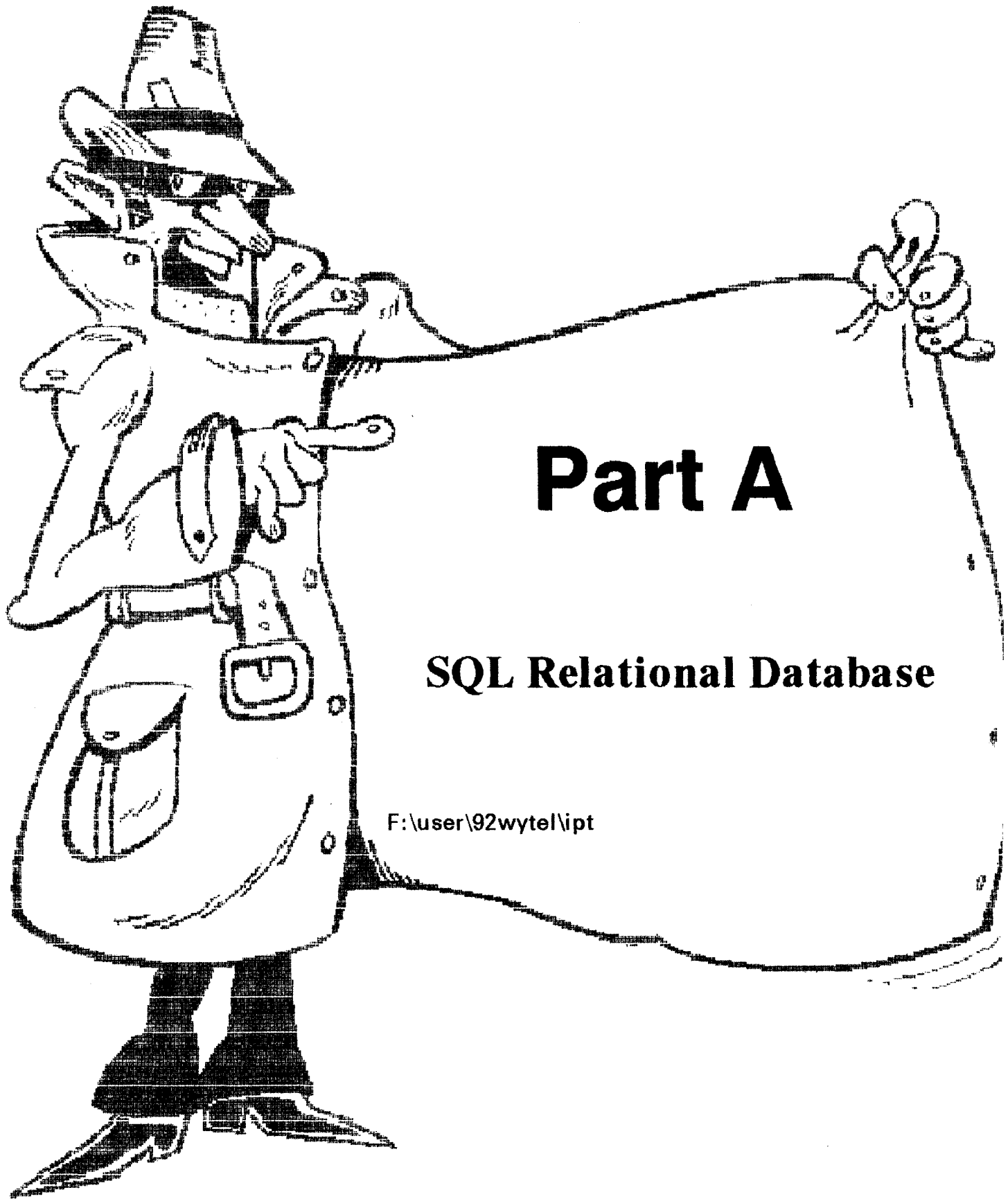


11 IPT

**The Computopia Database
Semester One Assignment**

Lucas Wyte

June 1995.



Part A

SQL Relational Database

F:\user\92wytel\ipt

SELECT Subject
FROM Subjects

* Question 1(a) *

=====

Subject

STRUCTURED PROGRAMMING
SQL1
SQL2
INFORMATION SYSTEMS 1
INFORMATION SYSTEMS 2
PROJECT MANAGEMENT

** Lucas Wyte **

=====

SELECT Name, Id
FROM Students
ORDER BY Name

Name your queries

-ie- 1(b)

SELECT Name, Class
FROM Students
ORDER BY Name

1(c)

SELECT Name
FROM Supervisors
ORDER BY Name

* Question 1(d) *

=====

Name

Butler N
Harrison D
Van M

** Lucas Wyte **

=====

SELECT Name, Year
FROM Students
ORDER BY Year DESC, Name

SELECT Name
FROM Students
ORDER BY Name

SELECT Name, Class
FROM Students
ORDER BY Class, Name

```
SELECT Subject_code
FROM Results
WHERE Id='8711'
ORDER BY Subject_code
```

