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# PHYSICAL MODEL

FOR PROJECT

MODEL

**Gokarty model fizyczny**

PostgreSQL 12

Version

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Created: 26.11.2022  
Last Modified: 31.12.2022

## **Model Description**

**Entity Report**

Full Name	Primary Key	# Attribu tes
gokarty.app_role	id_app_role	2
gokarty.app_user	id_app_user	7
gokarty.app_user_role	id_app_user, id_app_role	2
gokarty.email_confirmation_token	id_email_confirmation_token	6
gokarty.invoice	id_invoice, period, id_track, id_app_user	4
gokarty.kart	id_kart	3
gokarty.reservation	period, id_track, id_app_user	5
gokarty.reservation_kart	id_kart, period, id_track, id_app_user	4
gokarty.track	id_track	2

**Entity 'gokarty.app\_role'**

Caption	app_role
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**Primary Key 'Unique\_Identifier3'**

Attribute	Type	Parent Entity
id_app_role	PK	-----

**Attributes**

Key	Full Name	Domain	Data Type	N <sup>1)</sup>	U <sup>2)</sup>	C <sup>3)</sup>	D <sup>4)</sup>	Comments
PK	id_app_role		Bigint	YES	NO	NO	NO	
	name		Character varying(30)	YES	NO	NO	NO	

**Relationships**

Full Name	Type	Parent Entity	Child Entity	Card.
FK07	Identifying	gokarty.app_role	gokarty.app_user_role	1:N

**Entity 'gokarty.app\_user'**

Caption	app_user
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**Primary Key 'Unique\_Identifier1'**

Attribute	Type	Parent Entity
id_app_user	PK	-----

**Attributes**

Key	Full Name	Domain	Data Type	N <sup>1)</sup>	U <sup>2)</sup>	C <sup>3)</sup>	D <sup>4)</sup>	Comments
PK	id_app_user		Bigint	YES	NO	NO	NO	
	name		Character varying(40 )	YES	NO	NO	NO	
	phone		gokarty.phone	YES	NO	NO	NO	
	email	Email	Character varying	YES	NO	NO	NO	
	password		Character varying(255)	YES	NO	NO	NO	
	locked		Boolean	YES	NO	NO	YES	
	enabled		Boolean	NO	NO	NO	YES	

**Relationships**

Full Name	Type	Parent Entity	Child Entity	Card.
FK06	Identifying	gokarty.app_user	gokarty.app_user_role	1:N
FK08	Identifying	gokarty.app_user	gokarty.reservation	1:N
FK05	Non-identifying	gokarty.app_user	gokarty.email_confirmation_token	1:N

**Entity 'gokarty.app\_user\_role'**

Caption	app_user_role
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**Primary Key 'Unique\_Identifier9'**

Attribute	Type	Parent Entity
id_app_user	PFK	gokarty.app_user
id_app_role	PFK	gokarty.app_role

**Attributes**

Key	Full Name	Domain	Data Type	N <sup>1)</sup>	U <sup>2)</sup>	C <sup>3)</sup>	D <sup>4)</sup>	Comments
PFK	id_app_user		Bigint	YES	NO	NO	NO	
PFK	id_app_role		Bigint	YES	NO	NO	NO	

**Relationships**

Full Name	Type	Parent Entity	Child Entity	Card.
FK06	Identifying	gokarty.app_user	gokarty.app_user_role	1:N
FK07	Identifying	gokarty.app_role	gokarty.app_user_role	1:N

**Entity 'gokarty.email\_confirmation\_token'**

Caption	email_confirmation_token
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**Primary Key 'Unique\_Identifier2'**

Attribute	Type	Parent Entity
id_email_confirmation_token	PK	-----

**Attributes**

Key	Full Name	Domain	Data Type	N <sup>1)</sup>	U <sup>2)</sup>	C <sup>3)</sup>	D <sup>4)</sup>	Comments
PK	id_email_confirmation_token		Bigint	YES	NO	NO	NO	
	token		Character varying(100)	YES	NO	NO	NO	
	created_at		Timestamp(6)	YES	NO	YES	NO	
	expires_at		Timestamp(6)	YES	NO	NO	NO	
	confirmed_at		Timestamp(6)	NO	NO	NO	NO	
FK	id_app_user		Bigint	YES	NO	NO	NO	

**Relationships**

Full Name	Type	Parent Entity	Child Entity	Card.
FK05	Non-identifying	gokarty.app_user	gokarty.email_confirmation_token	1:N

**Indexes**

Full Name	Attributes	Unique
IX_FK05	id_app_user	NO

**Entity 'gokarty.invoice'**

Caption	invoice
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**Primary Key 'Unique\_Identifier8'**

Attribute	Type	Parent Entity
id_invoice	PK	-----
period	PFK	gokarty.reservation
id_track	PFK	gokarty.reservation
id_app_user	PFK	gokarty.reservation

