

ZidShip Couriers Framework

Task Documentation
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Introduction :

ZidShip Courier is a framework that defines a unified interface for the rest of the ZidShip system to

communicate through and allows to generic integrate more couriers. The project contains a lot features like :

- 1- Dashboard with bar chart to measure number packages with same status, when clicking on the bar chart the system will redirect to packages list with status that user clicked on.
- 2- Export packages list, Waybills in CSV format
- 3- Each package Status implemented with different color for ease of use.
- 4- Add / Edit / Delete Packages, Couriers, Status, Clients.
- 5- Track each package , update and display the tracking history
- 6- Tracking could be by using the implemented script or by using external script (by adding path of the script and the system will run it then return the results)
- 7- The implemented tracking script is doing HTTP calls and retries
- 8- Expose the API as a web service.
- 9- Implement SMSA Package tracking as a proof of concept (you can find it in the system with track number = 290126681401)
- 10- Admin can cancel package, couriers

Tracking feature :

- 1- Create the Courier with the following fields
 - a) Status Mapping : JSON dictionary with statuses in the system and corresponding status in the Courier website
 - b) Track Details Div: JSON dictionary with initial key values - (status div / date div/ time div / location div) are same fields
 - i. Tag : element tag (div/ span/ h4 / ..)
 - ii. Attribute : attribute in the tag (class / id / ..)
 - iii. Value : value of the attribute
 - iv. Child : child of the tag (span / div / ...)
 - c) Tracking URL : courier website tracking url
 - d) Outer script path : dotted path of the script
 - e) If the courier is active or not (canceling courier if from here)
 - f) Automatic url : automate tracking script run and update the packages status (TODO)
 - g) Invalid clause : invalid sentence in case of invalid tracking number or data
- 2- Click on track action from the actions in Package table
- 3- The script will run, return with the tracking history, and update the package status with status mapping dictionary.

