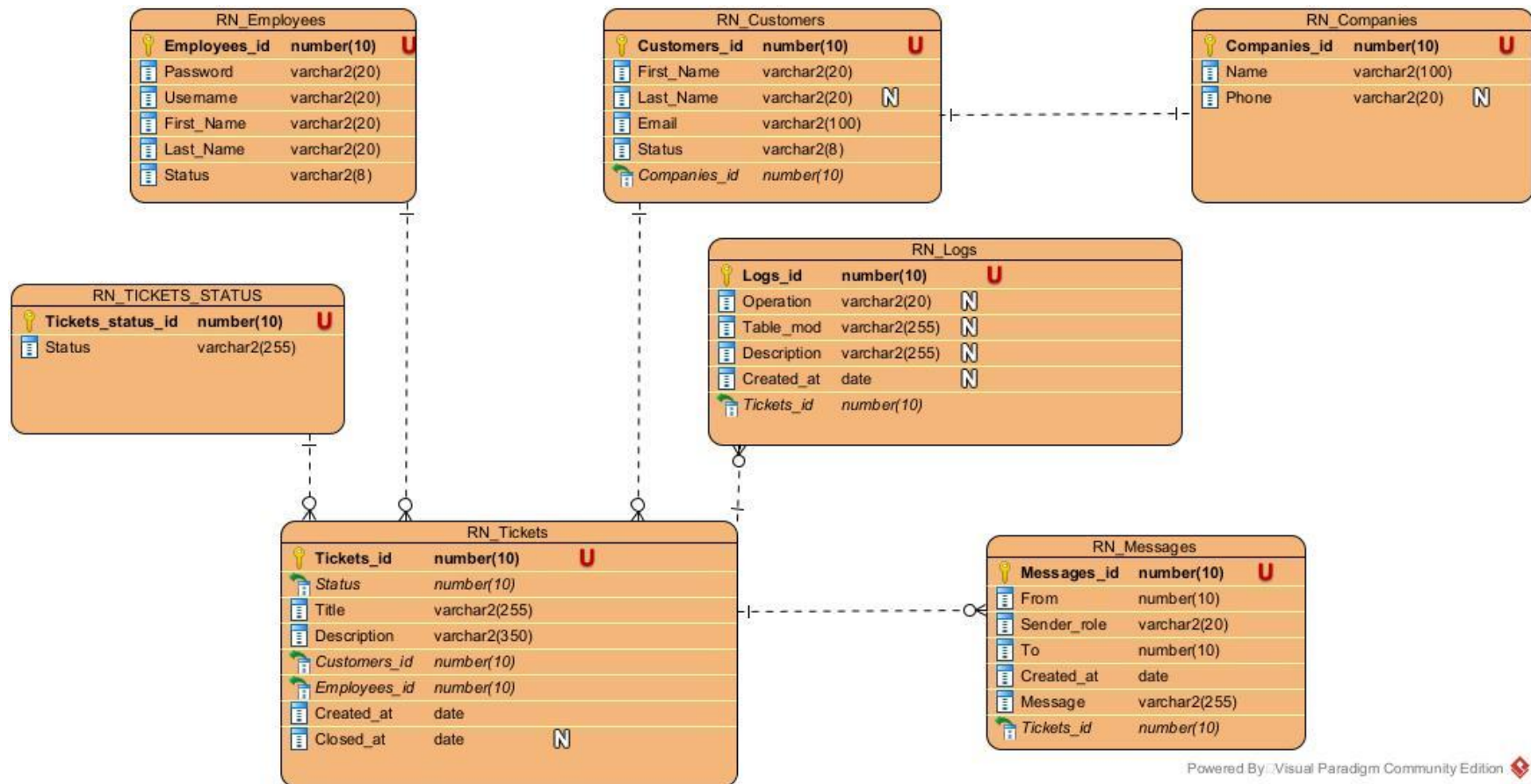


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ERD DIAGRAM



BRIEF EXPLANATION

Script content:

The script simulates the database of an IT Support Ticketing System.

Business Logic:

1. Customers and Employees information is stored in the database
2. When a customer has an issue, he opens a ticket
3. The ticket is assigned to the employee with less workload (number of tickets already assigned)
4. Once the ticket is created and assigned, customer and employee can start chatting about the issue
5. Ticket assignment and send of messages are events that generate records in the RN_Log table
6. Employees own a status: *Active or Disabled*
7. Tickets own a status: *Assigned, Research, StandBy, Solved, or Closed*

Testable parts of main logic:

- Insertions, Selects, Updates, and Deletions
- Flow to update the company of a customer
- Flow to generate a ticket
- Flow of chat
- Get the number of tickets not yet closed
- Search tickets by title (Indexed searches)

Requirements covered

Database: Included in the script file

Data tables:

Lookup tables: RN_TICKET_STATUS

Audit/log tables: RN_LOGS

Constraints: Used in tables

ER diagram file: Included in this file

Minimum – 5 and Maximum 10 tables:

#	TABLE	TYPE
1	RN_CUSTOMERS	Data table
2	RN_EMPLOYEES	Data table
3	RN_TICKETS	Data table
4	RN_COMPANIES	Data table
5	RN_MESSAGES	Data table
6	RN_TICKET_STATUS	Lookup table
7	RN_LOGS	Data table

Sequences

1	rn_companies_seq;
2	rn_employees_seq;
3	rn_customers_seq;
4	rn_tickets_seq;
5	rn_messages_seq;
6	rn_logs_seq;

Indexes

customers_last_name_i	To search in table rn_customers by last_name
tickets_title_i	To search in table rn_tickets by title

Triggers

ADD_TICKET_EVENT_TO_LOG	Creates a record when a new ticket is created
LOG_MESSAGE	Creates a record when someone sends a message

Procedures

PRC_UPDATE_CUSTOMER_COMPANY	Updates company linked to a customer
PRC_CUSTOMER_CREATES_TICKET	Customer creates a new ticket
CREATE_MESSAGE	Customer or Employee sends a message

Functions

GET_DIFF_DATES_IN_HOURS	Returns the number of hours a ticket is being opened
GET_OPENED_TICKETS	Returns the number of tickets that have not yet been closed
GET_EMPLOYEE_LESS_TICKETS	Returns the employee id who has less tickets assigned

Packages

EMPLOYEE_MGMT	Handles all logic of employees	Includes 1 function
CUSTOMER_MGMT	Handles all logic of customers	Includes 2 procedures, and 1 global variable
TICKET_MGMT	Handles all logic of tickets	Includes 3 functions, 1 procedure, and 1 private variable

* Constrains and attributes %TYPE, %ROWTYPE, have been used throughout all the script

* All data tables have 10 or more records, and the lookup table has 5 records.