

# BEAUTY HUB

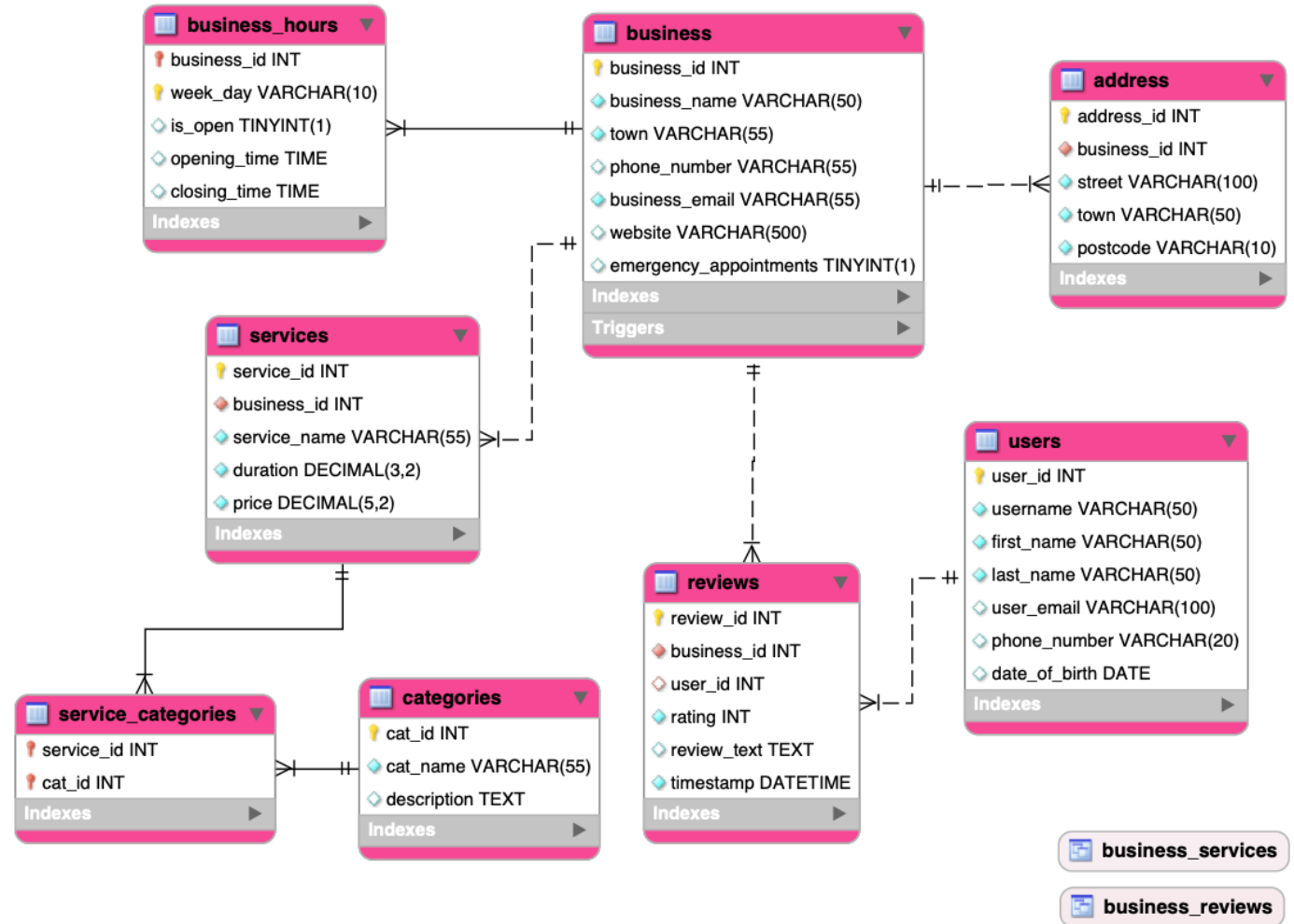
**SQL Project**

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# Database

## Project overview

- **Simplifies** the search for beauty services, catering to individuals seeking convenience and reliability.
- **Designed** for those scouring Instagram and other social platforms for service providers for special occasions, like hair and makeup for birthdays.
- **Features** essential tables like businesses, services, addresses, hours, users, and reviews, ensuring comprehensive data management.
- **Aims** to streamline the process of booking multiple services, by offering centralised access to key information for informed decision-making.



