

DEMIGOS

IT consulting and startups

SUCCESS STORIES

[Universal Coach Line](#)

[Summary](#)

[Challenge](#)

[Results](#)

[Wendy's Team](#)

[Summary](#)

[Challenge](#)

[Process](#)

[Results](#)

[Mobilism](#)

[Summary](#)

[Challenge](#)

[Results](#)

[Logistics system for Doll & Leiber](#)

[Summary](#)

[Challenge](#)

[Results](#)

[reDonbass](#)

[Summary](#)

[Challenge](#)

[Results](#)

Universal Coach Line



If you are looking for a safe and reliable charter bus company...
You have reached the right place.

Gi a a UfmÆ

Universal Coach Line is a Canadian transportation company which provides bus charters to all travel destinations in North America, all year round.

The company has divisions in 3 cities in Canada and was seeking for an integrated system to manage and schedule their fleet, drivers, track everything and at the same time automate the customers flow, from a guest coming to the web site and devising a suitable route for a trip, to regular work with UCL managers on multiple requests, with all the required information flow like Charter reports and Invoices. The idea was to have customers, managers and drivers always in the loop. Also the system had to automate accounting and provide management reporting.

We spent time on gathering requirements and analysing business priorities, and when the vision was agreed started development, in short iterations and with frequent demonstrations. The solution is based on Python and PostgreSQL with a lot of dynamic JavaScript on web site pages.

7\U`Yb[YÆ

The company used multiple separate programs to manage their work and data was passed between programs manually. There were no strict rules on how to estimate prices and managers were used to make decisions by intuition. It was difficult to even formulate the right rules as everybody thought differently.

On opening of a new division the company decided to come up with single integrated solution to fulfill all the needs and bring the company on a new level of transparency, and use it in all divisions. At the same time different divisions use slightly different approaches in work. There were multiple visions of requirements, and the management was afraid of the difficulty of an integrated solution and on its implementation in company's offices.

