## **Standard Logistics**

Backend for Freight Traffic Application where users can find transport for their goods, find goods for transportation, find warehouses for keeping goods and placing notifications on Notifications section. Application backend need to be provided in 3 languages (English, Russian and Turkmen).

Backend Developer: Muhammetmurat Gylyjov

**Client:** Muhammet Husainow

## 1. Programming Requirements:

- o Programming language for the backend: Python
- ∘ Framework for the backend: Django version  $\ge 4.1$
- o Library for API: Django Rest Framework version ≥ 3.14
- $\circ$  Library for authorization: Django Simple JWT version ≥ 5.2
- o Django Admin Template: Django Jazzmin version ≥ 2.6
- o Library for API documentation: DRF-Yasg (Swagger) ≥ 1.21
- Extra Python Libraries:
  - Pillow
  - Pandas
  - Cors-headers
  - PSYCOPG2
  - PyJWT version 1.7.1 (latest version conflicts with Django Rest)
  - Requests
  - OpenPyXL
- Database for the backend: PostgreSQL

## 2. Work Process:

1. Designing UML schema of the Database.

- 2. All the data on the UML schema is crucial for the further development of the backend, because all the needed fields for the database will be shown. So, Client need to confirm UML schema (within 1-3 days).
- 3. Create Database models based on confirmed UML schema. (After confirming the UML, all the changes that client wants, need to be confirmed with the backend developer.)
- 4. Remodeling standard admin pages of the Django Framework based on the created models.
- 5. Creating CRUD APIs for the created models. (CRUD: Create, Read, Update, Delete)
- 6. Creating Filterable APIs for the created models.
- 7. Creating API documentation for APIs
- 8. Publishing all the codes to the GitHub account of the client.
- 9. Fixing errors (if have any) provided by the client.
- 10. Creating additional APIs if needed (within a reasonable).
- 11. Publishing the backend in the server. (Ubuntu v20.04)

## 3. Other:

- 1. The total cost of the tasks listed above is 16,000 manat.
- 2. Payment in cash.
- 3. Prices can be increased or decreased depending on the addition or removal of tasks.
- 4. Lead time 1-1.5 months.
- 5. Costs and lead time of the all additional tasks need to be negotiated separately.