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OpenRide Database Schema

This document contains information about all the tables of the “OpenRideDB” and their fields. It is also used to mark changes. It should contain the pre- or actual state of the database. That means changes of the document, such as type changes a.s.o., shall be realized on database-level afterwards. It should also be used to review the description of certain fields for a better understanding of the system of each developer. The document version should reflect the according backup-file of the database (see SVN: src\OpenRide-DB-Dump).

**Version: 20-01-10**

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# Notes referring fields by table

## Description of table: accounthistory

This table holds information on the payments account of a customer.

|  |  |
| --- | --- |
|  | **Accounthistory** |
|  | **Fieldname** | **Description** | **Needed** | **Type** |
| **1** | account\_ammount |  |  | Double precision |
| **2** | account\_action | Account actions are: payments, withdrawals, recharges. |  | Character varying(255) |
| **3** | cust\_id | Customer-Entity Identifier, is generated when creating new <type>CustomerEntity</type> | x | Integer NOT NULL |
| **4** | account\_timestamp |  |  | Timestamp without timezone NOT ZERO |

## Description of table: cardetails

This table holds information on the car of a customer.

|  |  |
| --- | --- |
|  | **Cardetails** |
|  | **Fieldname** | **Description** | **Needed** | **Type** |
| **1** | cardet\_id | Cardetails-Entity Identifier, is generated when creating new<type>CardetailsEntity</type> | x | Serial NOT NULL |
| **2** | cardet\_buildyear | The buildyear of the car. |  | smallint |
| **3** | cardet\_colour | The color of the car. |  | Character varying(255) |
| **4** | cardet\_brand | The brand of the car. |  | Character varying(255) |
| **5** | cardet\_plateno |  |  | Character varying(255) |
| **6** | cust\_id | Customer-Entity Identifier, is generated when creating new <type>CustomerEntity</type> | x | Integer NOT NULL |

## Description of table: customer

This table holds information on a customer.

|  |  |
| --- | --- |
|  | **Customer** |
|  | **Fieldname** | **Description** | **Needed** | **Type** |
| **1** | cust\_id | Customer-Entity Identifier, is generated when creating new <type>CustomerEntity</type> | x | Integer NOT NULL |
| **2** | cust\_addr\_zipcode | The zip code of the customers place of domicile. | x | Integer |
| **3** | cust\_addr\_city | The city where the customer lives at. | x | Character varying(255) |
| **4** | cust\_nickname | The nickname the customer uses within the system. | x | Character varying(255) |
| **5** | cust\_driverpref\_age | The preferred age of drivers, if the customer is a passenger. | x | Integer |
| **6** | cust\_firstname | The first name of the customer. | x | Character varying(255) |
| **7** | cust\_driverpref\_gender | The preferred gender of drivers, if the customer is a passenger.  Allowed values : {‘-‘, ‘f’} | x | Character(1) |
| **8** | cust\_dateofbirth | The date of birth of the customer. | x | Date |
| **9** | cust\_driverpref\_musictaste | The preferred music taste of the driver, if the customer is a passenger. |  | Character varying(255) |
| **10** | cust\_mobilephoneno | The customers’ mobile phone number. | x | Character varying(255) |
| **11** | cust\_riderpref\_age | The preferred age of the passenger, if the customer is a driver. | x | Integer |
| **12** | cust\_email | The customers’ e-mail address. | x | Character varying(255) |
| **13** | cust\_riderpref\_gender | The preferred gender of the passenger, if the customer is a driver.  Allowed values : {‘-‘, ‘f’} | x | Character(1) |
| **14** | cust\_issmoker | True, if the customer is a smoker, otherwise false. |  | Boolean |
| **15** | cust\_riderpref\_musictaste | The preferred music taste of the passenger, if the customer is a driver. |  | Character varying(255) |
| **16** | cust\_postident |  |  | Boolean |
| **17** | cust\_bank\_account |  |  | Integer |
| **18** | cust\_bank\_code |  |  | Integer |
| **19** | cust\_lastname | The last name of the customer. | x | Character varying(255) |
| **20** | cust\_presencemssg | A message that shows the actual status of the customer. | x | Character varying(255) |
| **21** | cust\_fixedphoneno | The phone number of the customer. | x | Character varying(255) |
| **22** | cust\_registrdate | The date that the customer first registered to the system. | x | Timestamp without timezone |
| **23** | cust\_licensedate | Driver’s license issuing date |  | Date |
| **24** | cust\_account\_balance |  |  | Double precision |
| **25** | cust\_passwd | The password of the customer, that is needed to login to his view of the system. | x | Character varying(255) |
| **26** | cust\_profilepic | A picture that can be integrated into the view of a customers profile. | x | Character varying(255) |
| **27** | cust\_gender | The gender of the customer. (m=masculine, f=feminine) | x | Character(1) |
| **28** | cust\_addr\_street | The street of the customers’ place of domicile. |  | Character varying(255) |
| **29** | cust\_driverpref\_smoker | This field marks whether the customer preferres the driver being a smoker or not, if the customer is a passenger.  Allowed values : {‘y‘, ‘n’, ‘-‘} | x | Character(1) |
| **30** | cust\_riderpref\_smoker | This field marks whether the customer preferres the passenger being a smoker or not, if the customer is a driver.  Allowed values : {‘y‘, ‘n’, ‘-‘} | x | Character(1) |
| **31** | cust\_session\_id | The last sessionId of the customer, which can be set, when the user logs in to the system. |  | Integer |
| **32** | Is\_logged\_in | This field marks whether the customer is logged in to the system at the moment. |  | Boolean |
| **33** | cust\_group |  |  | character varying(255) |