HTML form

Raw data

Status mapping

```
{
  "Cancelled": ""
}
```

Track details div

```
{
  "attribute": ""
}
```

Status div

```
{
  "attribute": ""
}
```

Date div

```
{
  "attribute": ""
}
```

Time div

```
{
  "attribute": ""
}
```

Location div

```
{
  "attribute": ""
}
```

Name

Tracking url

Outer script path

In case of outer script needed

Is active

☐

The courier will not be available if is_active=False

Automatic run

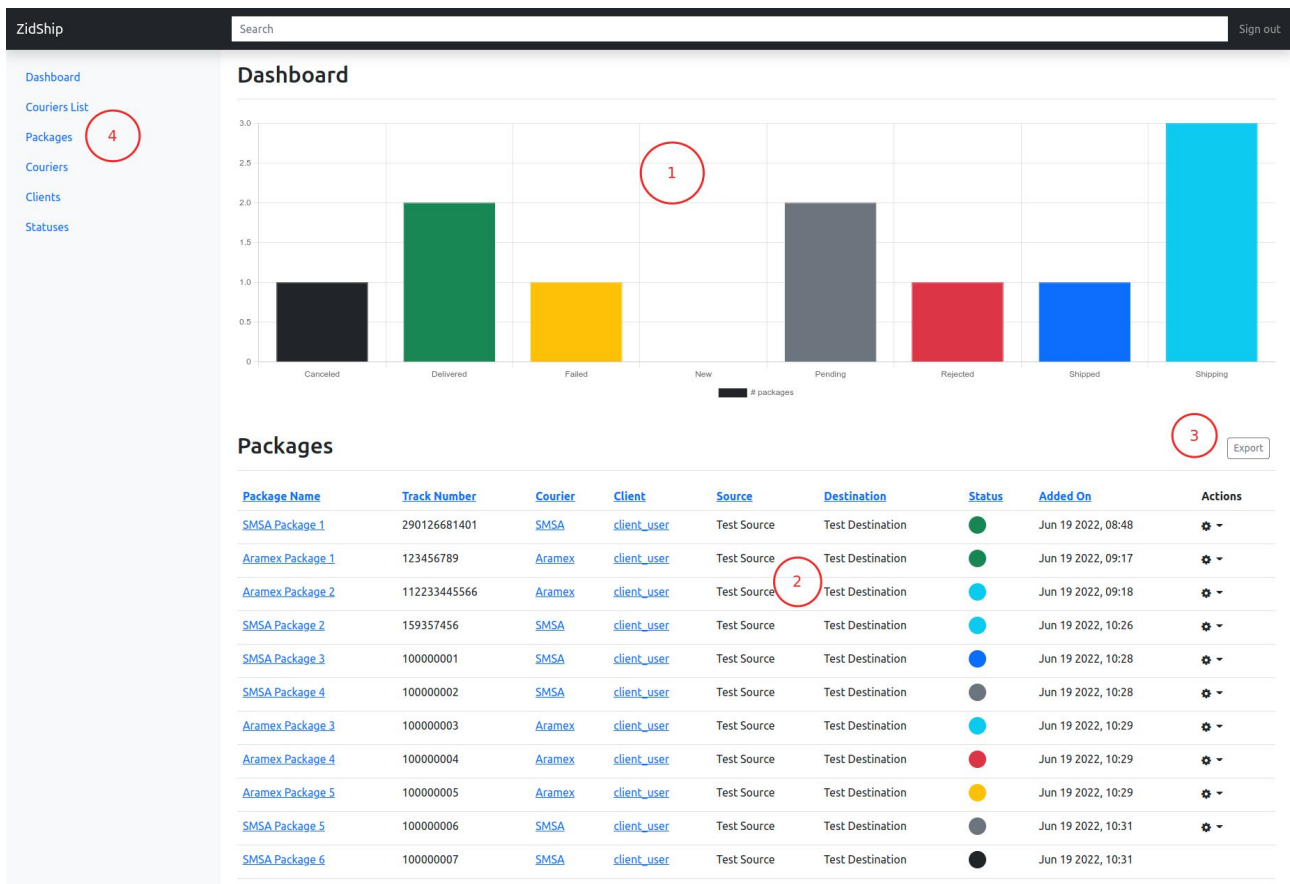
☐

To run with celery every 12 hours

Invalid clause

POST

Home Page



1- Bar Chart with to measure number packages with same status. When clicking on one of them the system will redirect to Package list with the same status that chart presenting. For example, there are 3 packages with “Shipping” status. When clicking on the bar the system redirected to the following :

ZidShip Search Sign out

Shipping Packages























Export

Package Name	Track Number	Courier	Client	Source	Destination	Status	Added On	Actions
Aramex Package 2	112233445566	Aramex	client_user	Test Source	Test Destination	Blue	Jun 19 2022, 09:18	⚙️
SMSA Package 2	159357456	SMSA	client_user	Test Source	Test Destination	Blue	Jun 19 2022, 10:26	⚙️
Aramex Package 3	100000003	Aramex	client_user	Test Source	Test Destination	Blue	Jun 19 2022, 10:29	⚙️

2- All the Packages in the system sorted by the date of creation, and it can be sorted by any field - just click on it - Actions menu will be follow the field with related actions. For example,

Packages

[Export](#)