**Attributes**

Key	Full Name	Domain	Data Type	N <sup>1)</sup>	U <sup>2)</sup>	C <sup>3)</sup>	D <sup>4)</sup>	Comments
PK	id_invoice		Bigint	YES	NO	NO	NO	
PFK	period		Tsrange	YES	NO	NO	NO	
PFK	id_track		Bigint	YES	NO	NO	NO	
PFK	id_app_u ser		Bigint	YES	NO	NO	NO	

**Relationships**

Full Name	Type	Parent Entity	Child Entity	Card.
Relationship1	Identifying	gokarty.reservation	gokarty.invoice	1:1



**Entity 'gokarty.kart'**

Caption	kart
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**Primary Key 'Unique\_Identifier5'**

Attribute	Type	Parent Entity
id_kart	PK	-----

**Attributes**

Key	Full Name	Domain	Data Type	N <sup>1)</sup>	U <sup>2)</sup>	C <sup>3)</sup>	D <sup>4)</sup>	Comments
PK	id_kart		Bigint	YES	NO	NO	NO	
	name		Character varying(100)	YES	NO	NO	NO	
	difficulty_level		gokarty.Difficulty	NO	NO	NO	NO	

**Relationships**

Full Name	Type	Parent Entity	Child Entity	Card.
FK02	Identifying	gokarty.kart	gokarty.reservation_kart	1:N

**Entity 'gokarty.reservation'**

Caption	reservation
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**Primary Key 'PK\_reservation'**

Attribute	Type	Parent Entity
period	PK	-----
id_track	PFK	gokarty.track
id_app_user	PFK	gokarty.app_user

**Attributes**

Key	Full Name	Domain	Data Type	N <sup>1)</sup>	U <sup>2)</sup>	C <sup>3)</sup>	D <sup>4)</sup>	Comments
PK	period		Tsrange	YES	NO	YES	NO	
PFK	id_track		Bigint	YES	NO	NO	NO	
PFK	id_app_user		Bigint	YES	NO	NO	NO	
	number_of_people		Integer	YES	NO	NO	NO	
	cost		Numeric	YES	NO	NO	NO	

**Relationships**

Full Name	Type	Parent Entity	Child Entity	Card.
FK08	Identifying	gokarty.app_user	gokarty.reservation	1:N
FK04	Identifying	gokarty.track	gokarty.reservation	1:N
FK03	Identifying	gokarty.reservation	gokarty.reservation_kart	1:N
Relationship1	Identifying	gokarty.reservation	gokarty.invoice	1:1

**Indexes**

Full Name	Attributes	Unique
IX_EXC01	id_app_user WITH =, id_track WITH =, period WITH &&	NO

**Entity 'gokarty.reservation\_kart'**

Caption	reservation_kart
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**Primary Key 'Unique\_Identifier10'**

Attribute	Type	Parent Entity
id_kart	PFK	gokarty.kart
period	PFK	gokarty.reservation
id_track	PFK	gokarty.reservation
id_app_user	PFK	gokarty.reservation

**Attributes**

Key	Full Name	Domain	Data Type	N <sup>1)</sup>	U <sup>2)</sup>	C <sup>3)</sup>	D <sup>4)</sup>	Comments
PFK	id_kart		Bigint	YES	NO	NO	NO	
PFK	period		Tsrange	YES	NO	NO	NO	
PFK	id_track		Bigint	YES	NO	NO	NO	
PFK	id_app_user		Bigint	YES	NO	NO	NO	

**Relationships**

Full Name	Type	Parent Entity	Child Entity	Card.
FK02	Identifying	gokarty.kart	gokarty.reservation_kart	1:N
FK03	Identifying	gokarty.reservation	gokarty.reservation_kart	1:N

**Indexes**

Full Name	Attributes	Unique
IX_EXC02	id_kart WITH =, period WITH &&	NO

**Entity 'gokarty.track'**

Caption	track
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**Primary Key 'Unique\_Identifier4'**

Attribute	Type	Parent Entity
id_track	PK	-----

**Attributes**

Key	Full Name	Domain	Data Type	N <sup>1)</sup>	U <sup>2)</sup>	C <sup>3)</sup>	D <sup>4)</sup>	Comments
PK	id_track		Bigint	YES	NO	NO	NO	
	length		Integer	YES	NO	NO	NO	

**Relationships**

Full Name	Type	Parent Entity	Child Entity	Card.
FK04	Identifying	gokarty.track	gokarty.reservation	1:N

