Galactic Rentals - SQL Assignment Report

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# Introduction

This report documents the design and implementation of a rental tracking system for Galactic Rentals using SQL. The objective was to migrate paper-based rental logs to a structured, reliable relational database while enforcing integrity rules.

# Understanding the Data (relational data)

The provided CSV file contained the following columns:

* + Rental\_ID (Unique ID)
  + Customer\_Name
  + Costume\_Name
  + Rent\_Date
  + Return\_Date (nullable)
  + Daily\_Fee

# Database Design

A table called `rentals` was created with the following structure:

Column | Type | Constraints

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rental\_id | INT | PRIMARY KEY customer\_name | VARCHAR(100) | NOT NULL, NOT EMPTY costume\_name | VARCHAR(100) | NOT NULL, NOT EMPTY

rent\_date | DATE | NOT NULL, <= CURRENT DATE return\_date | DATE | NULLABLE, >= rent\_date daily\_fee | DECIMAL(6,2) | > 0

inserted\_at | TIMESTAMP | Default current timestamp updated\_at | TIMESTAMP | Auto-updated on record change

# SQL Script

A complete SQL script was written to:

* + Drop the table if it exists.
  + Create the table with integrity constraints.
  + Insert data from the provided CSV.
  + Run queries for exploration (popular items, overdue returns, etc.).
  + **Relational Schema Digram //**

|  |  |
| --- | --- |
| Rentals |  |
| Reantal\_id | INT , PRIMARY KEY |
| Customer\_name | VARCHAR(100) ,NOT NULL |
| Costume\_name | VARCHAR(100) ,NOT NULL |
| Rent\_date | DATE, NOT NULL |
| Return\_date | DATE |
| Daily\_fee | DECIMAL (10,2) , NOT NULL |
| Inserted\_at | TIMESTAMP , DEFUALT NOW |
| Updated\_at | TIMESTAMP , ON UPDATE NOW |

# 5-Sample Screenshots

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