Package Name	Track Number	Courier	Client	Source	Destination	Status	Added On	Actions
SMSA Package 1	290126681401	SMSA	client_user	Test Source	Test Destination		Jun 19 2022, 08:48	 ▾
Aramex Package 1	123456789	Aramex	client_user	Test Source	Test Destination		Jun 19 2022, 09:17	 ▾
Aramex Package 2	112233445566	Aramex	client_user	Test Source	Test Destination		Jun 19 2022, 09:18	 ▾
SMSA Package 2	159357456	SMSA	client_user	Test Source	Test Destination		Jun 19 2022, 10:28	 ▾
SMSA Package 3	100000001	SMSA	client_user	Test Source	Test Destination		Jun 19 2022, 10:29	 ▾
SMSA Package 4	100000002	SMSA	client_user	Test Source	Test Destination		Jun 19 2022, 10:28	 ▾
Aramex Package 3	100000003	Aramex	client_user	Test Source	Test Destination		Jun 19 2022, 10:29	 ▾
Aramex Package 4	100000004	Aramex	client_user	Test Source	Test Destination		Jun 19 2022, 10:29	 ▾
Aramex Package 5	100000005	Aramex	client_user	Test Source	Test Destination		Jun 19 2022, 10:29	 ▾
SMSA Package 5	100000006	SMSA	client_user	Test Source	Test Destination		Jun 19 2022, 10:31	 ▾
SMSA Package 6	100000007	SMSA	client_user	Test Source	Test Destination		Jun 19 2022, 10:31	 ▾

Track
Cancel

3- Export function, will generate CSV file with the packages in the system

4- Sidebar, Admins can view all the tabs but the Normal user can view Dashboard and Courier List

Courier List

ZidShip	Search	Sign out									
Dashboard Couriers List Packages Couriers Clients Statuses	Couriers <div>4</div> <div>Export</div>										
	<table><tr><th>Name</th><th>Is Active</th><th>Actions</th></tr><tr><td>SMSA 1</td><td>✓ 2</td><td>⚙️ 3</td></tr><tr><td>Aramex</td><td>✓</td><td>⚙️</td></tr></table>	Name	Is Active	Actions	SMSA 1	✓ 2	⚙️ 3	Aramex	✓	⚙️	
Name	Is Active	Actions									
SMSA 1	✓ 2	⚙️ 3									
Aramex	✓	⚙️									

Courier list is for display the courier waybills and it contains the following:

- 1- Courier name, the system will redirect to the courier details view.
- 2- Admin can activate / deactivate the couriers
- 3- Actions button, the system will redirect to packages list with the prices and total price with export feature as CSV.

ZidShip	Search	Sign out									
Dashboard Couriers List Packages Couriers Clients Statuses	Couriers <div>Export</div>										
	<table><tr><th>Name</th><th>Is Active</th><th>Actions</th></tr><tr><td>SMSA</td><td>✓</td><td>⚙️</td></tr><tr><td>Aramex</td><td>✓</td><td>Waybill</td></tr></table>	Name	Is Active	Actions	SMSA	✓	⚙️	Aramex	✓	Waybill	
Name	Is Active	Actions									
SMSA	✓	⚙️									
Aramex	✓	Waybill									

ZidShip

Search

Sign out

Dashboard

Couriers List

Packages

Couriers

Clients

Statuses

Packages

Total Price 6000.0

Export

Name	Client	Price	Source	Destination	Created
SMSA Package 5	client_user	1200.0	Test Source	Test Destination	June 19, 2022, 10:31 p.m.
SMSA Package 4	client_user	1200.0	Test Source	Test Destination	June 19, 2022, 10:28 p.m.
SMSA Package 3	client_user	1200.0	Test Source	Test Destination	June 19, 2022, 10:28 p.m.
SMSA Package 2	client_user	1200.0	Test Source	Test Destination	June 19, 2022, 10:26 p.m.
SMSA Package 1	client_user	1200.0	Test Source	Test Destination	June 19, 2022, 8:48 p.m.

- 4- Export all the couriers in the system in CSV format.

Packages:

This is implemented using REST API framework by Django.

Dashboard

Couriers List

Packages

Couriers

Clients

Statuses

Search

Sign out

OPTIONSGET

12

Package List

API endpoint that allows users to be viewed or edited.