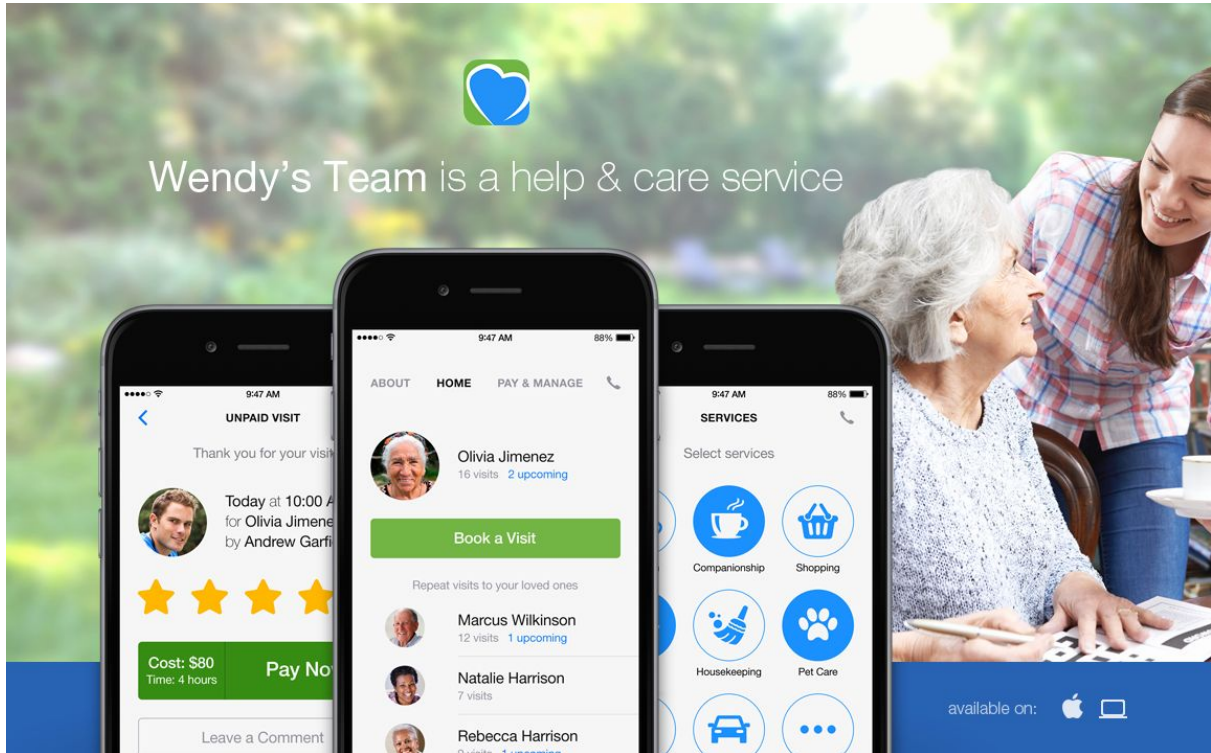
FYgi `hgÆ

	June	July	August	September	October	November	Hours	Days	Weeks		
	Charter 5908						June				
Coaches	10	11	12	13	14	15	16	17	18	19	20
1228 1x21/24											
1235 1x48	#5882 5908				14.06.2017 22:00						
1268 1x55/56											
1600 1x55/56											#5883
1601 1x48	#5881 5908										#5879
				10.06.2017 10:00 - 13.06.2017 21:00 For: Mountain High Dispatch 5882 Charter 5908 Driver Brandon Stone							

The project is ongoing, currently the solution allows to manage resources, notify staff and customers and do accounting. Next phases are to develop a mobile application for drivers to track their schedule, current location and expenses and update on changes, and also a web site for customers such as travel agencies to automate trip requests and provide estimates. Currently the project code is 80% covered with automated testing.

Currently the system is in use by one of the offices of the company. We have very positive feedback and it is planned to setup the system in other company offices.

Wendy's Team



Goals

Wendy's Team service helps to find householders and caregivers for elderly people. Seniors get support from the care angles of the company, - an elderly person or his relative can order the services such as housekeeping, errands, pet care and place the order easily using the mobile application or website. And for the freelanced team members it is a convenient way to find work.

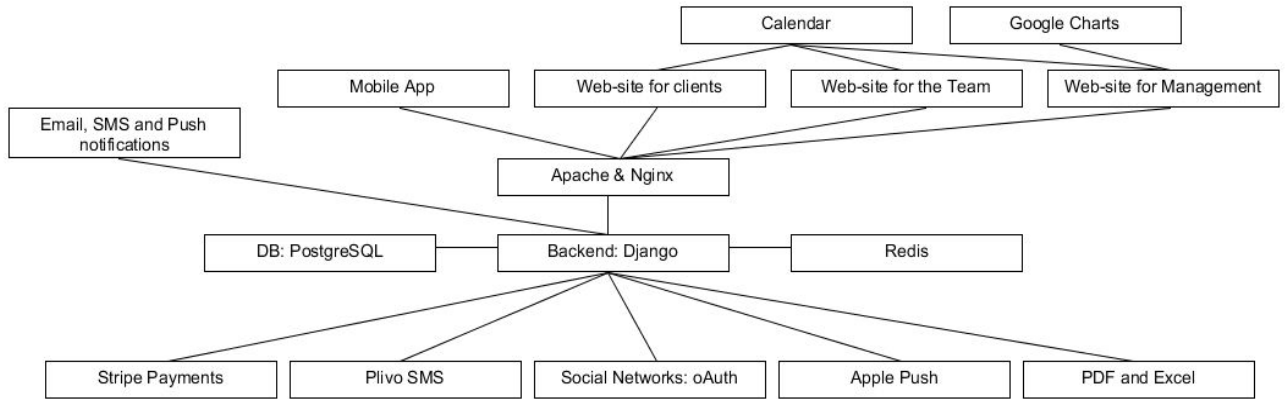
The system is built using Python and PostgreSQL database.

Challenges

We had to provide a production solution within first month so that the business could switch to using it quickly.