# Tables

Address

Business

Business  
hours

Category

Reviews

Services

Service  
categorie

Users

address_id	business_id	street	town	postcode
1	1	123 High Street	Thamesmead	SE28 8PU
2	2	456 Camden Road	Camden	NW1 9AA
3	3	789 Hackney Road	Hackney	E8 4AA
4	4	101 Bexleyheath Broadway	Bexleyheath	DA6 7ES
5	5	234 Romford Lane	Romford	RM1 3PT
6	6	567 Eltham High Street	Eltham	SE9 1AA
7	7	890 Stratford Road	Stratford	E15 1BB
8	8	123 Wood Green Avenue	Wood Green	N22 6DC
9	9	456 Hackney Central Square	Hackney	E9 5BB
10	10	789 Thamesmead Road	Thamesmead	SE2 0AB

# Tables

Address

Business

Business  
hours

Category

Reviews

Services

Service  
categorie

Users

business_id	business_name	town	phone_number	business_email	website	emergency_appointme...
1	hairbyb	thamesmead	02012345678	hbb@mail.com	www.hairbyb.com	1
2	nailedbyn	camden	02098765432	nbn@mail.com	www.nailedbyn.com	0
3	kaysstudio	hackney	02055555555	kaysstudio@mail.com	www.kaysstudio.com	1
4	jcutz	bexleyheath	07433333333	jc@mail.com	www.jcutz.com	1
5	beckybraidedit	romford	07924444444	bbi@mail.com	www.beckybraidedit.com	1
6	thenailbar	eltham	02033335666	tnb@mail.com	www.thenailbar.com	0
7	lashedgalour	stratford	02077777777	lashedgalour@mail.com	www.lashedgalour.com	1
8	gracesglamour	wood green	07434343434	graceg@mail.com	www.gracesglamour.com	1
9	fghair	hackney	02077773776	fghair@mail.com	www.fghair.com	1
10	facesbydan	thamesmead	02055554444	facesbydan@mail.com	www.facesbydan.com	1

# Tables

Address

Business

Business  
hours

Category

Reviews

Services

Service  
categorie

Users

business_id	week_day	is_open	opening_time	closing_time
1	Friday	1	09:00:00	18:00:00
1	Monday	1	09:00:00	18:00:00
1	Saturday	1	10:00:00	16:00:00
1	Sunday	0	NULL	NULL
1	Thursday	1	09:00:00	18:00:00
1	Tuesday	1	09:00:00	18:00:00
1	Wednesday	1	09:00:00	18:00:00
2	Friday	1	09:00:00	17:00:00
2	Monday	0	NULL	NULL
2	Saturday	1	10:00:00	16:00:00
2	Sunday	0	NULL	NULL
2	Thursday	1	09:00:00	17:00:00
2	Tuesday	1	09:00:00	17:00:00
2	Wednesday	0	NULL	NULL

# Tables

Address

Business

Business  
hours

Category

Reviews

Services

Service  
categorie

Users

cat_id	cat_name	description
1	Hair	NULL
2	Nails	NULL
3	Makeup	NULL
4	Lashes	NULL
5	Barber	NULL

# Tables

Address

Business

Business  
hours

Category

Reviews

Services

Service  
categorie

Users

review_id	business_id	user_id	rating	review_text	timestamp
1	9	1	5	Great service and friendly stylist!	2024-04-06 10:00:56
2	5	2	4	Love my braids, but a bit pricey.	2024-04-10 11:30:03
3	2	3	3	Average experience, could be better.	2024-04-10 14:45:21
4	10	14	5	Absolutely loved my makeup!	2024-04-11 09:15:30
5	4	4	4	Great barber, but sometimes crowded.	2024-04-16 12:00:17
6	1	6	5	Obsessed with my hair. Definitely coming back!	2024-04-16 15:30:09
7	2	7	3	Decent French tip, but could have been neater,...	2024-04-17 10:45:46