* Question 3(a) *

Subject_code

IS212
IS301
IS303

** Lucas Wyte **

```
SELECT Name
FROM Students
WHERE Class='b'
ORDER BY Name
```

* Question 3(b) *

Name

BISHOP T
BOLTON C
BUNKER L
COLTER F
FINNANE L
NG A

** Lucas Wyte **

```
SELECT Id, Subject_code
FROM Results
WHERE Rating=7
ORDER BY Id, Subject_code
```

* Question 3(c) *

Id Subject_code

8716 IS301
8716 IS303
8808 IS204
8810 IS204

** Lucas Wyte **

```
SELECT Name
FROM Students
WHERE Class ^= 'A'
```

fit queries that overlap
onto separate pages.

3(d)

continues next page ↓

ORDER BY Name

SELECT Name, Year
FROM Students
WHERE Year = 1
ORDER BY Year, Name

SELECT Id
FROM Results
WHERE Rating <= 5
AND Subject_code = 'IS102'

* Question 3(f) *

Id

8907
8808
8909
8913
8918

** Lucas Wyte **

SELECT Name
FROM Students
WHERE Year = 1
AND Class = 'A'

* Question 3(g) *

Name

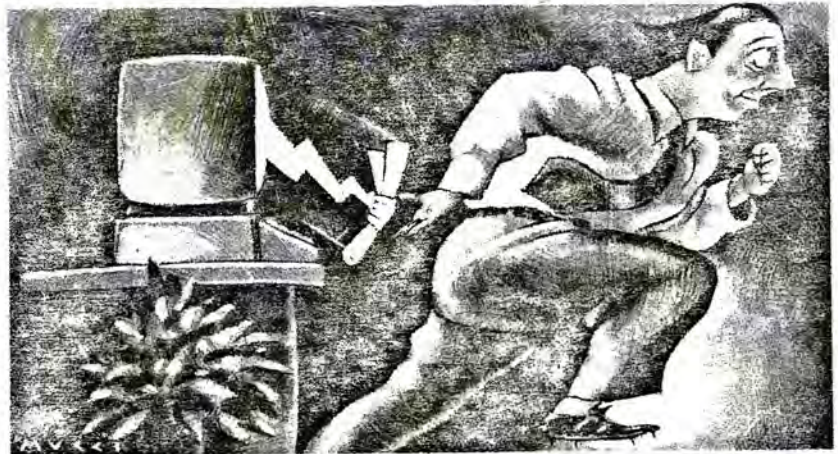
MAY S

** Lucas Wyte **

SELECT Name
FROM Students
WHERE Year = 2
ORDER BY Name

SELECT Id
FROM Results
WHERE Subject_Code in ('IS102', 'IS112', 'IS212', 'IS204')
ORDER BY Id

SELECT Id, Rating
FROM Results
WHERE Rating = 3
OR Rating = 7
AND Subject_Code = 'IS204'
ORDER BY Rating, Id



=====

Id	Rating
8705	3
8814	3
8816	3
8913	3
8918	3
8808	7
8810	7

** Lucas Wyte **

=====

```
SELECT Subject_Code
FROM Results
WHERE Rating is null
```

- Question 5(a) *

=====

Subject_code
IS102
IS204

** Lucas Wyte **

=====

```
SELECT Subject
FROM Subjects
WHERE Subject like 'SQL_'
```

* Question 5(b) *

=====

Subject
SQL1
SQL2

** Lucas Wyte **

=====

```
SELECT Subject_Code
FROM Subjects
WHERE Subject_Code like 'IS1%'
```

* Question 5(c) *

=====

Subject_code
IS102
IS112

** Lucas Wyte **

=====

```
SELECT COUNT(Subject)
FROM Subjects
```

* Question 6(a) *

=====

```
Count(subject)
-----
```

6

** Lucas Wyte **

=====

*you could use a format statement
to rename this column.*

```
SELECT Count(Id)
FROM Results
WHERE Subject_Code = 'IS102'
```

* Question 6(b) *

=====

```
Count(id)
-----
```

7

** Lucas Wyte **

=====

```
SELECT Count(Id)
FROM Results
WHERE Subject_Code = 'IS102'
AND Rating <= 5
```

* Question 6(c) *

=====

```
Count(id)
-----
```

5

** Lucas Wyte **

=====

```
SELECT MAX(Rating)
FROM Results
WHERE Subject_Code = 'IS212'
```

* Question 6(d) *

=====

```
Max(rating)
-----
```

6

** Lucas Wyte **

=====

*RATING of 4 has been taken to be 5
since a Rating of 4 is an average
of 4 & 5. Hence the Rating of 4 is taken to be 5.*