## Description of table: drive\_route\_point

Each column represents a route-point of a drivers’ route. So each route of a driver is represented by multiple rows here.

|  |  |
| --- | --- |
|  | **drive\_route\_point** |
|  | **Fieldname** | **Description** | **Needed** | **Type** |
| **1** | drive\_id | DriverUndertakesRide Foreign key | x | Integer NOT NULL |
| **2** | route\_idx | Routepoints are numbered from source to target starting at 0 | x | Integer NOT NULL |
| **3** | coordinate | Lon / Lat coord | x | Point NOT NULL |
| **4** | expected\_arrival | Expected time driver will be at coordinate | x | Timestamp NOT NULL |
| **5** | seats\_available | >=0 | x | Integer NOT NULL |
| **6** | Coordinate\_c | Carthesian Coordinate (Not mapped to Entity)  Updates and Inserts are handled by trigger | x | Geometry |
| **7** | distance\_to\_source | Distance to drivers first route point in meters | x | Double Precision |

## Description of table: driverundertakesride

This table holds information on the ride that a driver is offering.

|  |  |
| --- | --- |
|  | **driverundertakesride** |
|  | **Fieldname** | **Description** | **Needed** | **Type** |
| **1** | ride\_id |  | x | Integer NOT NULL |
| **2** | ride\_weekday |  |  | Character varying(255) |
| **3** | ride\_series\_id |  |  | Integer |
| **4** | ride\_starttime |  | x | Timestamp without timezone |
| **5** | ride\_comment |  |  | Character varying(255) |
| **6** | ride\_acceptable\_detour\_in\_min |  | x\* | Integer |
| **7** | ride\_offeredseats\_no |  | x | Integer |
| **8** | cust\_id | Customer-Entity Identifier, is generated when creating new <type>CustomerEntity</type> | x | Integer |
| **9** | ride\_startpt |  | x | Point |
| **10** | ride\_endpt |  | x | Point |
| **11** | ride\_currpos |  | x | Point |
| **12** | startpt\_addr | This field contains the street name + house number of the startpoints address. | x | Character varying(255) |
| **13** | endpt\_addr | This field contains the street name + house number of the endpoints address. | x | Character varying(255) |
| **14** | ride\_acceptable\_detour\_in\_percent | \*At least one of the three detour thresholds must be not null | x\* | Integer |
| **15** | ride\_acceptable\_detour\_in\_km |  | x\* | Integer |
| **16** | ride\_route\_point\_distance\_meters |  |  | Double Precision NOT NULL |