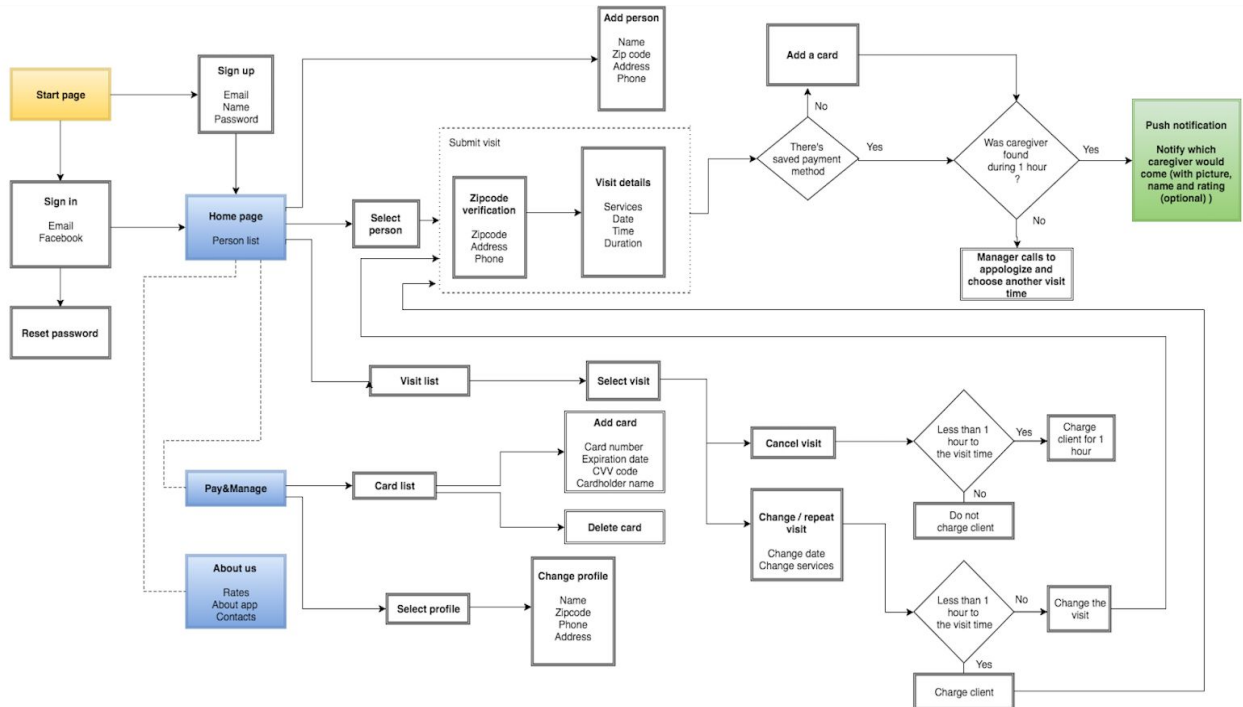
The interface for both website and mobile app had to be very simple and easy to grasp, for elder people audience.

In a growing startup it is important to adapt to the needs of users and business, even if the general direction was chosen right.



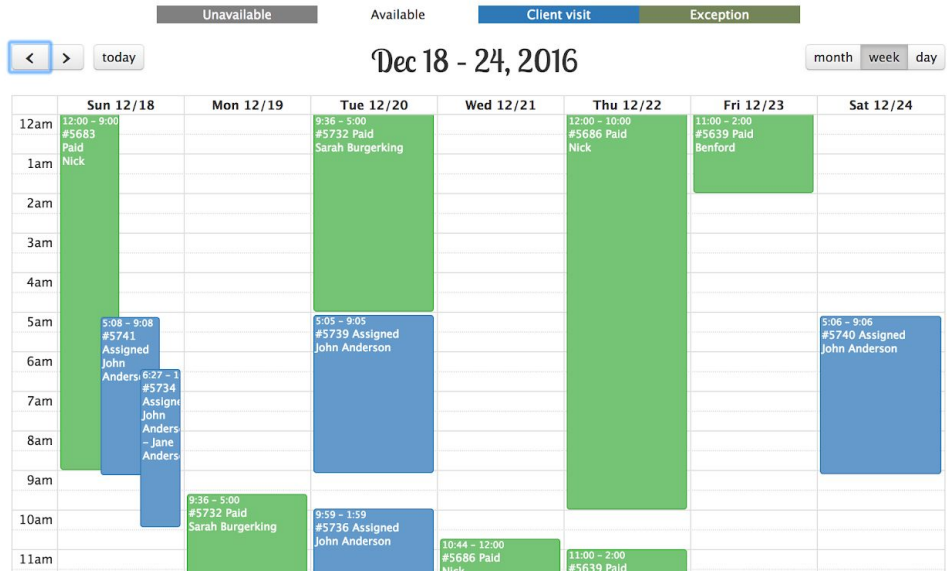
Df c W g g E

When we started, it was only the idea, so we have thought over all the processes and created flow chart diagrams for different roles workflows. You can check the flow chart diagram for a Customer:



The system gives an ability to spend little time for operations because of the processes automation. Caregivers receive notifications when a new visit in their area appears and if a visit time matches to a Caregiver calendar. After a visit, Caregiver logs duration of the visit and writes his feedback. Caregiver can schedule their work hours in a convenient way:

Calendar Schedule Exceptions General Availability



After a Caregiver logs the actual duration of a visit, a Customer charged automatically and received the invoice details in email.

Customer also has its own portal, where he can check the information about his visits, look at the visits schedule and manage payment methods.

