

# Option 1

## Library Detail

```
-- To shorten the context, use * to select all columns
SELECT * from library t where library_id = 1;
```

## Filter by Facility List

Accessible Toilets
Accessible Toilets
Application Forms
Audio Books
Books In Other Languages
C-Pen
Car Parking
CDs
Community Garden
Computers

```
SELECT t.facility_id, t.facility_name
FROM facility t
ORDER BY facility_name
```

facility_id	facility_name	
1	F1	
10	F10	
2	F2	
3	F3	
4	F4	
5	F5	
6	F6	
7	F7	
8	F8	
9	F9	

## Library List

<b>Ballyfermot Library</b> Ballyfermot Road, Dublin 10 Open Today 10:00 – 20:00	<b>Ballymun Library</b> Ballymun Road, Dublin 11 Open Today 10:00 – 20:00	<b>Cabra library</b> Navan Road, Dublin 7 Open Today 10:00 – 20:00
<b>Central Library</b> Ilac Centre, Dublin 1 Open Today 10:00 – 20:00	<b>Charleville Mall Library</b> North Strand, Dublin 1 Open Today 10:00 – 17:00	<b>Coolock Library</b> Barryscourt Road, Dublin 17 Open Today 10:00 – 20:00

```
-- Library list is filtered by Facility, for example, facility_id = 1
-- In this Option, we can not use SQL to do it
-- It should be done by the backend, check every Library's facility_ids is
  included 1 or not
-- As We mentioned in deliverable C part, it is not a good option, just to
  show the idea, which some people may use it
```

## Nearby libraries, facilities, and services on the detail page

Libraries Nearby	
Leabharlann Inchicore Richmond Barracks, St. Michaels Estate, Dublin 8	
Inchicore Library Richmond Barracks, St. Michaels Estate, Dublin 8	
Walkinstown Library Percy French Road, Dublin 12	
Dolphin's Barn Library Parnell Road, Dublin 12	
Cabra Library Navan Road, Dublin 7	
Kevin Street Library 18 Lower Kevin Street, Dublin 8	
<b>Services</b>	
<ul style="list-style-type: none"><li>● Activities For Adults</li><li>● Block Loans by Arrangement</li><li>● Class Visits by Appointment</li><li>● Lectures</li><li>● Workshops</li><li>● Activities For Children</li><li>● Book Club(s)</li><li>● Exhibitions</li><li>● Library Tours by Appointment</li></ul>	
<b>Facilities</b>	
<ul style="list-style-type: none"><li>● Accessible Toilets</li><li>● Computers</li><li>● Application Forms</li><li>● Computers For Under 12s</li></ul>	

```
-- They have the same logic. Take Libraries Nearby, for example
-- 1. Get the nearby library ids
SELECT library_nearby_ids from library t where library_id = 1;
-- 2. Get the library names according to the result of step 1
SELECT t.library_name FROM library t
where t.library_id in (2,3,4,5,6,7);
```

Opening Hours

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Opening Hours

Today

Thursday

10:00 – 20:00

Monday

Closed

Tuesday

10:00 – 17:00

Wednesday

10:00 – 20:00

Thursday

10:00 – 20:00

Friday

10:00 – 17:00

—

Saturday

10:00 – 17:00

Sunday

Closed

```
-- For today's open time
SELECT open_time from open_hour
WHERE library_id = 1 and day=DAYOFWEEK(NOW())-1;

-- For list
SELECT open_time from open_hour
WHERE library_id = 1;
```

		open_time	
		10:00 – 20:00	
		10:00 – 20:00	
		10:00 – 20:00	
		10:00 – 20:00	
		10:00 – 20:00	
		10:00 – 20:00	
		Closed	

open_time	
10:00 – 20:00	

## Option 2

Just show different implementations of SQLs from Option 1. Others are the same as Option 1, like Library Detail, etc.

### Library List

#### Ballyfermot Library

Ballyfermot Road, Dublin 10

Open Today 10:00 – 20:00

#### Ballymun Library

Ballymun Road, Dublin 11

Open Today 10:00 – 20:00

#### Cabra library

Navan Road, Dublin 7

Open Today 10:00 – 20:00

```
-- Library list is filtered by Facility. For example, facility_id = 2
select c.library_id, c.library_name, c.short_address, d.open_time from
  (select a.library_id,a.library_name,a.short_address from library a
  LEFT JOIN library_facility b
  ON a.library_id = b.library_id
  WHERE b.facility_id = 2) c LEFT JOIN open_hour d
ON c.library_id = d.library_id
where day = DAYOFWEEK(NOW())-1;
```

	library_id	library_name	short_address	open_time
	1	library1	short_address_1	10:00 – 20:00
	2	library2	short_address_2	10:00 – 20:00

### Nearby libraries, facilities, and services in the detail page

```
-- facilities, services, nearby libraries
SELECT t.facility_name from facility t
WHERE facility_id IN
  (SELECT facility_id from library a
  left JOIN library_facility b
  on a.library_id = b.library_id
  where a.library_id = 1);
```

### Upcoming events

```
SELECT * from Event where library_id = 1
and event_time > NOW()
order by event_time DESC
LIMIT 3;
```

## Option 3

Just show different implementations of SQLs from Option 1. Others are the same as Option 2.

### Library list

```
-- Library list is filtered by Facility. For example, facility_id = 1
SELECT c.library_id, c.library_name, c.short_address, b.open_time FROM
  (select library_id from bridge
   WHERE type = 1 and related_id = 1) a
LEFT JOIN open_hour b
  ON a.library_id = b.library_id and b.day=DAYOFWEEK(NOW())-1
LEFT JOIN library c
on a.library_id = c.library_id
```

### Nearby libraries, facilities, and services in the detail page

```
-- nearby libraries
SELECT related_id, related_name from bridge
where library_id = 1 and type = 0

-- facilities
SELECT related_id, related_name from bridge
where library_id = 1 and type = 1

-- services
SELECT related_id, related_name from bridge
where library_id = 1 and type = 2
```