GET /packages/

HTTP 200 OK

Allow: GET, POST, HEAD, OPTIONS

Content-Type: application/json

Vary: Accept

```
{
  "count": 11,
  "next": "/api/127.0.0.1:8000/packages/?page=0",
  "previous": null,
  "results": [
    {
      "id": 11,
      "track_number": "100000007",
      "name": "ARAMEA Package 4",
      "price": "1200.00",
      "source": "Test Source",
      "destination": "Test Destination",
      "status_log": null,
      "data_created": "2022-06-19T22:13:15Z",
      "data_modified": "2022-06-19T22:13:15Z",
      "courier": 1,
      "client": 2,
      "status": 7
    },
    {
      "id": 10,
      "track_number": "100000006",
      "name": "ARAMEA Package 5",
      "price": "1200.00",
      "source": "Test Source",
      "destination": "Test Destination",
      "status_log": null,
      "data_created": "2022-06-19T22:13:14Z",
      "data_modified": "2022-06-19T22:13:14Z",
      "courier": 1,
      "client": 2,
      "status": 2
    },
    {
      "id": 9,
      "track_number": "100000005",
      "name": "ARAMEA Package 5",
      "price": "800.00",
      "source": "Test Source",
      "destination": "Test Destination",
      "status_log": null,
      "data_created": "2022-06-19T22:13:13Z",
      "data_modified": "2022-06-19T22:13:13Z",
      "courier": 2,
      "client": 2,
      "status": 6
    },
    {
      "id": 8,
      "track_number": "100000004",
      "name": "ARAMEA Package 4",
      "price": "400.00",
      "source": "Test Source",
      "destination": "Test Destination",
      "status_log": null,
      "data_created": "2022-06-19T22:13:12Z",
      "data_modified": "2022-06-19T22:13:12Z",
      "courier": 2,
      "client": 2,
      "status": 6
    },
    {
      "id": 7,
      "track_number": "100000003",
      "name": "ARAMEA Package 3",
      "price": "800.00",
      "source": "Test Source",
      "destination": "Test Destination",
      "status_log": null,
      "data_created": "2022-06-19T22:13:11Z",
      "data_modified": "2022-06-19T22:13:11Z",
      "courier": 2,
      "client": 2,
      "status": 3
    },
    {
      "id": 6,
      "track_number": "100000002",
      "name": "ARAMEA Package 4",
      "price": "1200.00",
      "source": "Test Source",
      "destination": "Test Destination",
      "status_log": null,
      "data_created": "2022-06-19T22:13:10Z",
      "data_modified": "2022-06-19T22:13:10Z",
      "courier": 1,
      "client": 2,
      "status": 2
    },
    {
      "id": 5,
      "track_number": "100000001",
      "name": "ARAMEA Package 3",
      "price": "1200.00",
      "source": "Test Source",
      "destination": "Test Destination",
      "status_log": null,
      "data_created": "2022-06-19T22:13:09Z",
      "data_modified": "2022-06-19T22:13:09Z",
      "courier": 1,
      "client": 2,
      "status": 4
    },
    {
      "id": 4,
      "track_number": "123456789",
      "name": "ARAMEA Package 2",
      "price": "1200.00",
      "source": "Test Source",
      "destination": "Test Destination",
      "status_log": null,
      "data_created": "2022-06-19T22:13:08Z",
      "data_modified": "2022-06-19T22:13:08Z",
      "courier": 2,
      "client": 2,
      "status": 3
    },
    {
      "id": 3,
      "track_number": "123456789",
      "name": "ARAMEA Package 2",
      "price": "400.00",
      "source": "Test Source",
      "destination": "Test Destination",
      "status_log": null,
      "data_created": "2022-06-19T22:13:07Z",
      "data_modified": "2022-06-19T22:13:07Z",
      "courier": 2,
      "client": 2,
      "status": 3
    },
    {
      "id": 2,
      "track_number": "123456789",
      "name": "ARAMEA Package 1",
      "price": "800.00",
      "source": "Test Source",
      "destination": "Test Destination",
      "status_log": null,
      "data_created": "2022-06-19T22:13:06Z",
      "data_modified": "2022-06-19T22:13:06Z",
      "courier": 2,
      "client": 2,
      "status": 7
    }
  ]
}
```

HTML form

Raw data

Track number

Name

Price

Source

Destination

Status log

Courier

Client

Status

POST

Courier:

This is implemented using REST API framework by Django.

