1	1	7	Bachelor of Computing

- List skills (skill id, description, and years) by description for a selected candidate.

To test this query, you need to hard code an ID of any candidate that has one or more skills. To get the results below, I chose the candidate whose ID is 2.

	SKILLID	DESCRIPTION	YEARS
1	1	C Programming	2
2	10	JADE Programming	2
3	4	MS Access	3

- List qualifications (qualification id, level and description) by description for a selected candidate.

To test this query, you need to hard code an ID of any candidate that has one or more qualifications. To get the results below, I chose the candidate whose ID is 4:

	QUALIFICATIONID	QUAL_LEVEL	DESCRIPTION
1	4	7	Bachelor of Biology
2	5	8	Master of Computing

6. Mark a vacancy as filled.

- List vacancy details (vacancy ID, description, type, hourly rate and employer name) for unfilled vacancies only by description.

	VACANCYID	DESCRIPTION	TYPE	STATUS	HOURLYRATE	EMPLOYERNAME
1	5	Analyst Programmer	Full-time	Unfilled	40	Data Developers
2	15	Control Systems Programmer	Full-time	Unfilled	45	Software Solutions
3	16	Database Analyst Programmer	Full-time	Unfilled	50	Star Software
4	12	Database Analyst/Trainer	Full-time	Unfilled	60	Data Engineers
5	11	Database Developer	Full-time	Unfilled	40	Data Masters
6	14	Embedded Systems Engineer	Full-time	Unfilled	50	Data Masters
7	13	Junior Programmer	Full-time	Unfilled	30	Star Software
8	9	Programmer	Full-time	Unfilled	45	Data Engineers
9	4	Senior Programmer	Full-time	Unfilled	45	Data Engineers
10	7	Senior Software Engineer	Full-time	Unfilled	50	Data Masters
11	1	Software Developer	Full-time	Unfilled	40	Star Software
12	10	Software Developer	Full-time	Unfilled	40	Wheeloak Software
13	2	Software Engineer	Full-time	Unfilled	45	Data Developers

- List applications (status, candidate's last name and first name) for a selected vacancy by candidate's last name

To test this query, you need to hard code an ID of any vacancy that has one or more applications. To get the results below, I chose the vacancy whose ID is 8:

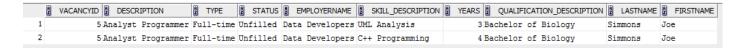|	LASTNAME	FIRSTNAME
1	Simmons	Joe

7. <u>All filled vacancies.</u>

- For each filled vacancy list the vacancy id, description, type, status, category name, employer name, employer street address, employer suburb, descriptions of skills, and descriptions of qualifications.

VACANCYID	DESCRIPTION	TYPE	STATUS	CATEGORYNAME	EMPLOYERNAME	STREETADDRESS	SUBURB	SKILL_QUALIFICATION
3	Junior Programmer	Part-time	Filled	Software Developer	Data Logic	32 Logan Road	Grafton	Bachelor of Computing
8	Junior Programmer	Full-time	Filled	Software Developer	Data Solutions	68 Crocus Road	Newmarket	JAVA Programming

8. <u>All unfilled vacancies.</u>

- For each unfilled vacancy list the vacancy id, description, type, status, category name, employer name, employer street address, employer suburb, descriptions of skills, and descriptions of qualifications.

VACANCYID	DESCRIPTION	TYPE	STATUS	CATEGORYNAME	EMPLOYERNAME	STREETADDRESS	SUBURB	SKILL_QUALIFICATION
2	Software Engineer	Full-time	Unfilled	Software Developer	Data Developers	92 Chester Street	Parnell	Bachelor of Computing
2	Software Engineer	Full-time	Unfilled	Software Developer	Data Developers	92 Chester Street	Parnell	C Programming
5	Analyst Programmer	Full-time	Unfilled	Software Developer	Data Developers	92 Chester Street	Parnell	Bachelor of Biology
5	Analyst Programmer	Full-time	Unfilled	Software Developer	Data Developers	92 Chester Street	Parnell	C++ Programming
5	Analyst Programmer	Full-time	Unfilled	Software Developer	Data Developers	92 Chester Street	Parnell	UML Analysis
9	Programmer	Full-time	Unfilled	Software Developer	Data Engineers	61 Ingram Street	Parnell	C# Programming
9	Programmer	Full-time	Unfilled	Software Developer	Data Engineers	61 Ingram Street	Parnell	ORACLE SQL
13	Junior Programmer	Full-time	Unfilled	Software Developer	Star Software	12 Balfour Street	Parnell	C# Programming
16	Database Analyst Programmer	Full-time	Unfilled	Software Developer	Star Software	12 Balfour Street	Parnell	MS Access
16	Database Analyst Programmer	Full-time	Unfilled	Software Developer	Star Software	12 Balfour Street	Parnell	ORACLE PL/SQL Programming
16	Database Analyst Programmer	Full-time	Unfilled	Software Developer	Star Software	12 Balfour Street	Parnell	ORACLE SQL

9. <u>All unfilled vacancies with candidates interested.</u>

    - For each unfilled vacancy list the vacancy id, description, type, status, employer name, descriptions and years of skills, descriptions of qualifications and full names of the candidates.