## Description of table: favoritepoint

This table holds information on the favorite departure and target points of a rider or a driver.

|  |  |
| --- | --- |
|  | **favoritepoint** |
|  | **Fieldname** | **Description** | **Needed** | **Type** |
| **1** | favpt\_point | Comma-separated latitude and longitude of one of a customers’ favorite points. | x | Character varying(255) NOT NULL |
| **2** | cust\_id |  | x | Integer NOT NULL |
| **3** | favpt\_frequency | May be used to track usage of a favpt |  | Integer NOT NULL |
| **4** | favpt\_displayname | User-specified display name for a favpt (e.g., “home”/”work”/…) |  | Character varying(255) |
| **5** | favpt\_address | Full street address, including zip code, city and county (as returned by gmaps API) |  | Character varying(255) |
| **6** | favpt\_id | Unique ID (sequence) | x | Integer NOT NULL |

## Description of table: geometry\_columns

Table is created by postgis extensions by default. Postgis servers some wrapper functions for adding and removing columns of type ‘geometry’ which use this table. If we don’t use these functions, we can remove this table.

|  |  |
| --- | --- |
|  | **geometry\_columns** |
|  | **Fieldname** | **Description** | **Needed** | **Type** |
| **1** | f\_table\_catalog |  |  | Character varying(256) NOT NULL |
| **2** | f\_table\_schema |  |  | Character varying(256) NOT NULL |
| **3** | f\_table\_name |  |  | Character varying(256) NOT NULL |
| **4** | f\_geometry\_column |  |  | Character varying(256) NOT NULL |
| **5** | coord\_dimension |  |  | integer NOT NULL |
| **6** | srid |  |  | Integer NOT NULL |
| **7** | type |  |  | Character varying(30) NOT NULL |

## Description of table: match

Each column represents a route-point of a drivers’ route. So each route of a driver is represented by multiple rows here.

|  |  |
| --- | --- |
|  | **match** |
|  | **Fieldname** | **Description** | **Needed** | **Type** |
| **1** | riderroute\_id | Id of the search |  | Integer NOT NULL |
| **2** | ride\_id | Id of the offer |  | Integer NOT NULL |
| **3** | match\_shared\_distance\_meters |  |  | Double |
| **4** | match\_detour\_meters |  |  | Double |
| **5** | match\_expected\_start\_time |  |  | Timestamp |
| **6** | match\_drive\_remaining\_distance\_meters |  |  | Double |
| **7** | match\_price\_cents |  |  | Integer |
| **8** | driver\_change | The date when the related driver changed the state last time. |  | Timestamp |
| **9** | rider\_change | The date when the related rider changed the state last time. |  | Timestamp |
| **10** | driver\_access | The date when the related driver accessed the match last time. |  | Timestamp |
| **11** | rider\_access | The date when the related rider accessed the match last time. |  | Timestamp |
| **12** | driver\_state | The state the driver gave this match. |  | Integer |
| **13** | rider\_state | The state the rider gave this match. |  | Integer |

## Description of table: route\_point

Each column represents a route-point of a drivers’ route. So each route of a driver is represented by multiple rows here.

|  |  |
| --- | --- |
|  | route\_point |
|  | **Fieldname** | **Description** | **Needed** | **Type** |
| **1** | ride\_id | DriverUndertakesRide Foreign key | x | Integer NOT NULL |
| **2** | route\_idx | Routepoints are numbered from source to target starting at 0 | x | Integer NOT NULL |
| **3** | longitude | Lon / Lat coord | x | Point NOT NULL |
| **4** | latitude | Expected time driver will be at coordinate | x | Timestamp NOT NULL |
| **5** | riderroute\_id | >=0 | x | Integer |
| **6** | is\_required | Carthesian Coordinate (Not mapped to Entity)  Updates and Inserts are handled by trigger | x | geometry NOT NULL |

## Description of table: registration\_pass

This table holds information on the registration passcodes identifying new site visitors as being invited to sign up for a user account.

