Beykoz University

Department of “Computer Engineering”

“Database Systems”

Project Phase 1 Report

- Restaurant Management System -

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1.Brief Description of the System

This study includes a new database application that will help the restaurant manager to manage the restaurant more effectively and efficiently by computerizing meal ordering, billing and inventory control. This is the main purpose of this Project.
The database infrastructure of the program is MSSql.

The goals of our system are:
1. To manage chaotic systems in an easy & most effective way.
2. To promote online ordering & management software systems on the internet.
3. To provide an “anytime anyplace service” for the customer.
4. To obstruct wasting time while managing a restaurant manually.

1.1 Scope Definition

This system is to automate day to day activity of a restaurant.
Scope of project in building a computerized system for silk route to handle billing restaurant records was to include the employees who are involved in the process of billing of a customer to storage of restaurant records and enable them to view the records as desired. The employees are given limited access in order to safeguard the privacy and security of the records. Also, the application that will be created in the project will help managers and other employees to run the restaurant properly and will save a big amount of time, make the system work correctly. The database is maintained in the whole project.

1.2. Determining System Requirements

1. Users (both restaurant managers, waiters, chefs) can login to the system and will be able to do different operations.
2. Restaurant manager (owner) can modify (change) its own data.
3. The system can verify the data before a transaction.
4. Restaurant manager should be able to update information about his/her restaurant.
5. Restaurant manager should be able to view weekly sales for his/her (own) outlet.
6. All the users including (restaurant manager, chef, waiter, customer) can check menu / food data by clicking on a certain menu's main page in a web application (or just page).