	VACANCYID	DESCRIPTION	TYPE	STATUS	EMPLOYERNAME	SKILL_DESCRIPTION	YEARS	QUALIFICATION_DESCRIPTION	LASTNAME	FIRSTNAME
1	5	Analyst Programmer	Full-time	Unfilled	Data Developers	UML Analysis	3	Bachelor of Biology	Simmons	Joe
2	5	Analyst Programmer	Full-time	Unfilled	Data Developers	C++ Programming	4	Bachelor of Biology	Simmons	Joe

10. Vacancies by Category.

- For each vacancy list the vacancy id, description, hourly rate, and category name. Sort by category name.

VACANCYID	DESCRIPTION	HOURLYRATE	CATEGORYNAME
1	Software Developer	40	Software Developer
16	Database Analyst Programmer	50	Software Developer
3	Junior Programmer	30	Software Developer
4	Senior Programmer	45	Software Developer
5	Analyst Programmer	40	Software Developer
6	Software Engineer	40	Software Developer
7	Senior Software Engineer	50	Software Developer
8	Junior Programmer	35	Software Developer
9	Programmer	45	Software Developer
10	Software Developer	40	Software Developer
11	Database Developer	40	Software Developer
12	Database Analyst/Trainer	60	Software Developer
13	Junior Programmer	30	Software Developer
14	Embedded Systems Engineer	50	Software Developer
15	Control Systems Programmer	45	Software Developer
2	Software Engineer	45	Software Developer

11. <u>Vacancies by Employer.</u>

- For each vacancy list the vacancy id, type, status, and employer name. Sort by employer name.

VACANCYID	TYPE	STATUS	EMPLOYERNAME
5	Full-time	Unfilled	Data Developers
2	Full-time	Unfilled	Data Developers
4	Full-time	Unfilled	Data Engineers
9	Full-time	Unfilled	Data Engineers
12	Full-time	Unfilled	Data Engineers
3	Part-time	Filled	Data Logic
7	Full-time	Unfilled	Data Masters
11	Full-time	Unfilled	Data Masters
14	Full-time	Unfilled	Data Masters
8	Full-time	Filled	Data Solutions
6	Full-time	Filled	Software Solutions
15	Full-time	Unfilled	Software Solutions
16	Full-time	Unfilled	Star Software
13	Full-time	Unfilled	Star Software
1	Full-time	Unfilled	Star Software
10	Full-time	Unfilled	Wheeloak Software

12. <u>All Candidates.</u>

- For each candidate list the candidate id, last name, first name, street address, suburb, phone number, status, and certification date (if applicable). Sort by first name within last name.

CANDIDATEID	LASTNAME	FIRSTNAME	STREETADDRESS	SUBURB	PHONENUMBER	STATUS	CERTIFICATIONDATE
6	Black	Eric	52 Kennedy Drive	Mt Albert	322 5723	Employed	14/04/18
16	Brown	Sam	47 Ellis Road	New Lynn	323 4451	Employed	(null)
14	Burke	James	40 Ellis Road	New Lynn	323 4781	Unemployed	(null)
19	Burns	Frank	56 Jade Street	St Johns	554 4545	Employed	(null)
7	Green	Peter	22 Queens Avenue	Avondale	123 4554	Employed	10/01/17
10	Harris	Peter	76 Morris Street	Mt Albert	322 6218	Employed	(null)
4	Howard	Hugh	102 Hepburn Street	Mt Albert	322 2344	Employed	13/03/18
11	Jackson	Fred	13 Rod Street	Avondale	123 6542	Employed	(null)
9	James	Joan	57 Laleham Road	Lynfield	423 4221	Employed	17/05/17
21	James	Sarah	59 Dixon Street	Lynfield	423 5111	Employed	(null)
8	Jones	Jane	46 Jade Street	St Johns	554 5566	Unemployed	11/02/18
5	Leyton	Jim	23 Acorn Place	Avondale	123 5672	Employed	15/01/17
1	Ripley	Ellen	1 King Street	Avondale	123 4444	Employed	19/01/17
13	Simmons	Joe	44 Acorn Place	Avondale	123 3431	Employed	(null)
20	Simons	John	45 Acorn Drive	St Johns	554 6781	Employed	(null)
12	Smith	Jim	15 King Street	Avondale	123 6789	Employed	(null)
2	Smith	Sarah	20 Ellis Road	New Lynn	323 5467	Employed	25/01/18
3	White	Jack	43 Dixon Road	Lynfield	423 5651	Unemployed	21/02/17