BC

BC DATACRAFT SOLUTIONS

PROJECT
PROPOSAL

Prepared for :

BROW BLISS STUDIO

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INTRODUCTION

Brow Bliss Studio is a thriving salon specializing in brow and grooming services, as well as permanent makeup for brows. To support its continued growth and success, Brow Bliss Studio is seeking to enhance its organizational efficiency and customer service capabilities by implementing a comprehensive database management system. This system will streamline salon operations, optimize resource allocation, and provide valuable insights into business performance.

The full implementation of the database should take approximately 4 weeks from the date of approval. All staff will be trained and will be using the database within that time frame.

MISSION

Brow Bliss Studio mission is to deliver exceptional beauty services while ensuring a seamless experience for both their clients and staff.

VISION

It is recognized the need for an integrated database solution to empower the salon and its staff to:

- efficiently manage customer and staff information
- keep track of services provided
- monitor and control product inventory
- handle various employee compensation structures
- streamline contract managment
- facilitate departmental organization and employee promotions.

ABOUT US

BC DataCraft Solutions is a consulting firm that offers a wide range of services aimed at helping businesses harness the power of data and information management. Our mission is to empower businesses with innovative data driven solutions to enhance their efficiency, productivity and overall success.

WHAT WE DO:

- Database Design & Development
- Data Integration
- Data Analytics & Reporting
- Ongoing Support and Maintenance

INFORMATION REQUIREMENTS

To meet the specific requirements of Brow Bliss Studio, we propose the development of a robust database system that will encompass the following key elements:

CUSTOMER INFORMATION

Store and manage customer details, including names, contact information, and stylist preferences

STAFF INFORMATION

Store staff profiles, track employee roles, employment type (W2 or subcontractor) and compensation structures.

SERVICE RECORDS

Catalog and manage info about services, and record details of services performed, pricing and appointment scheduling.

PRODUCT INVENTORY

keep a real-time inventory of aftercare & retail products, and implement stock management features to avoid any shortages.

COMPENSATION & PAYROLL

Manage employee compensation, distinguishing between hourly (W2) and commission based (subcontractor) structures, and record salary and pay adjustments.

DEPARTMENT MANAGEMENT

Organize staff into various departments, and track promotions and role changes within the organization.

BUSINESS RULES & ASSUMPTIONS

To ensure the successful implementation of the database system and with information provided by Brow Bliss Studio, we have identified the following key business rules and assumptions:

- A contract is required for every employee and is subject for updates for any employment related changes.
- Contracts must be signed by both employee and the salon owner or a manager.
- Salary changes are tracked, but they do not necessitate a new contract.
- Only managers receive a fixed annual salary.
- An employee should be either a W2 employee or independent contractor.
- An employee can be promoted to a managerial role.
- Stylists should not be double-booking during overlapping time slots.
- Appointments can be canceled or rescheduled, but with proper notification to customers and vice versa.
- Products provided for aftercare should be automatically deducted from inventory after sale.
- Restocking of products should be initiated when inventory falls below a specific threshold.
- Stylists should be associated with the services they are qualified to perform.
- Promotions or demotions should trigger appropriate changes in compensation and roles.

