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a – b. The database was created based off the logical model that was developed in part 2. It was created using python version 3.11 and SQLite. The following images show the structure of the database with some sample data.

Client Table

	clientNo	fName	lName	address	tel
0	1001	John	Doe	123 Ludlam Rd	555-1234
1	2002	Jane	Smith	456 Killian Dr	555-5678
2	3003	Oblaw	Boblob	789 Flagami Blvd	555-3333
3	4004	Maya	Mi	101 Graham Dairy Rd	555-4444
4	5005	Hiaya	Leah	222 Opa Locka Blvd	555-5555

Service Table

	serviceNo	clientNo	startDate	startTime	duration	comments
0	1	1001	2023-01-01	10:00	60	Regular cleaning
1	2	2002	2023-02-01	14:00	120	Deep cleaning
2	3	3003	2023-03-01	09:00	90	Regular cleaning
3	4	4004	2023-03-15	15:00	120	Deep cleaning
4	5	4004	2023-04-01	10:30	60	Regular cleaning

Employee Table

	staffNo	fName	lName	address	salary	tel
0	101	Alicia	Rodriguez	789 Miller Dr	50000	555-1111
1	102	Roberto	Perez	101 Bird Rd	60000	555-2222
2	103	Emily	Correa	456 Sunset Dr	55000	555-6666
3	104	James	Izquierdo	789 Miller Dr	60000	555-7777
4	105	Valerie	Gallego	101 Bird Rd	52000	555-8888

Equipment Table

	equipNo	description	usage	cost
0	10101	Vacuum Cleaner	Carpet cleaning	200
1	20202	Floor Scrubber	Floor cleaning	50
2	30303	Shopvac	Floor cleaning	30
3	40404	Yellow Mop Bucket	Mop cleaning	25
4	50505	Scrapper	General cleaning	20

Assigned Table

	serviceNo	staffNo
0	1	101
1	2	102
2	3	103
3	4	104
4	5	104

EquipmentRequirements Table

	serviceNo	equipNo
0	1	10101
1	2	20202
2	3	30303
3	4	40404
4	5	50505

c. We also developed 5 SQL queries as an example of the type of questions that could be answered (note that this is not an exhaustive list). The queries are listed below along with examples of their output:

Query 1: List all clients and the details of the services they have requested.

	clientNo	fName	lName	serviceNo	startDate	startTime	duration	comments
0	1001	John	Doe	1	2023-01-01	10:00	60	Regular cleaning
1	2002	Jane	Smith	2	2023-02-01	14:00	120	Deep cleaning
2	3003	Oblaw	Boblob	3	2023-03-01	09:00	90	Regular cleaning
3	4004	Maya	Mi	4	2023-03-15	15:00	120	Deep cleaning
4	4004	Maya	Mi	5	2023-04-01	10:30	60	Regular cleaning

Query 2: Find the total cost of special equipment used in each service.

	serviceNo	totalEquipmentCost
0	1	200
1	2	50
2	3	30
3	4	25
4	5	20

Query 3: Identify employees who are not currently assigned to any service.

	staffNo	fName	lName
0	105	Valerie	Gallego

Query 4: List clients who have requested cleaning services more than once.

	clientNo	fName	lName	numServiceRequests
0	4004	Maya	Mi	2

Query 5: Find and list employees that make below the average salary.

	fName	lName	salary
0	Alicia	Rodriguez	50000
1	Emily	Correa	55000
2	Valerie	Gallego	52000