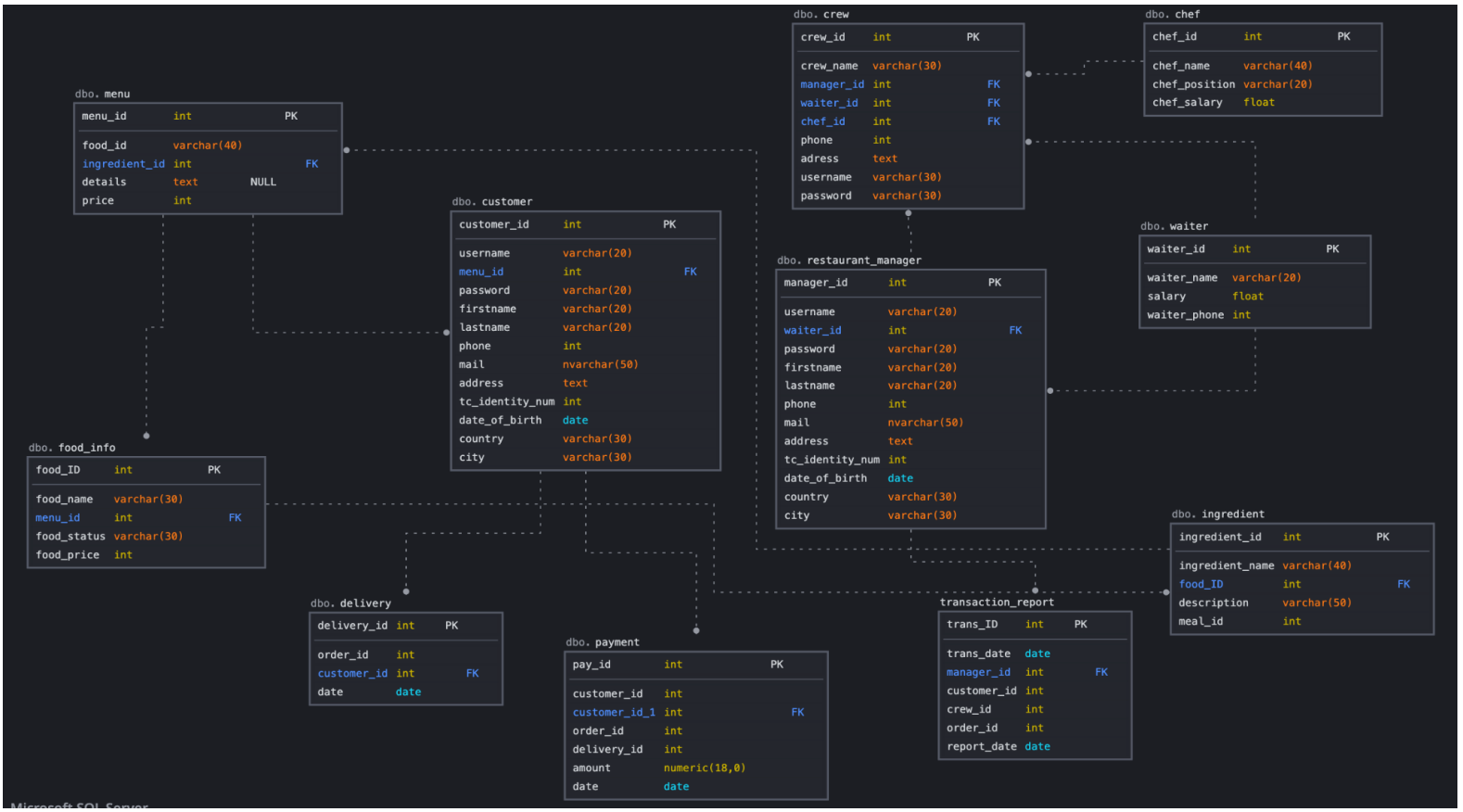
1.3 Potential Users of the System

After the database design, user screen designs with different authorizations to use the system were made. Database tables were created to meet the needs of three different types of users.

- ***Restaurant Manager*** – Restaurant manager will receive statistical reports and will be able to follow business operations
- ***Customer*** – Customers can order the food by using this software from computers & also mobile smartphones.
- ***Employees (Waiter,Chef, Supplier)*** - Some of the sales department employees are authorized to use the system to define new campaigns and prepare reports for management.

2. Design of Database System

2.1 Database Design



2.2 Data Dictionary

Table Name	Attribute Name	Contents	Type	Format	Domain	PK/FK	FK Reference
customer	customer_id	customer ID	bigint	9,223,372,036, 854,775,807		PK	
	username	Username	nvarchar(30)	xxxxxxxxxxxxx	30		
	password	Password	varchar(20)	xxxxxxxxxxxxx	20		
	lastname	Lastname	nvarchar(30)	xxxxxxxxxxxxx	30		
	menu_id	Menu ID	bigint	9,223,372,036, 854,775,807		FK	menu
	phone	Phone Number	bigint	9,223,372,036, 854,775,807			
	mail	Mail Adress	nvarchar(50)	xxxxxxxxxxxxx			
	address	Adress	text	xxxxxxxxxxxxx			
	tc_identity_num	TC Identity Number	bigint	9,223,372,036, 854,775,807			
	date_of_birth	Birthday	date	YYYY-MM-DD hh:mm:ss[.nnn]			
	country	Country Name	varchar(50)	xxxxxxxxxxxxx	50		
	city	City Name	varchar(50)	xxxxxxxxxxxxx	50		
menu	menu_id	Menu ID	bigint	9,223,372,036, 854,775,807		PK	menu
	food_id	Food ID	int	2.147.483.647			
food_info	food_name	Food Name	varchar(20)	2.147.483.647		PK	food_name
	food_status	food Status	varchar(30)	xxxxxxxxxxxxx	20		
delivery	delivery_id	delivery ID	bigint	9,223,372,036, 854,775,807		PK	delivery ID
	order_id	order ID	bigint	9,223,372,036, 854,775,807			
	date	date of delivery	dateTime2	YYYY-MM-DD hh:mm:ss[.nnn]			
waiter	waiter_id	waiter ID	bigint	9,223,372,036, 854,775,807		PK	waiter ID
	salary	salary of waiter	float				
crew	crew_id	crew ID	bigint	9,223,372,036, 854,775,807		PK	
	manager_id	manager ID	bigint	9,223,372,036, 854,775,807		FK	manager_id
	phone	Phone Number	int	2.147.483.647			
	username	Username	varchar(30)	xxxxxxxxxxxxx			
transaction_report	trans_ID	Trans ID	bigint	9,223,372,036, 854,775,807		PK	trans_id
	manager_id	manager ID	bigint	9,223,372,036, 854,775,808		FK	manager id
	customer_id	customer ID	int	2.147.483.647			
	report_date	date of report	dateTime2	YYYY-MM-DD hh:mm:ss[.nnn]			date
payment	pay_id	payment ID	bigint	9,223,372,036, 854,775,807		PK	payment
	customer_id	customer ID	bigint	9,223,372,036, 854,775,807		FK	customer ıd
	order_id	order ID	bigint	9,223,372,036, 854,775,807			
	delivery_id	delivery ID	int	2.147.483.647			delivery ID
	amount	amount of money	numeric(18,0)	9,223,372,036, 854,775,807			
	date	date of payment	dateTime2	YYYY-MM-DD hh:mm:ss[.nnn]			
ingredient	ingreditent name	The Name of ingredient	bigint	9,223,372,036, 854,775,807		PK	ingredient
	food_ID	The ID of food	int	xxxxxxxxxxxxx	40	FK	food
	description	description of ingredient	nvarchar(50)	xxxxxxxxxxxxx	50		
	meal_id	the id number of meal	bigint	9,223,372,036, 854,775,807			