# Tables

Address

Business

Business  
hours

Category

Reviews

Services

Service  
categorie

Users

service_id	business_id	service_name	duration	price
1	4	trim	0.50	25.00
2	1	wig install	2.00	80.00
3	3	wig install	2.00	100.00
4	5	knotless braids	3.50	90.00
5	5	feed in braids	1.50	45.00
6	9	sew in	2.25	75.00
7	2	full set simple	1.50	40.00
8	6	full set complex	2.00	60.00
9	2	pedicure	0.75	30.00
10	10	natural glam	1.25	55.00
11	8	full glam	2.00	75.00
12	7	hybrid set	2.00	40.00
13	7	brow lamination	1.00	55.00



# Tables

Address

Business

Business  
hours

Category

Reviews

Services

Service  
categories

Users

service\_id | cat\_id

NULL

NULL

# Tables

Address

Business

Business  
hours

Category

Reviews

Services

Service  
categorie

Users

user_id	username	first_name	last_name	user_email	phone_number	date_of_bir...
1	john101	John	a	john@mail.com	3958	NULL
2	ruth_e	Ruth	b	ruth@mail.com	NULL	NULL
3	delilah	Delilah	c	NULL	NULL	NULL
4	solomon	Solomon	d	NULL	NULL	1972-06-01
5	sarahhhh	Sarah	e	sarah@mail.com	NULL	NULL
6	ab1ga1l	Abigail	f	abi@mail.com	NULL	NULL
7	p_drizzle	Precious	g	precious@mail.com	NULL	NULL
8	tttessy	Theresa	h	tess@mail.com	7890	2003-10-04
9	h3nree	Henrie	i	henr.ie1@mail.com	5542	NULL
10	eve	Eve	j	eve@mail.com	NULL	NULL
11	han_nah	Hannah	k	hannah@mail.com	NULL	NULL
12	l.eah	Leah	l	leah@mail.com	NULL	1999-08-15
13	keziah	Keziah	m	kzh@mail.com	73339	NULL
14	mary_n	Mary	n	mary@mail.com	1112	2000-10-10

# Views

Created a view called **business\_services** that combines information about businesses and the services they offer. I also used a CASE statement to convert boolean values into 'Yes' or 'No' for better readability.

*Input:*

```
CREATE VIEW business_services AS
SELECT b.business_name, b.town, b.phone_number,
       s.service_name, s.price,
       CASE
         WHEN b.emergency_appointments = TRUE THEN 'Yes'
         ELSE 'No'
       END AS emergency_appts_accepted
FROM business b
JOIN services s ON b.business_id = s.business_id;
```

*Output:*

	business_name	town	phone_number	service_name	price	emergency_appts_accepted
▶	hairbyb	thamesmead	02012345678	wig install	80.00	Yes
	nailedbyn	camden	02098765432	full set simple	40.00	No
	nailedbyn	camden	02098765432	pedicure	30.00	No
	kaysstudio	hackney	02055555555	wig install	100.00	Yes
	jcutz	bexleyheath	07433333333	trim	25.00	Yes
	beckybraidedit	romford	07924444444	knotless braids	90.00	Yes
	beckybraidedit	romford	07924444444	feed in braids	45.00	Yes
	thenailbar	eltham	020333335666	full set complex	60.00	No
	lashedgalour	stratford	02077777777	hybrid set	40.00	Yes
	lashedgalour	stratford	02077777777	brow lamination	55.00	Yes
	gracesglamour	wood green	07434343434	full glam	75.00	Yes
	fghair	hackney	02077773776	sew in	75.00	Yes
	facesbydan	thamesmead	02055554444	natural glam	55.00	Yes

# Views

## Using 3 base tables

Created a view called **business\_reviews** that combines information about businesses and the ratings they have received on by users in the database on services they have received. they offer. **Tables used for this view are: Business, Review and Users..**

