

REFLOW – FOOD MARKET 4.0 DB

DB TYPE: Mongo DB

Entities: 7

Entity: Boxes

Description: boxes to store goods (fruits and vegetables)

Fields:

1. _id: unique identifier
2. code: label on the box
3. color: color of the box
4. tare: tare of the box
5. key1: first rfid key
6. key2: second rfid key
7. location: a value between "unknown", "stall", "depot"
8. updated: time and date stamp of the last update

Example:

```
_id: ObjectId("61f288071dca882d773f9562")
code: "A02"
key1: "332EFE1B181089C165AD1C7F"
key2: "330EFE1B181089C165AD1C7F"
color: "Grigia"
tare: 1.64
location: "stall"
updated: 2022-01-27T11:55:16.106+00:00
```

Entity: Countries

Description: countries of goods provenience

Fields:

- 1 _id: unique identifier
- 2 code: country code 3 letters
- 3 code2: country code 2 letters
- 4 id: country code 3 letters
- 5 name: name in italian
- 6 name_en: name in English
- 7 taxcode: country tax code

Example:

```
_id: ObjectId("61878d6e84f86508faf723b9")
id: "AFG"
name: "Afghanistan"
name_en: "Afghanistan"
taxcode: "Z200"
code: "AFG"
code2: "AF"
```

Entity: Good Categories

Description: categories of goods

Fields:

- 1 _id: unique identifier
- 2 name: quality type (I, II, Extra)
- 3 description: description of the category

Full Example:

```
_id: ObjectId("6187905730fa9a6baa6b5ed4")
name: "I"
description: "per i prodotti di buona qualità; in questo caso sono tollerati lievi d..."
```

```
_id: ObjectId("6187905730fa9a6baa6b5ed5")
name: "II"
description: "per i prodotti di qualità mercantile, per i quali sono tollerati i dif..."
```

```
_id: ObjectId("6187905730fa9a6baa6b5ed6")
name: "Extra"
description: "per i prodotti privi di difetti, di qualità superiore"
```

Entity: Goods

Description: good (fruit or vegetable)

Fields:

- 1 _id: unique identifier
- 2 id: name in english
- 3 singular: singular name in italian
- 4 plural: plural name in italian

Example:

```
_id: ObjectId("61868ab8b5650329e1a2c40f")
id: "garlic"
singular: "aglio"
plural: "aglio"
```

Entity: Flow

Description: boxes movement between locations ("unknown", "stall", "depot")

Fields:

1. _id: unique identifier
2. box_code: label on the box referenced to entity box and field code
3. location_from: location from which to box is moving, can a value between "unknown", "stall", "depot"
4. location_to: location to which a box is moving, can be a value between "unknown", "stall", "depot"
5. timestamp: time and date stamp of the last update

Example:

```
_id: ObjectId("61d97eb6154c067e98268877")
box_code: "G-11"
location_from: "unknown"
location_to: "stall"
timestamp: 2022-01-08T12:08:22.641+00:00
__v: 0
```

```
_id: ObjectId("61d97ed7154c067e98268890")
box_code: "G-12"
location_from: "stall"
location_to: "stall"
timestamp: 2022-01-08T12:08:55.009+00:00
__v: 0
```

```
_id: ObjectId("61d97edb154c067e98268898")
box_code: "G-13"
location_from: "stall"
location_to: "stall"
timestamp: 2022-01-08T12:08:59.206+00:00
__v: 0
```

Entity: Transactions

Description: movement of goods inside boxes

Fields:

- 1 _id: unique identifier
- 2 box_code: label on the box referenced to entity box and field code
- 3 good_id: id of the good referenced to entity good and field id
- 4 good_weight: weight of the good transferred
- 5 good_category: category of the good transferred
- 6 good_origin: country origin of the good transferred
- 7 good_price: price of the good transferred
- 8 timestamp: time and date stamp of the last update

Example:

```
_id: ObjectId("61d5aef526771a2516407fe2")
box_code: "G-01"
box_tare: 0.1
good_id: "garlic"
good_weight: 3
good_category: "II"
good_origin: "AFG"
good_price: 2
timestamp: 2022-01-05T14:45:09.019+00:00
__v: 0
```

```
_id: ObjectId("61d5af0526771a2516407fed")
box_code: "G-01"
good_id: "garlic"
good_weight: 2
good_category: "II"
good_origin: "AFG"
good_price: 2
timestamp: 2022-01-05T14:45:25.103+00:00
__v: 0
```

Entity: Sales

Description: sales from the store

Fields:

- 1 _id: unique identifier
- 2 number: bill number
- 3 total: total sell price
- 4 items: array of "item"
- 5 timestamp: time and date stamp of the last update

Fields of "item":

- 1 _id: unique identifier
- 2 id: id of the good referenced to entity good and field id
- 3 weight: good weight
- 4 cost: good cost per kg
- 5 category: good category
- 6 origin: good origin

Example:

```
_id: ObjectId("61d825550acb5c2d6f4e39df")
number: 3
total: 12
items: Array
  0: Object
    id: "garlic"
    weight: 5
    cost: 2
    category: "I"
    origin: "AFG"
    _id: ObjectId("61d825550acb5c2d6f4e39e0")
  1: Object
    id: "orange"
    weight: 1
    cost: 2
    category: "I"
    origin: "AFG"
    _id: ObjectId("61d825550acb5c2d6f4e39e1")
timestamp: 2022-01-07T11:34:31.608+00:00
```