

# Design of the database

Andrii Yanechko

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# 1 Program Description

This is a database for ordering a ticket on the events.

## 2 Design database for CDP program

Main entities of the database are:

- User;
- Event;
- Ticket.

### 2.1 User entity

User entity, illustrated on a figure 2.1, represents user in the database and have several fields:

Name	Type	Description	Constraints
id	<i>integer</i>	unique identifier of the user	<b>Primary Key</b>
name	<i>text</i>	name of the user	<b>Unique</b>
email	<i>text</i>	email of the user	<b>Unique</b>
created_date	<i>text</i>	date of instance creation in the UTC	N/A
updated_date	<i>text</i>	date of the last update in the UTC	

Indexes for user entity:

Name	Type
name	<i>B-tree</i>
email	<i>B-tree</i>

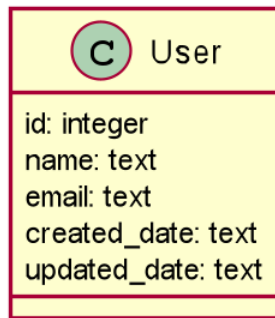


Figure 1: User representation in the database

## 2.2 Event entity

Event entity, illustrated on a figure 2 , represents event in the database and have several fields:

Name	Type	Description	Constraints
id	<i>integer</i>	unique identifier of the event	<b>Primary Key</b>
title	<i>text</i>	title of the event	<b>Unique</b>
date	<i>text</i>	start date of the event in the UTC	
created_date	<i>text</i>	date of instance creation in the UTC	<b>N/A</b>
updated_date	<i>text</i>	date of the last update in the UTC	

Indexes for event entity:

Name	Type
title	<i>B-tree</i>
date	<i>B-tree</i>

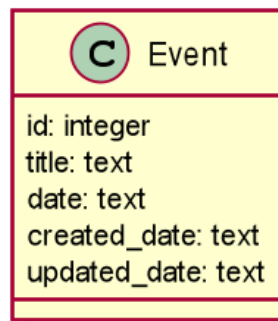


Figure 2: Event representation in the database

## 2.3 Ticket entity

Ticket entity, illustrated on a figure 3 , represents ticket in the database and have several fields:

Name	Type	Description	Constraints	
id	integer	unique identifier of the ticket	Primary Key	
user_id	integer	id of the user which has ordered this ticket	Secondary Key	
event_id	integer	id of the event on which ticket is booked	Secondary Key	Unique
place	integer	number of place of the ticket	N/A	
category	string	category of the ticket	N/A	
created_date	string	date of instance creation in the UTC		
updated_date	string	date of the last update in the UTC		

Indexes for ticket entity:

Name	Type
event_id	<i>B-tree</i>
user_id	<i>B-tree</i>
category	<i>B-tree</i>

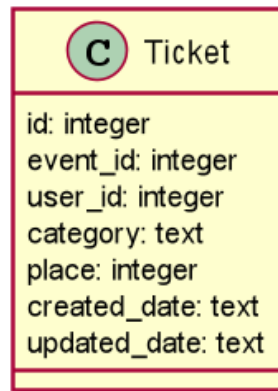


Figure 3: Ticket representation in the database