|  |  |
| --- | --- |
|  | **registration\_pass** |
|  | **Fieldname** | **Description** | **Needed** | **Type** |
| **1** | id | Unique ID (sequence) | x | Integer NOT NULL |
| **2** | passcode | Unique code to be supplied upon registration (“invitation code”) |  | Character varying(32) NOT NULL |
| **3** | creation\_date | The date this code was created |  | Date NOT NULL |
| **4** | usage\_date | The date this code was used to create an account |  | Date |
| **5** | cust\_id | Customer-Entity Identifier, is generated when creating new <type>CustomerEntity</type> | x | Integer |

## Description of table: riderundertakesride

This table holds information on a ride that a rider is searching or on a ride that the rider undertook.

|  |  |
| --- | --- |
|  | **riderundertakesride** |
|  | **Fieldname** | **Description** | **Needed** | **Type** |
| **1** | riderroute\_id | Id of the search. | x | Integer NOT NULL |
| **2** | ride\_id | Id of the offer. | x | Integer |
| **3** | starttime\_latest |  |  | Timestamp without timezone |
| **4** | timestamprealized | The date and time a ride has been finished and is ready to be rated |  | Timestamp without timezone |
| **5** | price |  |  | Double precision |
| **6** | cust\_id | Customer-Entity Identifier, is generated when creating new <type>CustomerEntity</type> | x | Integer |
| **7** | no\_passengers |  |  | Integer |
| **8** | timestampbooked |  |  | Timestamp without timezone |
| **9** | account\_timestamp |  |  | Timestamp without timezone |
| **10** | starttime\_earliest |  |  | Timestamp without timezone |
| **11** | startpt |  | x | Point |
| **12** | endpt |  | x | Point |
| **13** | startpt\_addr | This field contains the street name + house number of the startpoints address. | x | Character varying(255) |
| **14** | endpt\_addr | This field contains the street name + house number of the endpoints address. | x | Character varying(255) |
| **15** | givenrating | Rider’s rating for their driver (1/0/-1). |  | Smallint |
| **16** | givenrating\_date | The date the driver submitted their rating. |  | Timestamp without timezone |
| **17** | giverating\_comment | The rider’s comment on their rating. |  | Character varying(255) |
| **18** | receivedrating | Driver’s rating for their rider (1/0/-1). |  | Smallint |
| **19** | receivedrating\_comment | The driver’s comment on their rating. |  | Character varying(255) |
| **20** | receivedrating\_date | The date the driver submitted their rating. |  | Timestamp without timezone |
| **21** | startpt\_c | carthesian coordinate of startpt (not mapped by entity -> trigger) | x | Geometry |
| **22** | endpt\_c | carthesian coordinate of endpt (not mapped by entity -> trigger) | x | Geometry |
| **23** | comment |  | x | character varying(255) |

## Description of table: sequence

This table is needed for the Annotation type: @GeneratedValue(strategy=GenerationType.AUTO). It could also be replaced by the use of postgres serial function.

(Comment: Using JPA it is not possible to persist Entites without an ID, so one has to either set it manually or let it be generated by the mentioned annotation. This annotation only supports the usage of this table, which should not be a Problem.

That is why using serial as a type for auto-generation of primarykeys is not an option.)

|  |  |
| --- | --- |
|  | **sequence** |
|  | **Fieldname** | **Description** | **Needed** | **Type** |
| **1** | seq\_name |  | x | Character varying(50) NOT NULL |
| **2** | seq\_count |  | x | Numeric(38) |

## Description of table: spatial\_ref\_sys

This table is created by postgis extensions by default. It is in use since projection of coordinate relies on this table.

|  |  |
| --- | --- |
|  | **spatial\_ref\_sys** |
|  | **Fieldname** | **Description** | **Needed** | **Type** |
| **1** | srid |  |  | Integer NOT NULL |
| **2** | auth\_name |  |  | Character varying(256) |
| **3** | auth\_srid |  |  | Integer |
| **4** | srtext |  |  | Character varying(2048) |
| **5** | proj4text |  |  | Character varying(2048) |