*Input:*

```
CREATE VIEW business_reviews AS
SELECT
    b.business_name,
    b.town,
    u.username,
    r.rating,
    r.review_text,
    r.timestamp
FROM
    business b
JOIN
    reviews r ON b.business_id = r.business_id
JOIN
    users u ON r.user_id = u.user_id
ORDER BY
    b.business_name, r.timestamp DESC;
```

*Output:*

	business_name	town	username	rating	review_text	timestamp
►	beckybraidedit	romford	ruth_e	4	Love my braids, but a bit pricey.	2024-04-10 11:30:03
	facesbydan	thamesmead	mary_n	5	Absolutely loved my makeup!	2024-04-11 09:15:30
	fghair	hackney	john101	5	Great service and friendly stylist!	2024-04-06 10:00:56
	hairbyb	thamesmead	ab1ga1l	5	Obsessed with my hair. Definitely coming back!	2024-04-16 15:30:09
	jcutz	bexleyheath	solomon	4	Great barber, but sometimes crowded.	2024-04-16 12:00:17
	nailedbyn	camden	p_drizzle	3	Decent French tip, but could have been neater,...	2024-04-17 10:45:46
	nailedbyn	camden	delilah	3	Average experience, could be better.	2024-04-10 14:45:21

# Stored function

The **DurationToString** function converts duration values from hours to a human-readable format, making it easier to understand service durations.

*Input:*

```
DELIMITER //
CREATE FUNCTION DurationToString(duration DECIMAL(5, 2))
RETURNS VARCHAR(100)
DETERMINISTIC
BEGIN
    DECLARE duration_string VARCHAR(100);

    SET duration_string = CONCAT(
        FLOOR(duration), ' hour',
        IF(FLOOR(duration) > 1, 's ', ' '),
        ROUND((duration - FLOOR(duration)) * 60), ' minutes'
    );

    RETURN duration_string;
END//
DELIMITER ;
```

# Function applied to query:

```
SELECT
    service_id,
    service_name,
    DurationToString(duration) AS duration1,
    price
FROM
    services;
```

*Output:*

	service_id	service_name	duration1	price
▶	1	trim	0 hour 30 minutes	25.00
▢	2	wig install	2 hours 0 minutes	80.00
▢	3	wig install	2 hours 0 minutes	100.00
▢	4	knotless braids	3 hours 30 minutes	90.00
▢	5	feed in braids	1 hour 30 minutes	45.00
▢	6	sew in	2 hours 15 minutes	75.00
▢	7	full set simple	1 hour 30 minutes	40.00
▢	8	full set complex	2 hours 0 minutes	60.00
▢	9	pedicure	0 hour 45 minutes	30.00
▢	10	natural glam	1 hour 15 minutes	55.00
▢	11	full glam	2 hours 0 minutes	75.00
▢	12	hybrid set	2 hours 0 minutes	40.00
▢	13	brow lamination	1 hour 0 minutes	55.00

# Subquery

Used a subquery inside the **'WHERE'** clause of the main query to filter businesses based on the services they offer.

*Input:*

```
SELECT
    b.business_name,
    b.town,
    s.service_name,
    s.price
FROM
    business b
JOIN
    services s ON b.business_id = s.business_id
WHERE
    b.business_id IN (
        SELECT DISTINCT business_id
        FROM services
        WHERE service_name LIKE '%braid%'
    );
```

*Output:*

	business_name	town	service_name	price
▶	beckybraidedit	romford	knotless braids	90.00
	beckybraidedit	romford	feed in braids	45.00

# Stored procedure

Using the same subquery, I created a procedure **FindService** to make the process of searching for specific services easier.