ZidShip

Search

Sign out

Dashboard

Couriers List

Packages

Couriers

Clients

Statuses

Courier List

API endpoint that allows users to be viewed or edited.

GET /couriers/

HTTP 200 OK

Allow: GET, POST, HEAD, OPTIONS

Content-Type: application/json

Vary: Accept

```
{
  "count": 2,
  "next": null,
  "previous": null,
  "results": [
    {
      "id": 1,
      "status_mapping": {
        "Cancelled": "",
        "Delivered": "",
        "Failed": "",
        "New": "",
        "Pending": "Picked Up",
        "Rejected": "",
        "Shipped": "Out For Delivery",
        "Shipping": "In Transit"
      },
      "track_details_div": {
        "attribute": "",
        "child": "row",
        "tag": "div",
        "value": "tracking-details-container"
      },
      "status_div": {
        "tag": "div",
        "attribute": "class",
        "value": "track-wrap",
        "child": "div"
      },
      "date_div": {
        "attribute": "class",
        "child": "div",
        "tag": "div",
        "value": "date-wrap"
      },
      "time_div": {
        "attribute": "class",
        "child": "span",
        "tag": "div",
        "value": "track-wrap-content-left"
      },
      "location_div": {
        "attribute": "class",
        "child": "span",
        "tag": "div",
        "value": "track-wrap-content-right"
      },
      "name": "DMSA",
      "tracking_url": "https://www.emsagreen.com/trackingdetails?trackNumber=",
      "outer_script_path": null,
      "is_active": true,
      "automatic_run": false,
      "invalid_clause": "This tracking number is not found"
    },
    {
      "id": 2,
      "status_mapping": {
        "Cancelled": "",
        "Delivered": "",
        "Failed": "",
        "New": "",
        "Pending": "",
        "Rejected": "Supporting Document Returned to Shipper",
        "Shipped": "",
        "Shipping": ""
      },
      "track_details_div": {
        "attribute": "",
        "tag": "div",
        "value": "bottomGreyBorder"
      },
      "status_div": {
        "attribute": "class",
        "tag": "div",
        "value": "leftFloat shipmentHistoryActivityLabel"
      },
      "date_div": {
        "attribute": "class",
        "tag": "div",
        "value": "leftFloat shipmentSummaryLabel"
      },
      "time_div": {
        "location_div": {
          "attribute": "class",
          "tag": "div",
          "value": "leftFloat thirdWidth"
        },
        "name": "Arames",
        "tracking_url": "https://www.aramex.com/en/track/results?shipmentNumber=",
        "outer_script_path": "main_app.api.trackers.Trackers",
        "is_active": true,
        "automatic_run": true,
        "invalid_clause": "Invalid number / data not currently available"
      }
    }
  ]
}
```

HTML form

Raw data

Status mapping

{ "Cancelled": "",

Track details div

{ "attribute": "",

Status div

{ "attribute": "",

Date div

{ "attribute": "",

Time div

{ "attribute": "",

Location div

{ "attribute": "",

Name

Tracking url

Outer script path

In case of outer script needed

Is active

☐ The courier will not be available if is_active=False

Automatic run

☐ To run with celery every 12 hours

Invalid clause

POST

C Status:

This is implemented using REST API framework by Django. This table is a constant table for the statuses in the system

ZidShip

Search

Sign out

Dashboard

Couriers List

Packages

Couriers

Clients

Statuses

C Status List

API endpoint that allows users to be viewed or edited.