<sup>1)</sup>Not Null<sup>2)</sup>Unique<sup>3)</sup>Check<sup>4)</sup>Default

### Attribute Report

Full Name	Entity	Domain	Data Type	PK	FK
id_app_role	gokarty.app_role		Bigint	YES	NO
name	gokarty.app_role		Character varying(30)	NO	NO
email	gokarty.app_user	Email	Character varying	NO	NO
enabled	gokarty.app_user		Boolean	NO	NO
id_app_user	gokarty.app_user		Bigint	YES	NO
locked	gokarty.app_user		Boolean	NO	NO
name	gokarty.app_user		Character varying(40)	NO	NO
password	gokarty.app_user		Character varying(255 )	NO	NO
phone	gokarty.app_user		gokarty.pho ne	NO	NO
id_app_role	gokarty.app_user_ro le		Bigint	YES	YES
id_app_user	gokarty.app_user_ro le		Bigint	YES	YES
confirmed_at	gokarty.email_confirm ation_token		Timestamp( 6)	NO	NO
created_at	gokarty.email_confirm ation_token		Timestamp( 6)	NO	NO
expires_at	gokarty.email_confirm ation_token		Timestamp( 6)	NO	NO
id_app_user	gokarty.email_confirm ation_token		Bigint	NO	YES
id_email_confirmation_to ken	gokarty.email_confirm ation_token		Bigint	YES	NO
token	gokarty.email_confirm ation_token		Character varying(100 )	NO	NO
id_app_user	gokarty.invoice		Bigint	YES	YES
id_invoice	gokarty.invoice		Bigint	YES	NO
id_track	gokarty.invoice		Bigint	YES	YES
period	gokarty.invoice		Tsrange	YES	YES
difficulty_level	gokarty.kart		gokarty.Diff	NO	NO

Full Name	Entity	Domain	Data Type	PK	FK
			iculty		
id_kart	gokarty.kart		Bigint	YES	NO
name	gokarty.kart		Character varying(100 )	NO	NO
cost	gokarty.reservation		Numeric	NO	NO
id_app_user	gokarty.reservation		Bigint	YES	YES
id_track	gokarty.reservation		Bigint	YES	YES
number_of_people	gokarty.reservation		Integer	NO	NO
period	gokarty.reservation		Tsrange	YES	NO
id_app_user	gokarty.reservation_k art		Bigint	YES	YES
id_kart	gokarty.reservation_k art		Bigint	YES	YES
id_track	gokarty.reservation_k art		Bigint	YES	YES
period	gokarty.reservation_k art		Tsrange	YES	YES
id_track	gokarty.track		Bigint	YES	NO
length	gokarty.track		Integer	NO	NO

**Attribute 'id\_app\_role'**

Caption	id_app_role
Entity	gokarty.app_role
Primary Key	YES
Foreign Key	NO
Data Type	Bigint
Not Null	YES
Unique	NO

**Attribute Properties**

Identity	YES
Generated Type	BY DEFAULT
Increment by	1
Max Value	NOMAXVALUE
Min Value	NOMINVALUE
Cache	1
Cycle	NO

**Attribute 'name'**

Caption	name
Entity	gokarty.app_role
Primary Key	NO
Foreign Key	NO
Data Type	Character varying(30)
Not Null	YES
Unique	NO

**Attribute 'email'**

Caption	email
Entity	gokarty.app_user
Primary Key	NO
Foreign Key	NO
Domain	Email
Data Type	Character varying
Not Null	YES
Unique	NO

**Check Constraints from Domain**

Check Constraint Name	CheckConstraintEmail
Check	<%ColumnName%> ~ '^+@[a-zA-Z_]+?[a-zA-Z]2,3\$'

**Attribute 'enabled'**

Caption	enabled
Entity	gokarty.app_user
Primary Key	NO
Foreign Key	NO
Data Type	Boolean
Not Null	NO
Unique	NO
Default	false

**Attribute 'id\_app\_user'**

Caption	id_app_user
Entity	gokarty.app_user
Primary Key	YES
Foreign Key	NO
Data Type	Bigint
Not Null	YES
Unique	NO

**Attribute Properties**

Identity	YES
Generated Type	BY DEFAULT
Increment by	1
Max Value	NOMAXVALUE
Min Value	NOMINVALUE
Cache	1
Cycle	NO

**Attribute 'locked'**

Caption	locked
Entity	gokarty.app_user



Primary Key	NO
Foreign Key	NO
Data Type	Boolean
Not Null	YES
Unique	NO
Default	false

**Attribute 'name'**

Caption	name
Entity	gokarty.app_user
Primary Key	NO
Foreign Key	NO
Data Type	Character varying(40)
Not Null	YES
Unique	NO

**Attribute 'password'**

Caption	password
Entity	gokarty.app_user
Primary Key	NO
Foreign Key	NO
Data Type	Character varying(255)
Not Null	YES
Unique	NO

**Attribute 'phone'**

Caption	phone		
Entity	gokarty.app_user		
Primary Key	NO		
Foreign Key	NO		
Dictionary Type	gokarty.phone	Data Type	Character varying(12)
Not Null	YES		
Unique	NO		

**Attribute 'id\_app\_role'**

Caption	id_app_role
Entity	gokarty.app_user_role
Primary Key	YES

Foreign Key	YES	Parent Entity	gokarty.app_role
Data Type	Bigint		
Not Null	YES		
Unique	NO		

**Attribute 'id\_app\_user'**

Caption	id_app_user		
Entity	gokarty.app_user_role		
Primary Key	YES		
Foreign Key	YES	Parent Entity	gokarty.app_user
Data Type	Bigint		
Not Null	YES		
Unique	NO		