*Rating of 4 has been taken to be 5
since a Rating of 4 is an average
of 4 & 5. Hence the Rating of 4 is taken to be 5.*

```
SELECT AVG(Rating)
FROM Results
WHERE Subject_Code = 'IS301'
```

```
* Question 6(e) *
=====
```

```
Avg(rating)
-----
5.17
```

```
** Lucas Wyte **
=====
```

```
SELECT AVG(Rating)
FROM Results
WHERE Id = '8802'
```

```
Question 6(f) *
=====
```

```
Avg(rating)
-----
5
```

```
** Lucas Wyte **
=====
```

```
SELECT Class, COUNT(Id)
FROM Students
GROUP BY Class
```

```
* Question 7(a) *
=====
```

```
Class  Count(id)
-----
A      6
B      6
C      8
```

```
** Lucas Wyte **
=====
```

```
SELECT Subject_Code, MIN(Rating)
FROM Results
GROUP BY Subject_Code
```

```
* Question 7(b) *
=====
```

```
Subject_code  Min(rating)
-----
IS102         3
IS112         4
IS204         3
IS212         3
IS301         4
IS303         5
```

MAX

Rating of 3

as 3 is the lowest rating

Rating of 4

X

**** Lucas Wyte ****

=====

```
SELECT Year, COUNT(Id)
FROM Students
GROUP BY Year
```

*** Question 7(c) ***

=====

Year	Count(id)
1	6
2	6
3	8

**** Lucas Wyte ****

=====

```
SELECT Year, COUNT(Id)
FROM Students
WHERE Class = 'A'
GROUP BY Year
```

*** Question 7(d) ***

=====

Year	Count(id)
1	1
2	1
3	4

**** Lucas Wyte ****

=====

DO-IT-YOURSELF Virtual Reality

Is Actual Reality getting you down? Follow Auntie Technology's easy plan to D-I-Y Virtual Reality in the privacy of your own home!



Coming Soon!
D-I-Y Sensory Deprivation Tanks. All you need is an old fridge, 10 kilos of salt & some warm tap water.

- 1 All-occasions helmet to ensure safety of subject in case of writhing.
- 2 Last summer's goggles you found in the changing room of the pool.
- 3 Two kiddie's kalei doscopas attached firmly to goggles.
- 4 Light source for kalei doscopes.

- 5 Incense of your choice.
- 6 Chuppa-chup (or equivalent lolly-pop affair).

- 7 Walk-person (earphones beneath helmet).
Select music of your choice but recommend: 2001 Soundtrack, Koyaanisqatsi, Nirvana or Sperm Whale Mating Calls.

- 8 Sheepskin glove.
- 9 That old beanbag that has been in the garage for 5 years since the cat sprayed on it.

- 10 Nibbly Fishes.
- 11 A happy dogtail (aids air circulation).
- 12 Excited puppy wee (by-product of filling Recommendations include: Lime/Raspberry Jelly, Custard, Yoghurt, Dried Biscuits. Note: Bare feet necessary for maximum effect).

- 14 Kneading Fuss.

```
SELECT Subject, AVG(Rating)
FROM Subjects a, Results b
WHERE a.Subject_Code = b.Subject_Code
AND Subject_Code like 'IS2%'
GROUP BY Subject
```

* Question 7(e) *

Subject	Avg(rating)
INFORMATION SYSTEMS 1	5.33
SQL2	4.56

** Lucas Wyte **

not required to list
subject, only code
to join not really
required. but OK.

```
SELECT Name
FROM Students a, Results b
WHERE a.Id = b.Id
AND Rating = 7
AND Subject_Code = 'IS204'
ORDER BY Name
```

* Question 8(a) *

Name

BOLTON C
NASH F

** Lucas Wyte **

SELECT MAX (class)

```
SELECT Class, COUNT(Class)
FROM Students
GROUP BY Class
```

* Question 8(b) *

Class	Count(class)
A	6
B	6
C	8

** Lucas Wyte **



"We found him on the Internet. Can we keep him mum, can we?"

```
SELECT COUNT(RATING)
FROM RESULTS
WHERE RATING >=4
```

SELECT Name

should go
on next page

which class has the greater
number of students

Ans → C

```

SELECT Name
FROM Results a, Students b
WHERE a.Id = b.Id
AND Rating =
(SELECT MIN(Rating)
FROM Results
WHERE Subject_Code = 'IS102')
ORDER BY Name

```

* Question 8(c) *

=====

Name

```

-----
GUINEA A
MAY S
NG A
O'BRIEN K
RUTHERFORD S

```

** Lucas Wyte **

=====

```

SELECT Name
FROM Students a, Subjects b, Results c
WHERE a.id = c.Id
AND b.Subject_Code = c.Subject_Code
AND Subject = 'SQL1'
ORDER BY Name

```

* Question 8(d) *

=====

Name

```

-----
BREWER T
COLTER F
CUFF M
MAY S
O'BRIEN K

```

** Lucas Wyte **

=====

```

SELECT Id
FROM Results
WHERE Subject_Code = 'IS102'
AND Rating =
(SELECT MIN(Rating)
FROM Results
WHERE Subject_Code = 'IS102')
ORDER BY Id

```

* Question 8(e) *

=====

Id

```

----
8913
8918

```

** Lucas Wyte **

=====