

Exercise 1

Part 1

i) SELECT *

```
FROM sales-representatives  
NATURAL JOIN addresses;
```

ii) SELECT

```
s.id,  
s.first-name,  
s.last-name,  
a.address-line-1,  
a.address-line-2,  
a.city,  
s.email,  
s.phone-number,
```

```
FROM sales-representatives s  
NATURAL JOIN addresses a;
```

Part 2

i) SELECT

```
s.id,  
s.first-name,  
s.last-name,  
a.address-line-1,  
a.address-line-2,  
a.city,  
s.email,  
s.phone-number
```

```
FROM sales-representatives s  
JOIN addresses a USING (address-id);
```

Part 3

SELECT

```
C.customer-number,  
C.first-name AS customer-first-name  
C.last-name AS customer-last-name,  
C.phone-number AS customer-phone-number,  
C.email AS customer-email,  
S.id AS sales-representative-id,  
S.first-name AS sales-representative-first-name,  
S.last-name AS sales-representative-last-name,  
S.email AS sales-representative-email
```

FROM customer C

JOIN sales-representatives S ON C.sales-rep-id = S.id;

Part 4

SELECT

```
C.customer-number,  
C.first-name AS customer-first-name,  
C.last-name AS customer-last-name,  
C.phone-number AS customer-phone-number,  
C.email AS customer-email,  
S.id AS sales-representative-id,  
S.first-name AS sales-representative-first-name,  
S.last-name AS sales-representative-last-name,  
S.email AS sales-representative-email,  
T.team-name
```

FROM customer C

JOIN sales-representatives S ON C.sales-rep-id = S.id

JOIN teams T ON C.team-id = T.team-id;

Part 5

```
SELECT
c.customer_number,
c.first_name AS customer_first_name,
c.last_name AS customer_last_name,
c.phone_number AS customer_phone_number,
c.email AS customer_email,
s.id AS sales_representative_id,
s.first_name AS sales_representative_first_name,
s.last_name AS sales_representative_last_name,
s.email AS sales_representative_email,
t.team_name
FROM customer c
JOIN sales_representatives s ON c.sales-rep-id = s.id
JOIN teams t ON c.team_id = t.team_id
WHERE c.customer_number = 'C00001';
```

Part 6

```
SELECT
i.item_name,
ph.price
FROM items i
JOIN price_history ph ON i.item_id = ph.item_id
WHERE i.item_number = 'IM0101045'
AND DATE(ph.date_changed) = '2016-12-12';
```

Exercise 2

Part 1

SELECT

```
Rep.first_name AS Rep_FirstName,  
Rep.last_name AS Rep_LastName,  
Supervisor.first_name AS Supervisor_FirstName,  
Supervisor.last_name AS Supervisor_LastName,  
FROM sales-representatives Rep  
LEFT JOIN sales-representatives Supervisor ON Rep.  
Supervisor_id = Supervisor.Id;
```

Part 2

SELECT

```
t.team_id,  
t.team-name,  
c.customer_id,  
c.first_name AS Customer_FirstName,  
c.last_name AS Customer_LastName,  
c.email AS Customer_email  
FROM teams t  
LEFT JOIN customers c ON t.team_id = c.team_id;
```

Part 3

SELECT

C. customer_id,
C. first_name AS customer-first-name,
C. last_name AS customer-last-name,
S. id AS calls-representative_id,
S. first_name AS sales-representative-first-name,
S. last_name AS sales-representative-last-name,
FROM customer C
CROSS JOIN sales-representatives S ;