**Attribute 'confirmed\_at'**

Caption	confirmed_at		
Entity	gokarty.email_confirmation_token		
Primary Key	NO		
Foreign Key	NO		
Data Type	Timestamp(6)		
Not Null	NO		
Unique	NO		

**Attribute 'created\_at'**

Caption	created_at		
Entity	gokarty.email_confirmation_token		
Primary Key	NO		
Foreign Key	NO		
Data Type	Timestamp(6)		
Not Null	YES		
Unique	NO		

**Check Constraints**

Full Name	CheckConstraint1		
Check	created_at <= CURRENT_DATE		
Full Name	CheckConstraint2		
Check	created_at < expires_at		

**Attribute 'expires\_at'**

Caption	expires_at
Entity	gokarty.email_confirmation_token
Primary Key	NO
Foreign Key	NO
Data Type	Timestamp(6)
Not Null	YES
Unique	NO

**Attribute 'id\_app\_user'**

Caption	id_app_user		
Entity	gokarty.email_confirmation_token		
Primary Key	NO		
Foreign Key	YES	Parent Entity	gokarty.app_user
Data Type	Bigint		
Not Null	YES		
Unique	NO		

**Attribute 'id\_email\_confirmation\_token'**

Caption	id_email_confirmation_token
Entity	gokarty.email_confirmation_token
Primary Key	YES
Foreign Key	NO
Data Type	Bigint
Not Null	YES
Unique	NO

**Attribute Properties**

Identity	YES
Generated Type	BY DEFAULT
Increment by	1
Max Value	NOMAXVALUE
Min Value	NOMINVALUE
Cache	1
Cycle	NO

**Attribute 'token'**

Caption	token
Entity	gokarty.email_confirmation_token
Primary Key	NO
Foreign Key	NO
Data Type	Character varying(100)
Not Null	YES
Unique	NO

**Attribute 'id\_app\_user'**

Caption	id_app_user		
Entity	gokarty.invoice		
Primary Key	YES		
Foreign Key	YES	Parent Entity	gokarty.reservation
Data Type	Bigint		
Not Null	YES		
Unique	NO		

**Attribute 'id\_invoice'**

Caption	id_invoice
Entity	gokarty.invoice
Primary Key	YES
Foreign Key	NO
Data Type	Bigint
Not Null	YES
Unique	NO

**Attribute Properties**

Identity	YES
Generated Type	BY DEFAULT
Increment by	1
Max Value	NOMAXVALUE
Min Value	NOMINVALUE
Cache	1
Cycle	NO

**Attribute 'id\_track'**

Caption	id_track		
Entity	gokarty.invoice		
Primary Key	YES		
Foreign Key	YES	Parent Entity	gokarty.reservation
Data Type	Bigint		
Not Null	YES		
Unique	NO		

**Attribute 'period'**

Caption	period		
Entity	gokarty.invoice		
Primary Key	YES		
Foreign Key	YES	Parent Entity	gokarty.reservation
Data Type	Tsrage		
Not Null	YES		
Unique	NO		

**Attribute 'difficulty\_level'**

Caption	difficulty_level		
Entity	gokarty.kart		
Primary Key	NO		
Foreign Key	NO		
User Data Type	gokarty.Difficulty		
Not Null	NO		
Unique	NO		

**Attribute 'id\_kart'**

Caption	id_kart		
Entity	gokarty.kart		
Primary Key	YES		
Foreign Key	NO		
Data Type	Bigint		
Not Null	YES		
Unique	NO		

**Attribute Properties**

Identity	YES
Generated Type	BY DEFAULT
Increment by	1
Max Value	NOMAXVALUE
Min Value	NOMINVALUE
Cache	1
Cycle	NO

**Attribute 'name'**

Caption	name
Entity	gokarty.kart
Primary Key	NO
Foreign Key	NO
Data Type	Character varying(100)
Not Null	YES
Unique	NO

**Attribute 'cost'**

Caption	cost
Entity	gokarty.reservation
Primary Key	NO
Foreign Key	NO
Data Type	Numeric
Not Null	YES
Unique	NO

**Attribute 'id\_app\_user'**

Caption	id_app_user		
Entity	gokarty.reservation		
Primary Key	YES		
Foreign Key	YES	Parent Entity	gokarty.app_user
Data Type	Bigint		
Not Null	YES		
Unique	NO		

**Attribute 'id\_track'**

Caption	id_track		
Entity	gokarty.reservation		
Primary Key	YES		
Foreign Key	YES	Parent Entity	gokarty.track
Data Type	Bigint		
Not Null	YES		
Unique	NO		

**Attribute 'number\_of\_people'**

Caption	number_of_people		
Entity	gokarty.reservation		
Primary Key	NO		
Foreign Key	NO		
Data Type	Integer		
Not Null	YES		
Unique	NO		

**Attribute 'period'**

Caption	period		
Entity	gokarty.reservation		
Primary Key	YES		
Foreign Key	NO		
Data Type	Tsrage		
Not Null	YES		
Unique	NO		