Visits for client

All

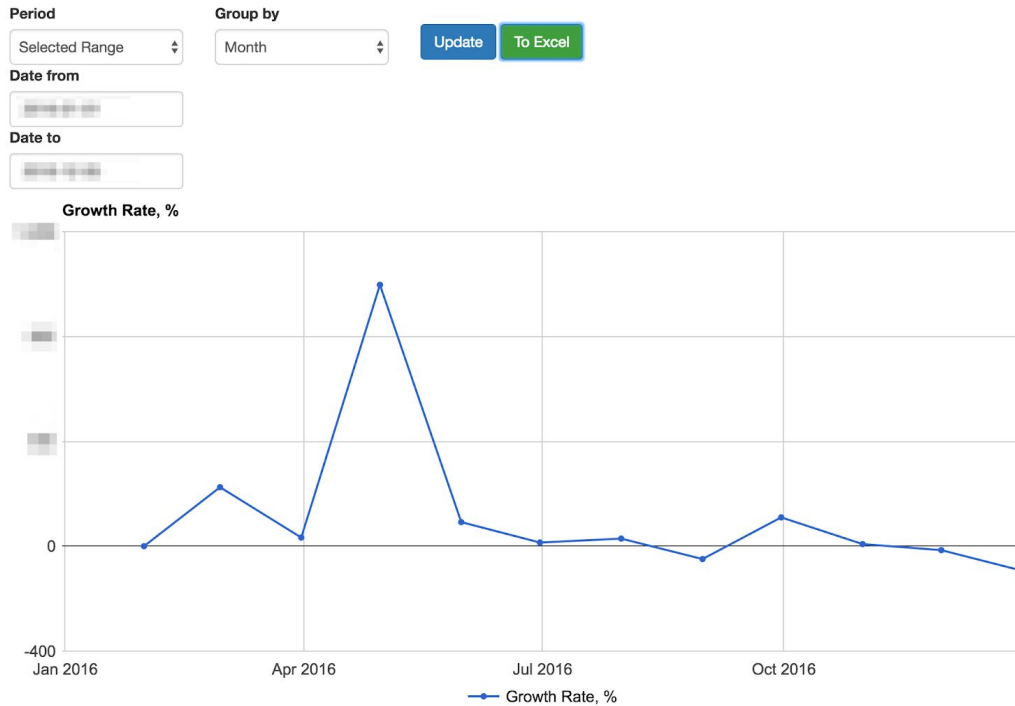
Save PDF

Status colors **New** Assigned Done Paid



A Manager and Sales Team can track the company's financial results and get different formats of reports.

Growth Rate, %



FYgi`hgÆ

Processes automation and notifications in almost every step of the process allow easily control the activities. Customers can request services whenever they need and track it easily. Caregivers can quickly respond to new requests and schedule their work days. Before the system was built the business manager was spending 30-40 hours a week on organizing the work and customer service. Now, with a much larger number of Customers and Caregivers, it takes around 4 hours a week to control everything.

Flexible architecture ensured seamless upgrade of the system with new features. Short iterations and regular releases allowed rapid adaptation to the needs of users and business and continuous improvement of user experience.

Reports provided to a Manager and Accountant with the overview of system analytics, gives the ability to get various metrics and financial statistics in different time scales.

With the help of feedback and rating system the quality of services was maintained on high level, even with a flow of new Caregivers joining the team.

Flexible payment system based on Stripe payment platform allowed the cards usage and bank accounts by Customers and Caregivers, with the ability to register manual payments, issue promotional discounts and refunds.

