

DBMS - CSC 540

Project 1 Final Submission

Team Name: Team 1

Team Member 1:(Team Lead): Wei Wu(wwu24)

Team Member 2: Wenhan Hu(whu24)

Team Member 3: Chihchung Shen(cshen9)

Team Member 4: Yuan Xu (yxu48)

RELATION MODEL

1. LOGIN

USER_ID	LOGIN_ROLE	USER_PW
---------	------------	---------

Description: This table is used to fetch the role of the logged in person such as professor, teaching assistant, student based on the user_id and password.

Key Constraints: USER_ID is the primary key.

Null Constraints: All the columns can't be null.

2. SERVICE CENTER

CENTER_ID	NAME	ADDRESS	PHONE	OPEN_DAY	OPENHOUR	QUANTITY
-----------	------	---------	-------	----------	----------	----------

Description: This table holds information about SERVICE CENTER

Key Constraints: CENTER_ID is the primary key.

Null Constraints: All the columns can't be null.

3. DISTRIBUTOR

ISTRIBUTOR_ID	DISTRIBUTOR_NAME
---------------	------------------

Description: This table holds information about DISTRIBUTOR

Key Constraints: ISTRIBUTOR_ID is the primary key.

Null Constraints: All the columns can't be null.

4. CUSTOMER

CUSTOMER_ID	PHONE	ADDRESS	NAME	EMAIL	CENTER_ID
-------------	-------	---------	------	-------	-----------

Description: This table holds information about CUSTOMER

Key Constraints: CUSTOMER_ID is the primary key.

Null Constraints: All the columns can't be null.

5. INVENTORY

PART_ID	NAME	CARTYPE	PRICE	WARRANTY	WINDOWS	D_ID
---------	------	---------	-------	----------	---------	------

Description: This table holds information about INVENTORY

Key Constraints: PART_ID is the primary key.

Null Constraints: All the columns can't be null.

6. BASIC SERVICE

BS_ID	MODEL	DETAIL	CHARGETYPE	CHARGERATE	TIME	QUANTITY	PART_ID
-------	-------	--------	------------	------------	------	----------	---------

Description: This table holds information about BASIC SERVICE

Key Constraints: BASIC_SERVICE_ID is the primary key.

Null Constraints: All the columns can't be null.

7. ORDER

ID	GEN_D	EXP_D	ACT_D	QUANTITY	ORIGIN	DEST	STATUS	PART_ID
----	-------	-------	-------	----------	--------	------	--------	---------

Description: This table holds information about ORDER

Key Constraints: PORDER_ID is the primary key.

Null Constraints: All the columns can't be null.

8. NOTIFICATION

NOTIF_ID	DATE	CENTER	MESSAGE	PORDER_ID
----------	------	--------	---------	-----------

Description: This table holds information about NOTIFICATION

Key Constraints: NOTIF_ID is the primary key.

Null Constraints: All the columns can't be null.

9. CARTYPE

BRAND	MODEL	YEAR	A_INCRE	B_INCRE	C_INCRE
-------	-------	------	---------	---------	---------

Description: This table holds information about CARTYPE

Key Constraints: BRAND and MODEL is the primary key.

Null Constraints: All the columns can't be null.

10. VEHICLE

LICENSE_NUM	DATE	MILEAGE	MADEYEAR	LASTTYPE	LASTDATE	BRAND	MODEL	CUSTOMER_ID
-------------	------	---------	----------	----------	----------	-------	-------	-------------

Description: This table holds information about VEHICLE

Key Constraints: LICENSE_NUM is the primary key.

Null Constraints: All the columns can't be null.

11. APPOINTMENT

ID	TYPE	SPECIFY	MACHANIC	DATE	BEGINTIME	ENDTIME	LINCENSE_NUM	CUSTOMER_ID
----	------	---------	----------	------	-----------	---------	--------------	-------------

Description: This table holds information about APPOINTMENT

Key Constraints: APPOINTMENT_ID is the primary key.

Null Constraints: All the columns can't be null.

12. EMPLOYEE

ID	NAME	ROLE	ADDRESS	EMAIL	PHONE	STARTDATE	WAGE	FREQ	CENTER_ID
----	------	------	---------	-------	-------	-----------	------	------	-----------

Description: This table holds information about EMPLOYEE

Key Constraints: EMPLOYEE_ID is the primary key.

Null Constraints: All the columns can't be null.

13. CARSERVICE

ID	STARTTIME	ENDTIME	STATUS	LABORFEE	PARTFEE	TITOL COST	APPOINTMENT_ID
----	-----------	---------	--------	----------	---------	------------	----------------

Description: This table holds information about CARSERVICE

Key Constraints: CARSERVICE_ID is the primary key.

Null Constraints: All the columns can't be null.

14. REPAIR SERVICE

REPAIR_ID	DETAIL	DIAGNOSTIC	FEE
-----------	--------	------------	-----

Description: This table holds information about REPAIR SERVICE

Key Constraints: REPAIR_ID is the primary key.

Null Constraints: All the columns can't be null.

15. PAY ROLL

ID	DATE	UNITS	TYPE	CUR EARN	SO FAR EARN	EMP_ID
----	------	-------	------	----------	-------------	--------

Description: This table holds information about PAY ROLL

Key Constraints: PAYROLL_ID is the primary key.

Null Constraints: All the columns can't be null.

16. INVENTORY AUTOGENERATE ORDER

PORDER_ID	PART_ID
-----------	---------

Description: This table holds information about relation between INVENTORY and ORDER

Key Constraints: PART_ID and PORDER_ID is the primary key.

Null Constraints: All the columns can't be null.

17. CAR HAS BASIC SERVICE

BRAND	MODEL	TYPE	BASIC_SERVICE_ID
-------	-------	------	------------------

Description: This table holds information about relation between CAR and BASIC SERVICE

Key Constraints: BRAND, MODEL and BASIC_SERVICE_ID is the primary key.

Null Constraints: All the columns can't be null.

18. REPAIR SERVICE HAS BASIC SERVICE

REPAIR_ID	MODEL	BASIC_SERVICE_ID
-----------	-------	------------------

Description: This table holds information about relation between REPAIR SERVICE and BASIC SERVICE

Key Constraints: REPAIR_ID and BASIC_SERVICE_ID is the primary key.

Null Constraints: All the columns can't be null.

19. MAINTENANCE SERVICE HAS BASIC SERVICE

MAINTENANCE_ID	MODEL	TYPE	BASIC_SERVICE_ID
----------------	-------	------	------------------

Description: This table holds information about relation between MAINTENANCE SERVICE and BASIC SERVICE

Key Constraints: MAINTENANCE_ID and BASIC_SERVICE_ID is the primary key.

Null Constraints: All the columns can't be null.

20. SERVICE CENTER HAS INVENTORY

PART_ID	CENTER_ID	MIN) STOCK	MIN_ORDER	CUR_STOCK
---------	-----------	------------	-----------	-----------

Description: This table holds information about relation between SERVICE CENTER and INVENTORY

Key Constraints: PART_ID and CENTER_ID is the primary key.

Null Constraints: All the columns can't be null.

DESCRIPTION

Database constraints

This section shows constraints that couldn't be implemented in the database at all and had to be implemented in application code

- Catch today's date and time to store in the database
- Find two earliest available dates in the appointment and schedule
- Calculates total labor hours, labor wages per hour, total service cost
- Calculate service end time
- Add a new order when inventory is insufficient.
- Change the status of appointment when there is no available dates
- Show the message when daily task is done
- Add the parts needed in the service A, B and C when new model is added