**Check Constraints**

Full Name	CheckConstraint1		
Check	lower(period) <= CURRENT_DATE		

**Attribute 'id\_app\_user'**

Caption	id_app_user		
Entity	gokarty.reservation_kart		
Primary Key	YES		
Foreign Key	YES	Parent Entity	gokarty.reservation

Data Type	Bigint
Not Null	YES
Unique	NO

**Attribute 'id\_kart'**

Caption	id_kart		
Entity	gokarty.reservation_kart		
Primary Key	YES		
Foreign Key	YES	Parent Entity	gokarty.kart
Data Type	Bigint		
Not Null	YES		
Unique	NO		

**Attribute 'id\_track'**

Caption	id_track		
Entity	gokarty.reservation_kart		
Primary Key	YES		
Foreign Key	YES	Parent Entity	gokarty.reservation
Data Type	Bigint		
Not Null	YES		
Unique	NO		

**Attribute 'period'**

Caption	period		
Entity	gokarty.reservation_kart		
Primary Key	YES		
Foreign Key	YES	Parent Entity	gokarty.reservation
Data Type	Tsrage		
Not Null	YES		
Unique	NO		

**Attribute 'id\_track'**

Caption	id_track		
Entity	gokarty.track		
Primary Key	YES		
Foreign Key	NO		
Data Type	Bigint		
Not Null	YES		



Unique	NO
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### Attribute Properties

Identity	YES
Generated Type	BY DEFAULT
Increment by	1
Max Value	NOMAXVALUE
Min Value	NOMINVALUE
Cache	1
Cycle	NO

### Attribute 'length'

Caption	length
Entity	gokarty.track
Primary Key	NO
Foreign Key	NO
Data Type	Integer
Not Null	YES
Unique	NO

**Key Report**

Type	Full Name	Entity
PK	Unique_Identifier3	gokarty.app_role
PK	Unique_Identifier1	gokarty.app_user
PK	Unique_Identifier9	gokarty.app_user_role
PK	Unique_Identifier2	gokarty.email_confirmation_token
PK	Unique_Identifier8	gokarty.invoice
PK	Unique_Identifier5	gokarty.kart
PK	PK_reservation	gokarty.reservation
PK	Unique_Identifier10	gokarty.reservation_kart
PK	Unique_Identifier4	gokarty.track

**Key 'Unique\_Identifier3'**

Caption	Unique_Identifier3		
Type	Primary Key		
Entity	gokarty.app_role		
Attribute	Order	Foreign Key	
id_app_role	ASC	NO	

**Key 'Unique\_Identifier1'**

Caption	Unique_Identifier1		
Type	Primary Key		
Entity	gokarty.app_user		
Attribute	Order	Foreign Key	
id_app_user	ASC	NO	

**Key 'Unique\_Identifier9'**

Caption	Unique_Identifier9		
Type	Primary Key		
Entity	gokarty.app_user_role		
Attribute	Order	Foreign Key	
id_app_user	ASC	YES	
id_app_role	ASC	YES	

**Key 'Unique\_Identifier2'**

Caption	Unique_Identifier2		
Type	Primary Key		
Entity	gokarty.email_confirmation_token		
Attribute	Order	Foreign Key	
id_email_confirmation_token	ASC	NO	

**Key 'Unique\_Identifier8'**

Caption	Unique_Identifier8		
Type	Primary Key		
Entity	gokarty.invoice		
Attribute	Order	Foreign Key	

id_invoice	ASC	NO
period	ASC	YES
id_track	ASC	YES
id_app_user	ASC	YES

**Key 'Unique\_Identifier5'**

Caption	Unique_Identifier5		
Type	Primary Key		
Entity	gokarty.kart		
Attribute	Order	Foreign Key	
id_kart	ASC	NO	

**Key 'PK\_reservation'**

Caption	PK_reservation		
Type	Primary Key		
Entity	gokarty.reservation		
Attribute	Order	Foreign Key	
period	ASC	NO	
id_track	ASC	YES	
id_app_user	ASC	YES	

**Key 'Unique\_Identifier10'**

Caption	Unique_Identifier10		
Type	Primary Key		
Entity	gokarty.reservation_kart		
Attribute	Order	Foreign Key	
id_kart	ASC	YES	
period	ASC	YES	
id_track	ASC	YES	
id_app_user	ASC	YES	

**Key 'Unique\_Identifier4'**

Caption	Unique_Identifier4		
Type	Primary Key		
Entity	gokarty.track		
Attribute	Order	Foreign Key	
id_track	ASC	NO	

**Index Report**

Full Name	Unique	Entity
IX_FK05	NO	gokarty.email_confirmation_token
IX_EXC01	NO	gokarty.reservation
IX_EXC02	NO	gokarty.reservation_kart

**Index 'IX\_FK05'**

Caption	IX_FK05		
Entity	gokarty.email_confirmation_token		
Unique	NO		
Attribute	Order	Primary Key	Foreign Key
id_app_user	ASC	NO	YES