ERD

ERDs (Entity Relationship Model) are widely used to help businesses understand how data is organized and how different elements of the database interact with each other. Here is the blueprint that illustrates the structure of the database.
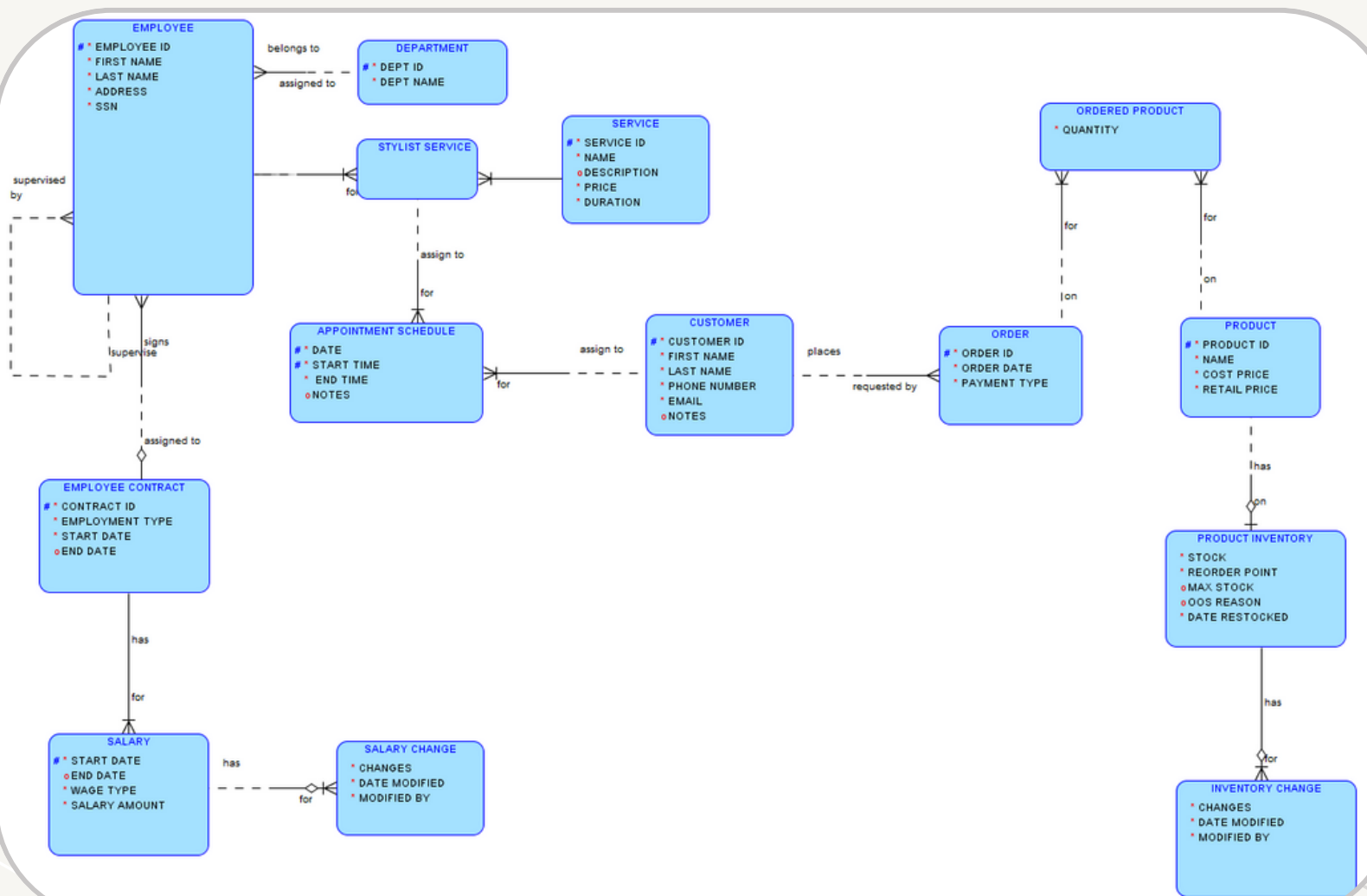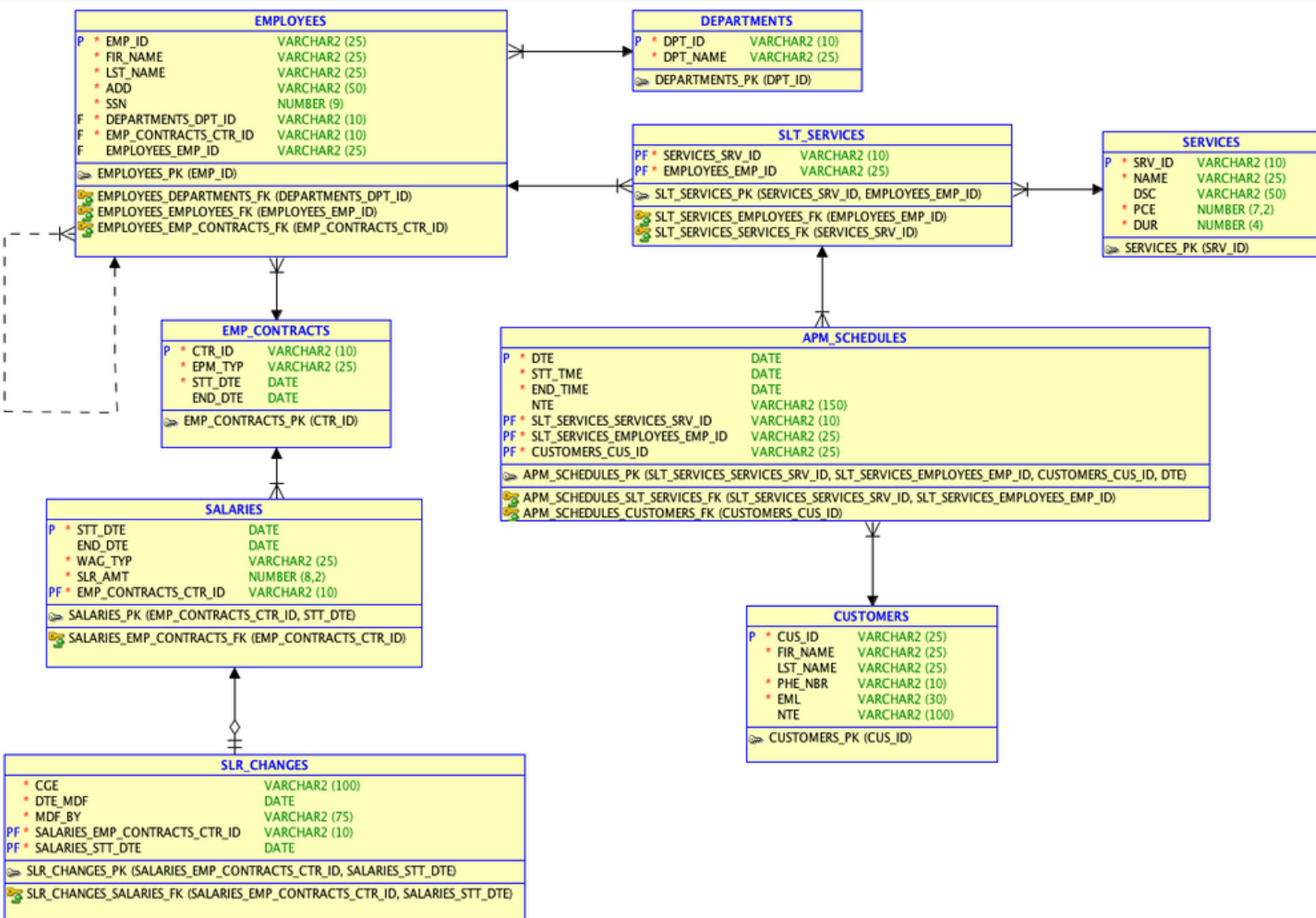
RELATIONAL MODEL
PART 1