*Input:*

```
DELIMITER //

• CREATE PROCEDURE FindService(
  IN service_name VARCHAR(100)
)
BEGIN
  SELECT
    b.business_id,
    b.business_name,
    b.town,
    s.service_name,
    s.price
  FROM
    business b
  JOIN
    services s ON b.business_id = s.business_id
  WHERE
    s.service_name LIKE CONCAT('%', service_name, '%');
END //

DELIMITER ;

• CALL FindService('glam');
```

*Output:*

	business_id	business_name	town	service_name	price
▶	10	facesbydan	thamesmead	natural glam	55.00
	8	gracesglamour	wood green	full glam	75.00

# Group by & Having

Here I have retrieved businesses with an average rating greater than 3 using the **groupby** and **having** clause, helping users find top-rated establishments.

*Input:*

```
SELECT
    b.business_name,
    b.town,
    AVG(r.rating) AS average_rating,
    COUNT(r.review_id) AS total_reviews
FROM
    business b
LEFT JOIN
    reviews r ON b.business_id = r.business_id
GROUP BY
    b.business_id, b.business_name, b.town
HAVING
    average_rating > 3
ORDER BY
    average_rating DESC;
```

*Output:*

	business_name	town	average_rating	total_reviews	
▶	hairbyb	thamesmead	5.0000	1	
▶	fghair	hackney	5.0000	1	
	facesbydan	thamesmead	5.0000	1	
▶	jcutz	bexleyheath	4.0000	1	
	beckybraidedit	romford	4.0000	1	



# Event

The **delete\_old\_reviews** event checks weekly for and deletes any reviews that have been posted for over one year keeping it up-to-date.

*Input:*

```
DELIMITER //
```

```
CREATE EVENT delete_old_reviews
```

```
ON SCHEDULE EVERY 1 WEEK
```

```
DO
```

```
) BEGIN
```

```
DELETE FROM reviews
```

```
WHERE timestamp < NOW() - INTERVAL 1 YEAR;
```

```
- END //
```

```
DELIMITER ;
```

# Trigger

The **deleteLinkedData** trigger removes related records from other tables when a business record is deleted, ensuring data consistency.

```
DELIMITER //
```

```
CREATE TRIGGER deleteLinkedData
```

```
BEFORE DELETE ON business
```

```
FOR EACH ROW
```

```
BEGIN
```

```
DELETE FROM services WHERE business_id = OLD.business_id;
```

```
DELETE FROM business_hours WHERE business_id = OLD.business_id;
```

```
DELETE FROM reviews WHERE business_id = OLD.business_id;
```

```
DELETE FROM address WHERE business_id = OLD.business_id;
```

```
END//
```

```
DELIMITER ;
```

```
# Testing
```

```
INSERT INTO business (business_name, town, phone_number, business_email, website, emergency_appointments)
```

```
VALUES ('Sample Business', 'Town', '123456789', 'sample@example.com', 'www.sample.com', TRUE);
```

```
INSERT INTO services (business_id, service_name, duration, price)
```

```
VALUES (12, 'Service A', 1.5, 50.00);
```

```
INSERT INTO address (business_id, street, town, postcode)
```

```
VALUES (12, 'Sample street', 'Sample Town', 'SMPL3');
```

```
# BEFORE DELETION
```

```
SELECT * FROM services WHERE business_id = 12;
```

```
SELECT * FROM address WHERE business_id = 12;
```

```
DELETE FROM business WHERE business_id = 12;
```

```
# AFTER DELETION
```

```
SELECT * FROM services WHERE business_id = 12;
```

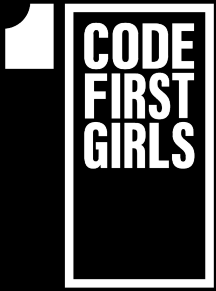
```
SELECT * FROM address WHERE business_id = 12;
```

*Before:*

	service_id	business_id	service_name	duration	price
▶	16	12	Service A	1.50	50.00
	NULL	NULL	NULL	NULL	NULL
	address_id	business_id	street	town	postcode
▶	12	12	Sample street	Sample Town	SMPL3
	NULL	NULL	NULL	NULL	NULL

*After:*

	service_id	business_id	service_name	duration	price
▶	NULL	NULL	NULL	NULL	NULL
	address_id	business_id	street	town	postcode
▶	NULL	NULL	NULL	NULL	NULL



THANK you