**Index Properties**

Index Access Method	btree
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**Index 'IX\_EXC01'**

Caption	IX_EXC01
Entity	gokarty.reservation
Unique	NO
Expression	id_app_user WITH =, id_track WITH =, period WITH &&

**Index Properties**

Is Exclusion Constraint	YES
Index Access Method	gist

**Index 'IX\_EXC02'**

Caption	IX_EXC02
Entity	gokarty.reservation_kart
Unique	NO
Expression	id_kart WITH =, period WITH &&

**Index Properties**

Is Exclusion Constraint	YES
Index Access Method	gist

## Relationship Report

Full Name	Type	Parent Entity	Child Entity	Card.
FK02	Identifying	gokarty.kart	gokarty.reservation_kart	1:N
FK03	Identifying	gokarty.reservation	gokarty.reservation_kart	1:N
FK04	Identifying	gokarty.track	gokarty.reservation	1:N
FK05	Non-identifying	gokarty.app_user	gokarty.email_confirmation_token	1:N
FK06	Identifying	gokarty.app_user	gokarty.app_user_role	1:N
FK07	Identifying	gokarty.app_role	gokarty.app_user_role	1:N
FK08	Identifying	gokarty.app_user	gokarty.reservation	1:N
Relationship1	Identifying	gokarty.reservation	gokarty.invoice	1:1

**Relationship 'FK02'**

Caption	FK02		
Type	Identifying	Cardinality	1:N
Mandatory Parent	YES		
Mandatory Child	NO		
Parent Entity	gokarty.kart		
Child Entity	gokarty.reservation_kart		

**Referential Integrity**

	Update	Delete
Parent	NO ACTION	NO ACTION

**Keys**

Key Type	Parent Key	Child Key
Primary Key 'Unique_Identifier5'	id_kart	Unique_Identifier5

**Relation Properties**

Match Type	SIMPLE
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**Relationship 'FK03'**

Caption	FK03		
Type	Identifying	Cardinality	1:N
Mandatory Parent	YES		
Mandatory Child	NO		
Parent Entity	gokarty.reservation		
Child Entity	gokarty.reservation_kart		

**Referential Integrity**

	Update	Delete
Parent	NO ACTION	NO ACTION

**Keys**

Key Type	Parent Key	Child Key
Primary Key 'PK_reservation'	period	PK_reservation



Key Type	Parent Key	Child Key
	id_track	PK_reservation
	id_app_user	PK_reservation

**Relation Properties**

Match Type	SIMPLE
------------	--------

**Relationship 'FK04'**

Caption	FK04		
Type	Identifying	Cardinality	1:N
Mandatory Parent	YES		
Mandatory Child	NO		
Parent Entity	gokarty.track		
Child Entity	gokarty.reservation		

**Referential Integrity**

	Update	Delete
Parent	NO ACTION	NO ACTION

**Keys**

Key Type	Parent Key	Child Key
Primary Key 'Unique_Identifier4'	id_track	Unique_Identifier4

**Relation Properties**

Match Type	SIMPLE
------------	--------

**Relationship 'FK05'**

Caption	FK05		
Type	Non-identifying	Cardinality	1:N
Mandatory Parent	YES		
Mandatory Child	NO		
Parent Entity	gokarty.app_user		
Child Entity	gokarty.email_confirmation_token		

**Referential Integrity**

	Update	Delete
--	--------	--------

	Update	Delete
Parent	NO ACTION	NO ACTION

**Keys**

Key Type	Parent Key	Child Key
Primary Key 'Unique_Identifier1'	id_app_user	Unique_Identifier1

**Relation Properties**

Match Type	SIMPLE
------------	--------

**Relationship 'FK06'**

Caption	FK06		
Type	Identifying	Cardinality	1:N
Mandatory Parent	YES		
Mandatory Child	NO		
Parent Entity	gokarty.app_user		
Child Entity	gokarty.app_user_role		

**Referential Integrity**

	Update	Delete
Parent	NO ACTION	NO ACTION

**Keys**

Key Type	Parent Key	Child Key
Primary Key 'Unique_Identifier1'	id_app_user	Unique_Identifier1

**Relation Properties**

Match Type	SIMPLE
------------	--------

**Relationship 'FK07'**

Caption	FK07		
Type	Identifying	Cardinality	1:N
Mandatory Parent	YES		
Mandatory Child	NO		
Parent Entity	gokarty.app_role		
Child Entity	gokarty.app_user_role		

**Referential Integrity**

	Update	Delete
Parent	NO ACTION	NO ACTION

**Keys**

Key Type	Parent Key	Child Key
Primary Key 'Unique_Identifier3'	id_app_role	Unique_Identifier3

**Relation Properties**

Match Type	SIMPLE
------------	--------

**Relationship 'FK08'**

Caption	FK08		
Type	Identifying	Cardinality	1:N
Mandatory Parent	YES		
Mandatory Child	NO		
Parent Entity	gokarty.app_user		
Child Entity	gokarty.reservation		

