# SQL-TASK 3: LIBRARY DATABASE

## 1. DATABASE (Base)

```
1  INSERT customer_report (book_id,title,author,borrowed_date)VALUES
2  (1,'The Great Catsby','Mr Meowington II','2024-01-04'),(2,'The Great Catsby','Mr Meowington II','2024-01-05'),
3  (3,'Metamorphosis','Prancisze Kafka','2024-01-06'),(4,'The History of the Dwarfs','Shahim Danish A/L Azizul Sabri','2024-01-07'),
4  (5,'Biology Form 4','Arif Alodeng','2024-01-08'),(6,'Chef Cuisine','Amna Ibrahim','2024-02-22')
5
```

Entering this code into the Query will result with:

| # | book_id 🔑 | title | author | borrowed_date |
|---|---|---|---|---|
| 1 | 1 | Bible Volume 1 Edition 1 | Jesus | 2024-01-04 |
| 2 | 2 | The Great Catsby | Mr Meowington II | 2024-01-05 |
| 3 | 3 | Metamorphosis | Prancisze Kafka | 2024-01-06 |
| 4 | 4 | The History of the Dwarfs | Shahim Danish A/L Azizul Sabri | 2024-01-07 |
| 5 | 5 | Biology Form 4 | Arif Alodeng | 2024-01-08 |
| 6 | 6 | Chef Cuisine | Amna Ibrahim | 2024-02-22 |

Table of Books with book_id, title, author, borrowed_date

## 2. Find from Specific Author

Example: Amna Ibrahim can be found from entering this code into Query:

```
1  SELECT *
2  FROM customer_report
3  WHERE author = 'Amna Ibrahim';
4
```

Resulting in:

```
1  SELECT *
2  FROM customer_report
3  WHERE author = 'Amna Ibrahim';
4
```

customer_report (1r × 4c)

| # | book_id 🔑 | title | author | borrowed_date |
|---|---|---|---|---|
| 1 | 6 | Chef Cuisine | Amna Ibrahim | 2024-02-22 |

## 2. Find from Specific Date

Example: Book borrowed on 2024-01-05 can be found from entering this code into Query:

```
1   SELECT *
2   FROM customer_report
3   WHERE borrowed_date = '2024-01-05';
4
```

Resulting in:

```
1   SELECT *
2   FROM customer_report
3   WHERE borrowed_date = '2024-01-05';
4
```

customer_report (1r × 4c)

| # | book_id | title | author | borrowed_date |
|---|---------|-------|--------|---------------|
| 1 | 2 | The Great Catsby | Mr Meowington II | 2024-01-05 |

## 2. Find after Specific Date

Example: Book borrowed after 2024-01-06 can be found from entering this code into Query:

```
1   SELECT *
2   FROM customer_report
3   WHERE borrowed_date > '2024-01-06';
4
```

Resulting in:

```
1   SELECT *
2   FROM customer_report
3   WHERE borrowed_date > '2024-01-06';
4
```

customer_report (3r × 4c)

| # | book_id | title | author | borrowed_date |
|---|---------|-------|--------|---------------|
| 1 | 4 | The History of the Dwarfs | Shahim Danish A/L Azizul Sabri | 2024-01-07 |
| 2 | 5 | Biology Form 4 | Arif Alodeng | 2024-01-08 |
| 3 | 6 | Chef Cuisine | Amna Ibrahim | 2024-02-22 |

Seeing all these books, how can we find the total books, or all of the books?

3. Find all books
Entering this code into Query:

```
1  SELECT *
2  FROM customer_report |
3
```

Resulting in:

```
1  SELECT *
2  FROM customer_report
3
```

customer_report (6r × 4c)

| # | book_id 🔑 | title | author | borrowed_date |
|---|---|---|---|---|
| 1 | 1 | Bible Volume 1 Edition 1 | Jesus | 2024-01-04 |
| 2 | 2 | The Great Catsby | Mr Meowington II | 2024-01-05 |
| 3 | 3 | Metamorphosis | Prancisze Kafka | 2024-01-06 |
| 4 | 4 | The History of the Dwarfs | Shahim Danish A/L Azizul Sabri | 2024-01-07 |
| 5 | 5 | Biology Form 4 | Arif Alodeng | 2024-01-08 |
| 6 | 6 | Chef Cuisine | Amna Ibrahim | 2024-02-22 |

4. Update borrowed date
Entering this code into Query:

```
1  UPDATE customer_report
2  SET borrowed_date = '2024-01-23'
3  WHERE book_id = 2;
```

Resulting in:

| # | book... 🔑 ▲1 | title | author | borrowed_date |
|---|---|---|---|---|
| 1 | 1 | Bible Volume 1 Edition 1 | Jesus | 2024-01-04 |
| 2 | 2 | The Great Catsby | Mr Meowington II | 2024-01-23 |
| 3 | 3 | Metamorphosis | Prancisze Kafka | 2024-01-06 |
| 4 | 4 | The History of the Dwarfs | Shahim Danish A/L Azizul Sabri | 2024-01-07 |
| 5 | 5 | Biology Form 4 | Arif Alodeng | 2024-01-08 |
| 6 | 6 | Chef Cuisine | Amna Ibrahim | 2024-02-22 |

The Great Catsby from 2024-01-05 → 2024-01-23

## 5. Deleting books

Entering this code into Query:

```
1  DELETE FROM customer_report
2  WHERE book_id = 5;
```

Resulting in:

| # | book... 🔑 ▲1 | title | author | borrowed_date |
|---|---|---|---|---|
| 1 | 1 | Bible Volume 1 Edition 1 | Jesus | 2024-01-04 |
| 2 | 2 | The Great Catsby | Mr Meowington II | 2024-01-23 |
| 3 | 3 | Metamorphosis | Prancisze Kafka | 2024-01-06 |
| 4 | 4 | The History of the Dwarfs | Shahim Danish A/L Azizul Sabri | 2024-01-07 |
| 5 | 6 | Chef Cuisine | Amna Ibrahim | 2024-02-22 |

(Biology Form 4, Arif Alodeng removed)

## 6. Adding back deleted books

Entering this code into Query:

```
1  INSERT INTO customer_report (book_id, title, author, borrowed_date)
2  VALUES (5, 'biology Form 4', 'Arif Alodeng', '2024-01-08');
3
```

Resulting in:

| # | book... 🔑 ▲1 | title | author | borrowed_date |
|---|---|---|---|---|
| 1 | 1 | Bible Volume 1 Edition 1 | Jesus | 2024-01-04 |
| 2 | 2 | The Great Catsby | Mr Meowington II | 2024-01-23 |
| 3 | 3 | Metamorphosis | Prancisze Kafka | 2024-01-06 |
| 4 | 4 | The History of the Dwarfs | Shahim Danish A/L Azizul Sabri | 2024-01-07 |
| 5 | 5 | biology Form 4 | Arif Alodeng | 2024-01-08 |
| 6 | 6 | Chef Cuisine | Amna Ibrahim | 2024-02-22 |

(Biology Form 4, Arif Alodeng added back)