Here is the relational model that describes the data and the relationships between different pieces of data within the database. 9 entities are displayed in Part 1.
Please refer to 'constraint_abbr' excel file for abbreviation key.
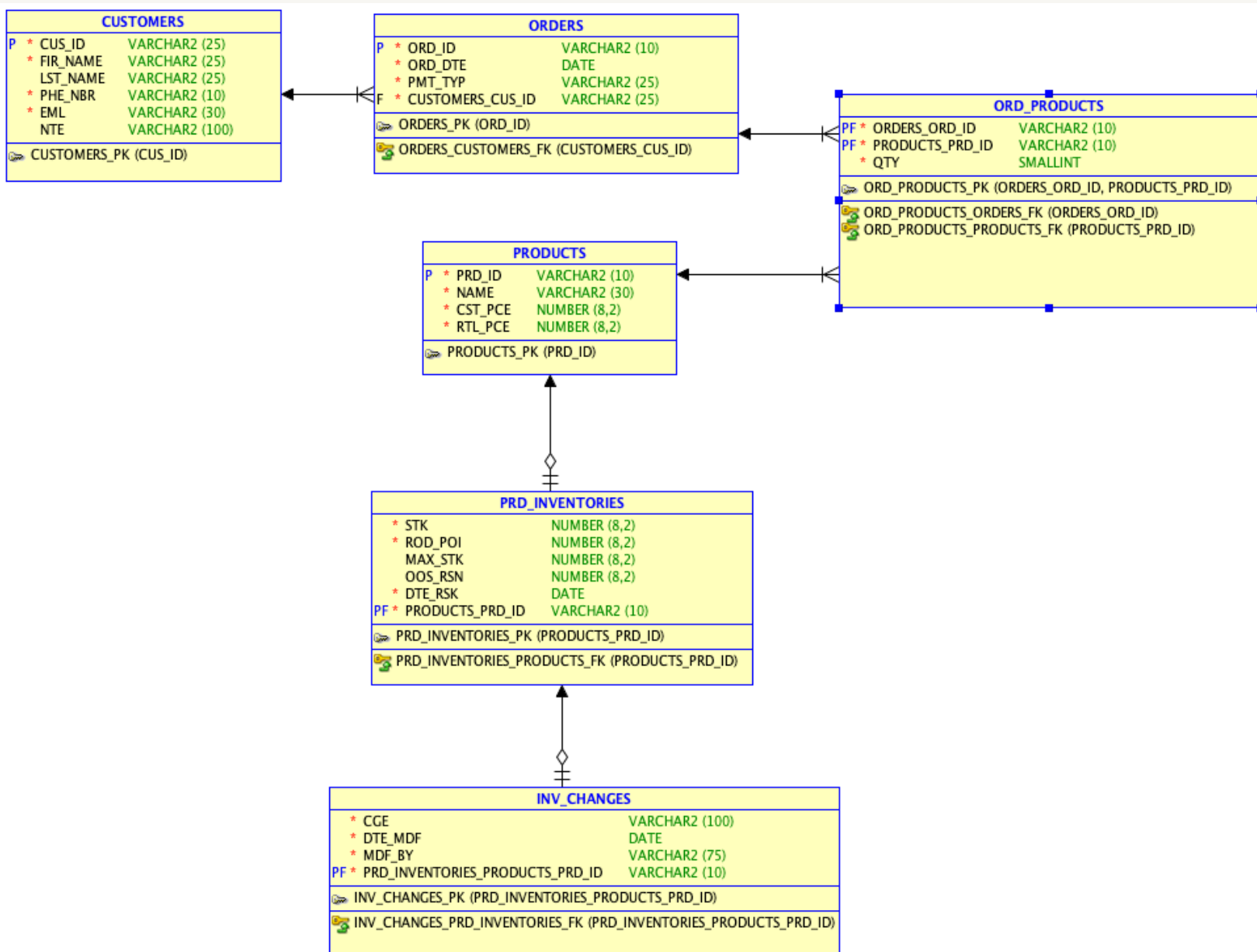
EMPLOYEES