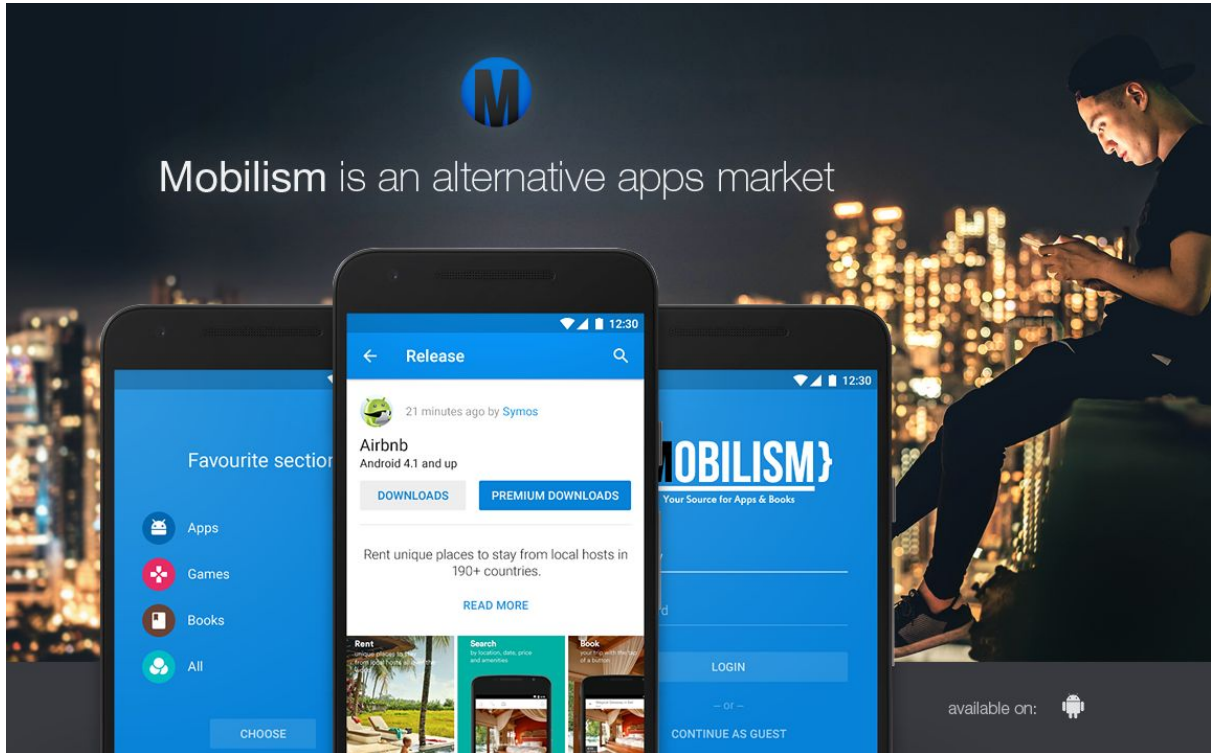
The SEO and page speed optimizations were highly ranked by Google:

<https://developers.google.com/speed/pagespeed/insights/?url=https%3A%2F%2Fwendys-team.com>

Website: <https://wendys-team.com>

iOS application: <https://itunes.apple.com/us/app/wendys-team/id1117007293>

Mobilism



Gi a a UfmÆ

Mobilism is a large US [website](#) with 70 000 unique users per day. It is popular among users for the ability of sharing apps, books and games for mobile devices. People can publish or find useful content there. We had a task to create an Android app for this forum.

7\U`Yb[YÆ

The forum was built about 10 years ago on phpBB engine, and it contained a lot of legacy, outdated code. The major difficulty was to create an API for the mobile application which would mirror the system's functionality and work with relevant data.

FYgi`hgÆ

After continuous research into the system's code it was decided that it would be easier to build a new solution working directly with the database and not to rely on the existing forum logic.

This also gave a number of insights which led to performance improvements of existing solution. See below the results of performance testing before and after our changes.

Test scenario #1

Item	Value
Scenario Name	45 requests per second TO messages
Transactions Count	45
Total Passed Transactions	45
Total Failed Transactions	0
Time to First Error after Started	-
HTTP Codes Presence	200
Minimum Response Time, ms	1056
Average Response Time, ms	23000
Maximum Response Time, ms	35000
Average Throughput(TPS)	136,1/sec

Test scenario #2

Item	Value
Scenario Name	1500 requests per second TO messages
Transactions Count	1500
Total Passed Transactions	1500
Total Failed Transactions	0
Time to First Error after Started	-
HTTP Codes Presence	200
Minimum Response Time, ms	100
Average Response Time, ms	1053
Maximum Response Time, ms	8453
Average Throughput(TPS)	136,1/sec

An application for Android was designed using the Material Design concept, you can check the [mockups](#).

Logistics system for Doll & Leiber



Gi a a UfmÆ

Doll&Leiber is a software development company working on transportation and logistics products. The company had a flow of orders they wanted to share with independent carriers and smaller companies on a regular basis.

The system we built gave the ability to send orders to carriers' mobile devices. With the help of this mobile application, a driver or a driver's manager could review order details, send a proposal for the trip, display available orders on the map corresponding to his location. Clients could review order offers and statuses and receive notification when the offer was accepted.

A system of filters allowed the users to receive notifications on available orders based on specific criteria.

The system was built using Java.

7\U`Yb[YÆ

We needed to integrate the existing system with our solution and find the best way for data exchange.

The client often presented their system on various exhibitions with different configurations thus our solution had to be very flexible to adjust on the fly.

FYgi`hgÆ

The system architecture and API allow using the system as white label, changing a configuration easily, without any coding.

The mobile applications for iOS and Android were build for internal purposes of the company, they are not available in Appstore or Google Play.

You can check the mockups: [iOS](#) & [Android](#)

