



bike-rental

Data Dictionary

Server: Bike-Rental Connection

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Version: 1.0

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1. Introduction

A data dictionary is a collection of metadata such as object name, data type, size, classification, and relationships with other data assets. It is used by data administrators, analysts, and engineers to understand and trust data assets. It helps in the creation of authentic, transparent, and consistent data throughout the organization.

In this data dictionary, following servers are chosen for documentation:
Bike-Rental Connection (MySQL)

For each server, definitions of tables (entities/collections), views, functions are listed in order. Detailed properties of data elements (data type, size, nullability, optionality, indexes, foreign keys, constraints) are organized in tabular format.

2. Server: Bike-Rental Connection (MySQL)

Version: 5.7.14

1 database is listed below.


2.1. Database: bike-rental

Database objects to be listed: 8 tables

2.1.1. Tables

2.1.1.1. Table: bike

Fields

Pos	Name	Type	Not Null	Others
1	BikeID 	int(10) Auto Increment	✓	
2	BikeSerialNumber	varchar(50)	✓	Index: BikeSerialNumber
3	Model	varchar(50)		
4	BikeType	varchar(30)	✓	
5	CurrentStatus	enum	✓	
6	LastMaintenanceDate	date		
7	RentalRatePerMinute	decimal(5, 2)	✓	
8	LocationID	int(10)	✓	Index: LocationID


Indexes

Name	Type	Method	Fields
BikeSerialNumber	UNIQUE	BTREE	BikeSerialNumber
LocationID	NORMAL	BTREE	LocationID

2.1.1.2. Table: customer

Fields

Pos	Name	Type	Not Null	Others
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1	CustomerID 	int(10) Auto Increment	✓	
2	NationalID	varchar(20)	✓	Index: NationalID
3	FirstName	varchar(50)	✓	
4	LastName	varchar(50)	✓	
5	Email	varchar(100)	✓	Index: Email
6	PhoneNumber	varchar(20)		
7	DateOfBirth	date		
8	RegistrationDate	datetime	✓	
9	Password	char(60)	✓	

Indexes

Name	Type	Method	Fields
NationalID	UNIQUE	BTREE	NationalID
Email	UNIQUE	BTREE	Email

2.1.1.3. Table: feedback

Fields


Pos	Name	Type	Not Null	Others
1	FeedbackID 	int(10) Auto Increment	✓	
2	RentalID	int(10)	✓	Index: RentalID
3	Rating	tinyint(4)	✓	Index: Rating
4	Comments	text		
5	FeedbackDate	datetime	✓	

Indexes

Name	Type	Method	Fields
RentalID	UNIQUE	BTREE	RentalID
Rating	NORMAL	BTREE	Rating

2.1.1.4. Table: location

Fields


Pos	Name	Type	Not Null	Others
1	LocationID 	int(10) Auto Increment	✓	
2	LocationName	varchar(100)	✓	Index: LocationName
3	Address	varchar(255)	✓	
4	City	varchar(50)	✓	
5	PhoneNumber	varchar(20)		
6	Capacity	int(10)		

Indexes

Name	Type	Method	Fields
LocationName	UNIQUE	BTREE	LocationName

2.1.1.5. Table: maintenance

Fields


Pos	Name	Type	Not Null	Others
1	MaintenanceID 	int(10) Auto Increment	✓	
2	BikeID	int(10)	✓	Index: BikeID
3	StaffID	int(10)	✓	Index: StaffID
4	MaintenanceDate	datetime	✓	
5	Description	text	✓	
6	Cost	decimal(8, 2)	✓	

Indexes

Name	Type	Method	Fields
BikeID	NORMAL	BTREE	BikeID
StaffID	NORMAL	BTREE	StaffID

2.1.1.6. Table: payment

Fields


Pos	Name	Type	Not Null	Others
1	PaymentID 	int(10) Auto Increment	✓	
2	RentalID	int(10)	✓	Index: RentalID
3	PaymentDate	datetime	✓	
4	Amount	decimal(8, 2)	✓	
5	PaymentMethod	varchar(50)	✓	
6	TransactionID	varchar(100)	✓	Index: TransactionID

Indexes

Name	Type	Method	Fields
TransactionID	UNIQUE	BTREE	TransactionID
RentalID	NORMAL	BTREE	RentalID

2.1.1.7. Table: rental

Fields


Pos	Name	Type	Not Null	Others
1	RentalID 	int(10) Auto Increment	✓	
2	CustomerID	int(10)	✓	Index: CustomerID
3	BikeID	int(10)	✓	Index: BikeID
4	RentalStart	datetime	✓	
5	RentalEnd	datetime	✓	
6	TotalCost	decimal(8, 2)	✓	
7	PaymentStatus	enum	✓	

Indexes

Name	Type	Method	Fields
CustomerID	NORMAL	BTREE	CustomerID
BikeID	NORMAL	BTREE	BikeID

2.1.1.8. Table: staff

Fields

Pos	Name	Type	Not Null	Others
1	StaffID 	int(10) Auto Increment	✓	
2	NationalID	varchar(20)	✓	Index: NationalID
3	FirstName	varchar(50)	✓	
4	LastName	varchar(50)	✓	
5	Email	varchar(100)	✓	Index: Email
6	PhoneNumber	varchar(20)	✓	
7	Role	enum	✓	
8	DateHired	date	✓	
9	Password	char(60)	✓	

Indexes

Name	Type	Method	Fields
NationalID	UNIQUE	BTREE	NationalID
Email	UNIQUE	BTREE	Email