P	* EMP_ID	VARCHAR2 (25)
	* FIR_NAME	VARCHAR2 (25)
	* LST_NAME	VARCHAR2 (25)
	* ADD	VARCHAR2 (50)
	* SSN	NUMBER (9)
F	* DEPARTMENTS_DPT_ID	VARCHAR2 (10)
F	* EMP_CONTRACTS_CTR_ID	VARCHAR2 (10)
F	EMPLOYEES_EMP_ID	VARCHAR2 (25)

EMPLOYEES_PK (EMP_ID)

EMPLOYEES_DEPARTMENTS_FK (DEPARTMENTS_DPT_ID)
EMPLOYEES_EMPLOYEES_FK (EMPLOYEES_EMP_ID)
EMPLOYEES_EMP_CONTRACTS_FK (EMP_CONTRACTS_CTR_ID)

DEPARTMENTS

P	* DPT_ID	VARCHAR2 (10)
	* DPT_NAME	VARCHAR2 (25)

DEPARTMENTS_PK (DPT_ID)

SLT_SERVICES

PF	* SERVICES_SRV_ID	VARCHAR2 (10)
PF	* EMPLOYEES_EMP_ID	VARCHAR2 (25)

SLT_SERVICES_PK (SERVICES_SRV_ID, EMPLOYEES_EMP_ID)

SLT_SERVICES_EMPLOYEES_FK (EMPLOYEES_EMP_ID)
SLT_SERVICES_SERVICES_FK (SERVICES_SRV_ID)

SERVICES

P	* SRV_ID	VARCHAR2 (10)
	* NAME	VARCHAR2 (25)
	DSC	VARCHAR2 (50)
	* PCE	NUMBER (7,2)
	* DUR	NUMBER (4)

SERVICES_PK (SRV_ID)

EMP_CONTRACTS

P	* CTR_ID	VARCHAR2 (10)
	* EPM_TYP	VARCHAR2 (25)
	* STT_DTE	DATE
	END_DTE	DATE

EMP_CONTRACTS_PK (CTR_ID)

APM_SCHEDULES

P	* DTE	DATE
	* STT_TME	DATE
	* END_TIME	DATE
	NTE	VARCHAR2 (150)
PF	* SLT_SERVICES_SERVICES_SRV_ID	VARCHAR2 (10)
PF	* SLT_SERVICES_EMPLOYEES_EMP_ID	VARCHAR2 (25)
PF	* CUSTOMERS_CUS_ID	VARCHAR2 (25)

APM_SCHEDULES_PK (SLT_SERVICES_SERVICES_SRV_ID, SLT_SERVICES_EMPLOYEES_EMP_ID, CUSTOMERS_CUS_ID, DTE)

APM_SCHEDULES_SLT_SERVICES_FK (SLT_SERVICES_SERVICES_SRV_ID, SLT_SERVICES_EMPLOYEES_EMP_ID)
APM_SCHEDULES_CUSTOMERS_FK (CUSTOMERS_CUS_ID)

SALARIES

P	* STT_DTE	DATE
	END_DTE	DATE
	* WAG_TYP	VARCHAR2 (25)
	* SLR_AMT	NUMBER (8,2)
PF	* EMP_CONTRACTS_CTR_ID	VARCHAR2 (10)

SALARIES_PK (EMP_CONTRACTS_CTR_ID, STT_DTE)

SALARIES_EMP_CONTRACTS_FK (EMP_CONTRACTS_CTR_ID)

CUSTOMERS

P	* CUS_ID	VARCHAR2 (25)
	* FIR_NAME	VARCHAR2 (25)
	LST_NAME	VARCHAR2 (25)
	* PHE_NBR	VARCHAR2 (10)
	* EML	VARCHAR2 (30)
	NTE	VARCHAR2 (100)

CUSTOMERS_PK (CUS_ID)

SLR_CHANGES

	* CGE	VARCHAR2 (100)
	* DTE_MDF	DATE
	* MDF_BY	VARCHAR2 (75)
PF	* SALARIES_EMP_CONTRACTS_CTR_ID	VARCHAR2 (10)
PF	* SALARIES_STT_DTE	DATE

SLR_CHANGES_PK (SALARIES_EMP_CONTRACTS_CTR_ID, SALARIES_STT_DTE)
SLR_CHANGES_SALARIES_FK (SALARIES_EMP_CONTRACTS_CTR_ID, SALARIES_STT_DTE)

RELATIONAL MODEL
PART 2

Here are the other 6 tables (CUSTOMERS table appearing again to show relationship).
Please refer to 'constraint_abbr' excel file for abbreviation key.