**Referential Integrity**

	Update	Delete
Parent	NO ACTION	NO ACTION

**Keys**

Key Type	Parent Key	Child Key
Primary Key 'Unique_Identifier1'	id_app_user	Unique_Identifier1

**Relation Properties**

Match Type	SIMPLE
------------	--------

**Relationship 'Relationship1'**

Caption	Relationship1		
Type	Identifying	Cardinality	1:1
Mandatory Parent	YES		
Mandatory Child	YES		

Parent Entity	gokarty.reservation
Child Entity	gokarty.invoice

**Referential Integrity**

	Update	Delete
Parent	NO ACTION	NO ACTION

**Keys**

Key Type	Parent Key	Child Key
Primary Key 'PK_reservation'	period	PK_reservation
	id_track	PK_reservation
	id_app_user	PK_reservation

**Relation Properties**

Match Type	SIMPLE
------------	--------

**Domain Report**

Full Name	Type	Data Type
Email	Data Type	Character varying
Number of People	Data Type	Smallint

**Domain 'Email'**

Caption	Email
Data Type	Character varying

**Check Constraints**

Check Constraint Name	CheckConstraintEmail
Check	<%ColumnName%> ~ '^+@[a-zA-Z_]+?[a-zA-Z]2,3\$'

**Used in**

Entity	Attribute
gokarty.app_user	email

**Domain 'Number of People'**

Caption	Number of People
Data Type	Smallint

**Check Constraints**

Check Constraint Name	people_number
Check Constraint Rule	people
Check	<%ColumnName%> >= 0

## Dictionary Type Report

Dictionary Type Name
gokarty.phone

**Dictionary Type 'gokarty.phone'**

Caption	phone
Data Type	Character varying(12)
Not Null	NO
Check Constraint Name	phone_number_constraint
Check Constraint Expression	VALUE ~ '^[+]\d{2})?\d{9}\$'

**Used in**

---

Entity Name	Attribute Name
gokarty.app_user	phone



**User Data Type Report**

User Data Type Name	Type of User Data Type
gokarty.Difficulty	Enumerated Type

**Enumerated Type 'gokarty.Difficulty'**

Caption	Difficulty
Enumerated Type List of Quoted Labels	'Easy', 'Medium', 'Hard'

**Used in**

---

Entity Name	Attribute Name
gokarty.kart	difficulty_level

## Check Constraint Rule Report

Full Name
people

**Check Constraint Rule 'people'**

Caption	people
Check Constraint Rule	<%ColumnName%> >= 0

**Check Constraint Report**

Full Name	Type	Object Name
CheckConstraint1	Attribute	created_at (gokarty.email_confirmation_token)
CheckConstraint2	Attribute	created_at (gokarty.email_confirmation_token)
CheckConstraint1	Attribute	period (gokarty.reservation)
CheckConstraintEmail	Domain	Email
people_number	Domain	Number of People

**Check Constraint 'CheckConstraint1'**

Caption	CheckConstraint1
Entity	gokarty.email_confirmation_token
Attribute	created_at

```
created_at <= CURRENT_DATE
```

**Check Constraint 'CheckConstraint2'**

Caption	CheckConstraint2
Entity	gokarty.email_confirmation_token
Attribute	created_at

```
created_at < expires_at
```

**Check Constraint 'CheckConstraint1'**

Caption	CheckConstraint1
Entity	gokarty.reservation
Attribute	period

```
lower(period) <= CURRENT_DATE
```

**Check Constraint 'CheckConstraintEmail'**

Caption	CheckConstraintEmail
Domain	Email

```
<%ColumnName%> ~ '^+@[a-zA-Z_]+?[a-zA-Z]2,3$'
```

**Check Constraint 'people\_number'**

Caption	people_number
Domain	Number of People
Check Constraint Rule	people

```
<%ColumnName%> >= 0
```

**Schema Report**

Schema Name
gokarty

**Schema 'gokarty'**

Caption	gokarty
Authorization (Role Name)	
If Not Exists	NO

**Used in**

Entity Name
gokarty.app_user
gokarty.email_confirmation_token
gokarty.app_role
gokarty.track
gokarty.kart
gokarty.reservation
gokarty.invoice
gokarty.app_user_role
gokarty.reservation_kart
Dictionary Type Name
gokarty.phone
User Data Type Name
gokarty.Difficulty



## User Group Report

Full Name
db_authenticator
db_owner
db_privilegeduser
db_reader
db_user
user_admin
user_client
user_employee

**User Group 'db\_authenticator'**

Caption	db_authenticator
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**Permissions: Entities**

Entity Name	Grantor	SELE CT	INSE RT	UPD ATE	DELE TE	REFE REN CES	TRIG GER	TRU NCA TE
gokarty.app_user	db_user	Gran t	---	---	---	---	---	---
gokarty.email_confirmat ion_token	db_user	Gran t	---	---	---	---	---	---

**User Group 'db\_owner'**

Caption	db_owner
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**Membership**