GET /statuses/

HTTP 200 OK

Allow: GET, POST, HEAD, OPTIONS

Content-Type: application/json

Vary: Accept

```
{
  "count": 8,
  "next": null,
  "previous": null,
  "results": [
    {
      "code": 1,
      "description": "New",
      "color": "light"
    },
    {
      "code": 2,
      "description": "Pending",
      "color": "secondary"
    },
    {
      "code": 3,
      "description": "Shipping",
      "color": "info"
    },
    {
      "code": 4,
      "description": "Shipped",
      "color": "primary"
    },
    {
      "code": 5,
      "description": "Delivered",
      "color": "success"
    },
    {
      "code": 6,
      "description": "Rejected",
      "color": "danger"
    },
    {
      "code": 7,
      "description": "Canceled",
      "color": "dark"
    },
    {
      "code": 8,
      "description": "Failed",
      "color": "warning"
    }
  ]
}
```

HTML form

Raw data

Description

Color

POST

Clients:

This is implemented using REST API framework by Django.

ZidShip

Search

Sign out

Dashboard

Couriers List

Packages

Couriers

Clients

Statuses

OPTIONS

GET

Client List

API endpoint that allows users to be viewed or edited.

GET /clients/

HTTP 200 OK

Allow: GET, POST, HEAD, OPTIONS

Content-Type: application/json

Vary: Accept

```
{
  "count": 3,
  "next": null,
  "previous": null,
  "results": [
    {
      "id": 1,
      "password": "pbkdf2_sha256$260000$ipe833y8w9ns1f4b8y8GCJf6Z8Uj9mNcjh76G687D5301YaPvlely9248ed128o0NE=",
      "last_login": "2022-06-19T22:12:30.754371Z",
      "is_superuser": true,
      "username": "admin",
      "first_name": "",
      "last_name": "",
      "email": "mahmood.nasr.fcis@gmail.com",
      "is_staff": true,
      "is_active": true,
      "date_joined": "2022-06-19T20:31:47Z",
      "groups": [
        1
      ],
      "user_permissions": []
    },
    {
      "id": 2,
      "password": "pbkdf2_sha256$260000$7dQ2IITb8eEY1ZeuQp6nX8a59WP1qyTh8R8r8VV7/ev180XE+Q5-dmz1555721g2RA/Q=",
      "last_login": null,
      "is_superuser": false,
      "username": "client_user",
      "first_name": "",
      "last_name": "",
      "email": "",
      "is_staff": false,
      "is_active": true,
      "date_joined": "2022-06-19T20:33:29Z",
      "groups": [
        2
      ],
      "user_permissions": []
    },
    {
      "id": 3,
      "password": "pbkdf2_sha256$260000$9wrcnops8AOY0pR4VX8Fb888f8h3Pb/+5MqY11AlUaNOEcs0TNLFpXKX8p8381q8N1s=",
      "last_login": null,
      "is_superuser": false,
      "username": "courier_user",
      "first_name": "",
      "last_name": "",
      "email": "",
      "is_staff": false,
      "is_active": true,
      "date_joined": "2022-06-19T20:34:07Z",
      "groups": [
        2
      ],
      "user_permissions": []
    }
  ]
}
```

HTML form

Raw data

POST

Password

Last login

mm/dd/yyyy, --:-- --

Superuser status

Designates that this user has all permissions without explicitly assigning them.

Username

Required. 150 characters or fewer. Letters, digits and @/+/./_ only.

First name

Last name

Email address

Staff status

Designates whether the user can log into this admin site.

Active

Designates whether this user should be treated as active. Unselect this instead of deleting accounts.

Date joined

mm/dd/yyyy, --:-- --

Groups

admin
courier
client

The groups this user belongs to. A user will get all permissions granted to each of their groups.

User permissions

admin | log entry | Can add log entry
admin | log entry | Can change log entry
admin | log entry | Can delete log entry
admin | log entry | Can view log entry
auth | group | Can add group
auth | group | Can change group
auth | group | Can delete group
auth | group | Can view group

Specific permissions for this user.