CUSTOMERS

P	* CUS_ID	VARCHAR2 (25)
	* FIR_NAME	VARCHAR2 (25)
	LST_NAME	VARCHAR2 (25)
	* PHE_NBR	VARCHAR2 (10)
	* EML	VARCHAR2 (30)
	NTE	VARCHAR2 (100)

CUSTOMERS_PK (CUS_ID)

ORDERS

P	* ORD_ID	VARCHAR2 (10)
	* ORD_DTE	DATE
	* PMT_TYP	VARCHAR2 (25)
F	* CUSTOMERS_CUS_ID	VARCHAR2 (25)

ORDERS_PK (ORD_ID)

ORDERS_CUSTOMERS_FK (CUSTOMERS_CUS_ID)

ORD_PRODUCTS

PF	* ORDERS_ORD_ID	VARCHAR2 (10)
PF	* PRODUCTS_PRD_ID	VARCHAR2 (10)
	* QTY	SMALLINT

ORD_PRODUCTS_PK (ORDERS_ORD_ID, PRODUCTS_PRD_ID)

ORD_PRODUCTS_ORDERS_FK (ORDERS_ORD_ID)
ORD_PRODUCTS_PRODUCTS_FK (PRODUCTS_PRD_ID)

PRODUCTS

P	* PRD_ID	VARCHAR2 (10)
	* NAME	VARCHAR2 (30)
	* CST_PCE	NUMBER (8,2)
	* RTL_PCE	NUMBER (8,2)

PRODUCTS_PK (PRD_ID)

PRD_INVENTORIES

	* STK	NUMBER (8,2)
	* ROD_POI	NUMBER (8,2)
	MAX_STK	NUMBER (8,2)
	OOS_RSN	NUMBER (8,2)
	* DTE_RSK	DATE
PF	* PRODUCTS_PRD_ID	VARCHAR2 (10)

PRD_INVENTORIES_PK (PRODUCTS_PRD_ID)

PRD_INVENTORIES_PRODUCTS_FK (PRODUCTS_PRD_ID)

INV_CHANGES

	* CGE	VARCHAR2 (100)
	* DTE_MDF	DATE
	* MDF_BY	VARCHAR2 (75)
PF	* PRD_INVENTORIES_PRODUCTS_PRD_ID	VARCHAR2 (10)

INV_CHANGES_PK (PRD_INVENTORIES_PRODUCTS_PRD_ID)

INV_CHANGES_PRD_INVENTORIES_FK (PRD_INVENTORIES_PRODUCTS_PRD_ID)

CRUD ANALYSIS

CRUD analysis (CREATE, READ, UPDATE, DELETE) is a way to categorize the operations that can be performed on data in a database or system. In the context of this project for Brow Bliss Studio, here's a CRUD analysis on various components of the system.

CREATE:

- Create new customer profile with their personal information.
- Create employee profiles with personal and contact information.
- Add new services.
- Add new products in the inventory.
- Schedule new appointments for customers.
- Create appointment records with service, stylist and client details.
- Create employment contracts for new hires.
- Create new contracts for existing employees when certain changes occur (promotions).

READ:

- Retrieve customer information for appointment scheduling.
- Display customer history, including past appointments and services.
- Retrieve employee information for scheduling and payroll.
- Access employee contract details for reference.
- Retrieve information about services, their description and pricing.
- Access product details, including stock levels and pricing.
- Retrieve appointment information for stylists' schedules and customer reminders.
- Display appointment history for both customers and stylists.
- Access employee salary history to track changes over time and who made the changes..
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CRUD ANALYSIS

UPDATE:

- Update customer contact information if it changes.
- Modify appointment details or rescheduling appointments.
- Update employee information, such as contact information or employment type.
- Create new contracts for promotions and demotions.
- Update service details, such as pricing or descriptions.
- Modify product details including stock levels and pricing.
- Update appointment status (from scheduled to canceled).
- Update appropriate contract terms and conditions when changes occur.
- Modify contract details to reflect promotions, compensation changes, or other updates.
- Update salary changes for employees.

