Product Update

Megacity Deliveries is taking off!

First customers are enrolled and we have a steady revenue stream.

There have however been some problems with our systems that we should address, hardening the systems before any expansion.

Data validation

Our data is beginning to become polluted; we have seen several instances: couriers with invalid locations or names, venues with incomplete information, orders without a product list, and others. We want to add thorough validation to make sure we keep our data clean.

1. Couriers
   1. Couriers without a name are not permitted in the system
   2. Couriers with invalid locations are not permitted in the system, either by creation or location update
2. Venues
   1. Venues without a name are not permitted in the system
   2. Venues with invalid locations are not permitted in the system
3. Client addresses
   1. Client phone numbers are optional, but should be valid if provided
   2. Clients without a name are not permitted in the system
   3. Clients with invalid locations are not permitted in the system
4. Orders
   1. Order products, if provided, should have cost and quantity
   2. Order products cost must be a positive number, with monetary format
   3. Delivery cost must be a positive number, with monetary format
   4. Delivery expected time, if provided, must be in the future
   5. All orders entering the system should have status NEW, and total price computed correctly
   6. The distance from venue to client address should never be more than 20km (bee-line distance)

Improved Development Process

Since business is going well, we will need to grow our development team. It will help to make the onboarding process as quick as possible. Management has decided that the most time efficient upgrade we can make now is that deploying on local vs production environments should be made easy. CI/CD and a test environment will be set up later.

Deliveries monitoring

In order to monitor deliveries and courier activity, the UI team is building a dispatch web app. This application will help them visualize ongoing deliveries, and couriers.

To build the dashboards, they need to pull data from the system, in the following ways:

* Pull a list of all ongoing orders
* Pull a list of all orders with a given status
* Pull a list of all orders that are open and their expected delivery date has passed (late orders)
* Pull a list of all orders ongoing orders, for a given courier