User Name or User Group Name
user_admin

**Permissions: Entities**

Entity Name	Grantor	SELE CT	INSE RT	UPD ATE	DELE TE	REFE REN CES	TRIG GER	TRU NCA TE
gokarty.app_role		Gran t	Gran t	Gran t	Gran t	Gran t	Gran t	Gran t
gokarty.app_user_role		Gran t	Gran t	Gran t	Gran t	Gran t	Gran t	Gran t
gokarty.email_confirmat ion_token	db_user	Gran t	Gran t	Gran t	Gran t	Gran t	Gran t	Gran t
gokarty.app_user	db_user	Gran t	Gran t	Gran t	Gran t	Gran t	Gran t	Gran t
gokarty.invoice	db_user	Gran t	Gran t	Gran t	Gran t	Gran t	Gran t	Gran t
gokarty.track	db_user	Gran t	Gran t	Gran t	Gran t	Gran t	Gran t	Gran t
gokarty.reservation	db_user	Gran	Gran	Gran	Gran	Gran	Gran	Gran

Entity Name	Grantor	SELE CT	INSE RT	UPD ATE	DELE TE	REFE REN CES	TRIG GER	TRU NCA TE
		t	t	t	t	t	t	t
gokarty.reservation_kart		Gran t	Gran t	Gran t	Gran t	Gran t	Gran t	Gran t
gokarty.kart	db_user	Gran t	Gran t	Gran t	Gran t	Gran t	Gran t	Gran t

### User Group 'db\_privilegeduser'

Caption	db_privilegeduser
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### Membership

User Name or User Group Name
user_employee

### Permissions: Entities

Entity Name	Grantor	SELE CT	INSE RT	UPD ATE	DELE TE	REFE REN CES	TRIG GER	TRU NCA TE
gokarty.invoice	db_user	Gran t	---	---	---	---	---	---
gokarty.app_user	db_user	Gran t	Gran t	Gran t	---	---	---	---
gokarty.reservation	db_user	Gran t	Gran t	Gran t	---	---	---	---
gokarty.track	db_user	Gran t	Gran t	Gran t	---	---	---	---
gokarty.kart	db_user	Gran t	Gran t	Gran t	---	---	---	---
gokarty.email_confirmation_token	db_user	Gran t	---	---	---	---	---	---

### User Group 'db\_reader'

Caption	db_reader
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### Permissions: Entities

Entity Name	Grantor	SELECT	INSERT	UPDATE	DELETE	REFERENCES	TRIGGER	TRUNCATE
gokarty.app_user		Grant	---	---	---	---	---	---
gokarty.email_confirmation_token		Grant	---	---	---	---	---	---
gokarty.app_role		Grant	---	---	---	---	---	---
gokarty.app_user_role		Grant	---	---	---	---	---	---
gokarty.invoice		Grant	---	---	---	---	---	---
gokarty.reservation		Grant	---	---	---	---	---	---
gokarty.track		Grant	---	---	---	---	---	---
gokarty.reservation_kart		Grant	---	---	---	---	---	---
gokarty.kart		Grant	---	---	---	---	---	---

### User Group 'db\_user'

Caption	db_user
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### Membership

User Name or User Group Name
user_client

### Permissions: Entities

Entity Name	Grantor	SELECT	INSERT	UPDATE	DELETE	REFERENCES	TRIGGER	TRUNCATE
gokarty.invoice		Grant	---	---	---	---	---	---
gokarty.app_user		Grant	---	---	---	---	---	---
gokarty.reservation		Grant	---	---	---	---	---	---
gokarty.track		Grant	---	---	---	---	---	---

Entity Name	Grantor	SELECT	INSERT	UPDATE	DELETE	REFERENCES	TRIGGER	TRUNCATE
		t						
gokarty.kart		Grant	---	---	---	---	---	---
gokarty.email_confirmation_token		Grant	---	---	---	---	---	---

**User Group 'user\_admin'**

Caption	user_admin
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**User Group Properties**

Login	YES
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**Members**

User Name or User Group Name
db_owner

**User Group 'user\_client'**

Caption	user_client
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**User Group Properties**

Login	YES
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**Members**

User Name or User Group Name
db_user

**User Group 'user\_employee'**

Caption	user_employee
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**Members**

User Name or User Group Name
db_privilegeduser

## Statistic Information

Entities	9	Entity Check Constraints	0		
Attributes	35	Attribute Check Constrains	3		
Domains	2	Domain Check Constrains	2		
Dictionary Types	1				
User Data Types	1				
Relationships	8	Identifying	7	Non-identifying	1
Indexes	3				
Keys	9	Primary Keys	9	Alternate Keys	0
Entity Triggers	0				
Views	0				
View Relationships	0				
View Triggers	0				
Rewrite Rules	0	Entity Rewrite Rule Name	0	View Rewrite Rule Name	0
Functions	0				
Procedures	0				
Defaults	0				
Check Constraint Rules	1				
Aggregates	0				
Materialized Views	0				
Sequences	0				
Tablespaces	0				
Schemas	1				
Collations	0				
Foreign Servers	0				
User Groups	8				
Notes	0				