DELETE:

- Deactivate employee profiles if they leave the salon or are no longer employed. Do no permanently delete.
- Delete services or products that are no longer offered or are discontinued.
- ** Maintain contract history without permanent deletion, even when contracts are updated.
- ** Cancel appointments if necessary but does not necessitate permanent deletion.

INSTANCE CHARTS

Here are instance charts of a few of the main entities to show some examples of data before creating the database. *Please refer to 'constraint_abbr' excel file for abbreviation key.*

EMPLOYEES

COLUMN NAME	emp_id	fir_name	lst_name	add	ssn	dpt_id	ctr_id	emp_id (managed by)
Key Type	PK					FK	FK	FK
Null/Uniqe	*	*	*	*	*	*	*	o
Sample Data	12345	Sally	Johnson	123 First Lane	555-55-5555	345	777	23
	23456	Nancy	Charles	864 Congress Ave	923-64-5434	345	212	23

DEPARTMENTS

COLUMN NAME	dpt_id	dpt_name
Key Type	PK	
Null/Uniqe	*	*
Sample Data	345	Stylist
	123	Front Desk
	573	Manager

INSTANCE CHARTS

Instance charts help visualize how real-world data fits into the database schema. Here are some examples. *Please refer to 'constraint_abbr' excel file for abbreviation key.*

SERVICES

COLUMN NAME	srv_id	name	dsc	pce	dur
Key Type	PK				
Null/Uniqe	*	*	o	*	*
Sample Data	10	Ombre Brows - First Time		450.00	210 minutes
	11	Ombre Brows - Touch Up	Gradient eyebrow tattooing	175.00	150 minutes

CUSTOMERS

| COLUMN NAME	cus_id	fir_name	lst_name	phe_nbr	eml	nte
Key Type	PK					
Null/Uniqe	*	*	o	*	*	o
Sample Data	12345	Emily	Smith	695-454-3534	e.smith@gmail.com	Glue allergy. Must use clear/sensitive glue only.
	67890	Olivia	Johnson	305-958-4854	o.johnson@hotmail.com	
	34567	Mia	Davis	786-493-5849	miamoore@gmail.com	Prefers to be paired with Nancy.

CONCLUSION

Our partnership with Brow Bliss Studio allowed us to meticulously analyze their unique business requirements, resulting in a tailored database solution that addresses the specific needs of the salon.

They key achievement of this project include:

- The creation of a sophisticated database that seamlessly integrates customer and staff information, service records, product inventory management, and contract/ salary tracking.
- Implementation of a comprehensive user interface that simplifies data entry and retrieval, ensuring user-friendliness for salon and staff management.
- A scalable architecture designed to support Brow Bliss Studio's future expansion and evolving business needs.

