

Table 1. Dock

#	PK	FK	Column name	Data type	Default value	Mandatory	Description
1	x		id	int		x	auto-increment
2			name	varchar(40)		x	
3			address	text		x	
4			area	double		x	
5			numOfAvailableBikes	int	0	x	
6			numOfEmptyPoints	int		x	

Table 2. Bike Types

#	PK	FK	Column name	Data type	Default value	Mandatory	Description
1	x		id	bigint		x	auto-increment
2			licensePlate	varchar(10)		x	
3			barCode	char(12)		x	

Table 3. Bike

#	PK	FK	Column name	Data type	Default value	Mandatory	Description
1	x		id	int		x	auto-increment
2			licensePlate	varchar(10)		x	
3			barCode	char(12)		x	
4		x	dockId	int			refers to the dock the current bike is in

5		x	typeId	int		x	refers to the type of the bike
6			price	bigint		x	
7			remainingBattery	int			used for e-bike only

Table 4. RentalInfo

#	PK	FK	Column name	Data type	Default value	Mandatory	Description
1	x		id	int		x	auto-increment
2		x	bikeId	int		x	the rented bike id
3		x	rentDockId	int		x	the dock that the bike initially belongs to
4		x	returnDockId	int		x	the dock that the bike is returned to
5			rentStartTime	timestampz	now()	x	
6			rentEndTime	timestampz			
7			depositAmount	bigint		x	
8			rentalFee	bigint		x	

Table 5. Transaction

#	<i>PK</i>	<i>FK</i>	<i>Column name</i>	<i>Data type</i>	<i>Default value</i>	<i>Mandatory</i>	<i>Description</i>
1	x		id	int		x	auto-increment
2			content	text		x	
3			amount	bigint		x	
4			timeCreated	timestampz	now()	x	