We are confident that our database system will empower Brow Bliss Studio to thrive in the beauty industry, offering exceptional services to clients and creating a more organized and efficient environment for staff.
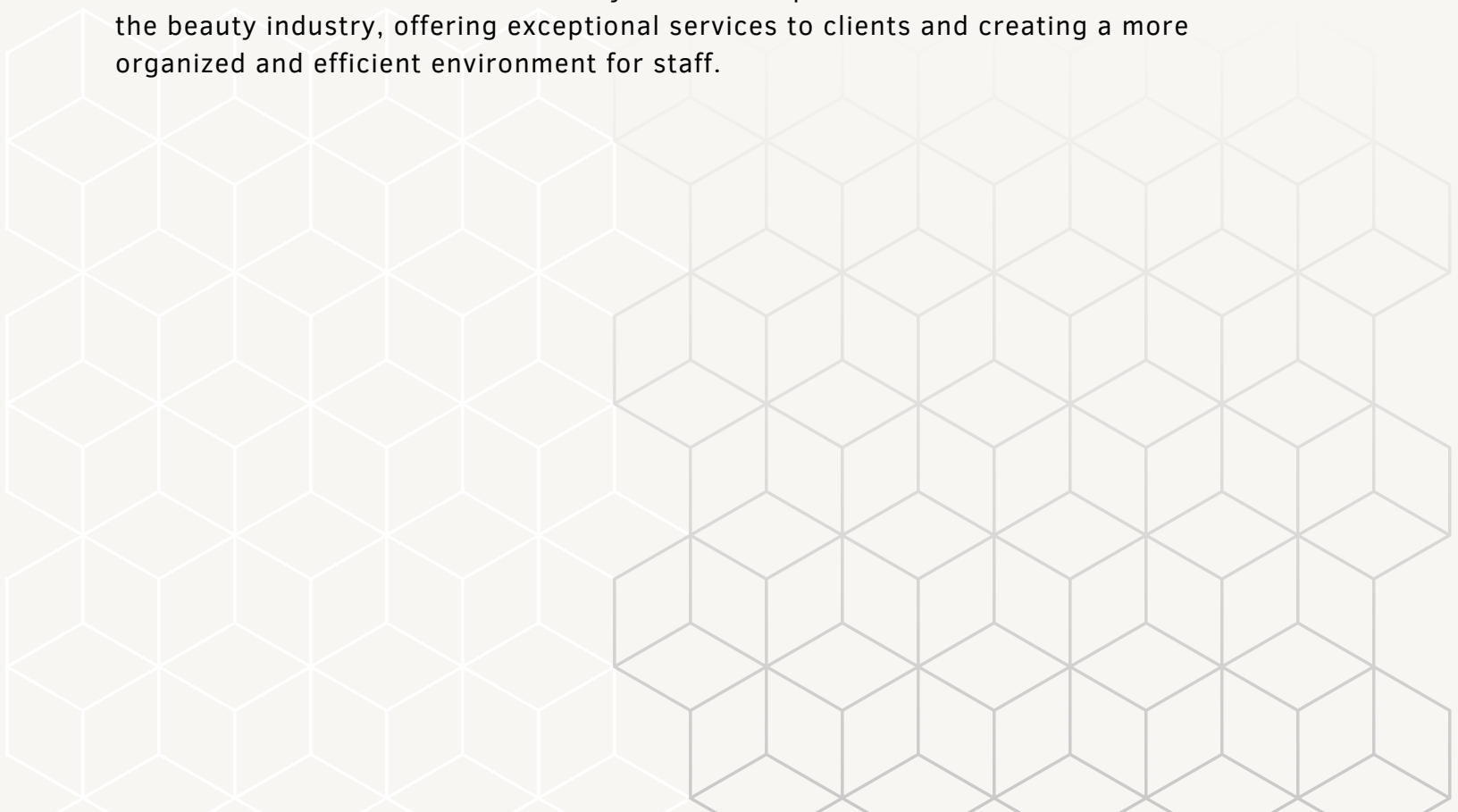
RECOMMENDATIONS

We recommend Brow Bliss Studio continue investing in staff training to maximize the benefits of the new database system. By ensuring that all team members are proficient in using the system's features and leveraging its capabilities effectively, the salon can optimize its operations, provide top-notch customer service, and make informed business decisions. Regular training sessions and refresher courses will empower the team to harness the full potential of this tool, contributing to sustained growth and success.

BC

BC DATACRAFT SOLUTIONS

THANK YOU

By choosing BC DataCraft Solutions as your trusted partner, you gain a strategic ally dedicated to helping your business thrive in today's data-driven world. We look forward to collaborating with Brow Bliss Studio and delivering a database solution that aligns perfectly with your unique needs and vision.

CONTACT US

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