Retail Projects

exposit
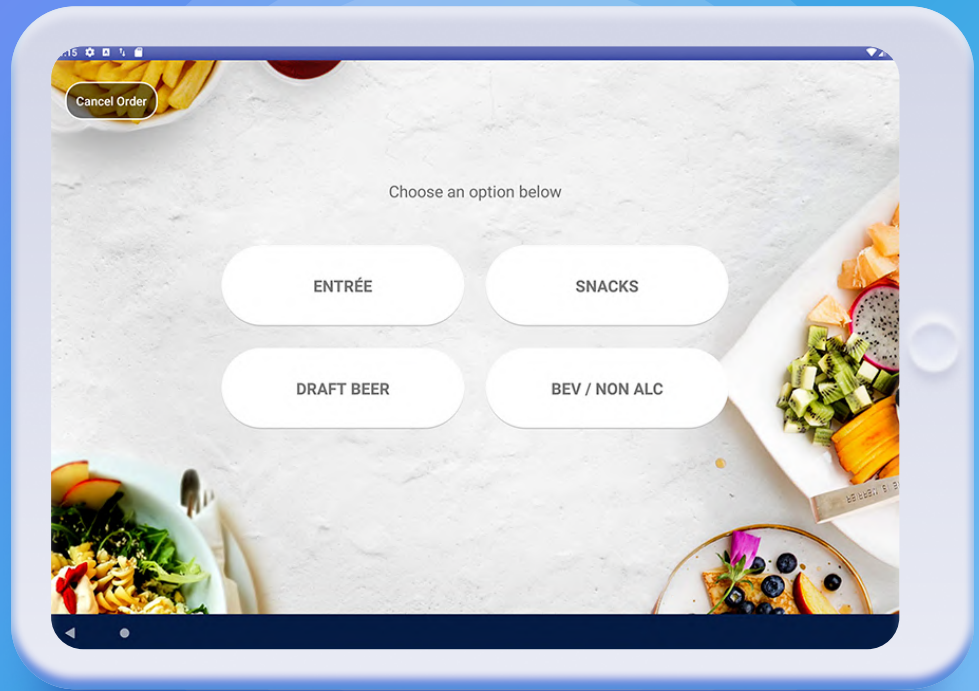
PoS System
for Catering

PoS system for customer service in the catering industry

System works in integration with a cloud platform for snack bar management on cultural events. Customized PoS system provides customer service in catering places and simplifies ordering process.

Task	Completion of a mobile Android application, bug-fixing.

Solution	During the project we complement and rewrite the existing code, test developed software. We have been developing the mobile PoS system that allows to order food and pay for it with credit card or cash. After the payment user gets a check with the number of order.

We have realized:

— UI customization;

— Analytics integration;

— Interface adaptation to screen rotation (portrait mode).

What is planned to be realized:

— Authorization with phone number;

— Your orders' history view;

— Connection of software to hardware, testing how the application works with it.
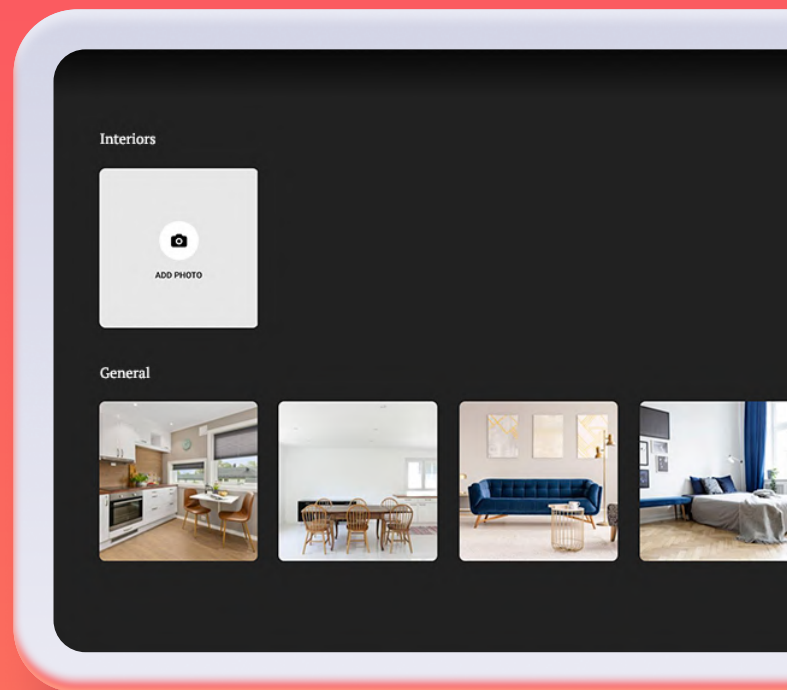
Technologies used

Kotlin	Gson	HockeyApp
RxJava 2	ZXing	LeakCanary
Room	Glide	Stetho
Retrofit	Timber	MVP architecture
OkHttp	Appsee	Flowr fragment navigation

Wizart

Artificial Intelligence Interior Assistant

Sometimes the designs in our head don't always look good in real life. There's where interior design apps come in for all the experiments. Our AI-based interior design application lets you try out wallpapers in your home before buying. Just need to turn on a phone camera, select a suitable type and material and a new interior design will pop up in a photo of your space! With a few clicks neural network technology helps a retail salesperson and customers to make a choice. It is a clear and really good business model here — selling people the real stuff, once they've seen it virtually in their room.

Task

Development of an AI-driven iOS application, web demo and widget for instant wallpapers modeling.

Solution

Mobile iOS application created use neural network to show the customers new interior design ideas in just a few clicks.

How does it work?
After receiving a photo the application recognizes the ceiling, floor, furnishings and decorations. Then, the user has a chance to apply his favourite wallcovering options on the photo and the existing wallcovering is replaced by a new choice. You can try different types and colours of wall until you satisfied with the results and finished the room repair.

Augmented Reality mode can be used for more accurate overlay.
For example, when a user wants to take a series of pictures for a room, for ex. 20 pics. It's easier to use the augmented reality mode and place the room manually, and then take pictures. Because automatic marking does not handle any photo — 20 photos will be processed in the first for a long time, secondly, not very accurately.

How is the room placed manually?
The user turns on the camera, he comes up one by one to each of the walls of the room. The wall is automatically recognized and a marker is added to the wall. After all the walls are marked you can take photos. If the wall is not recognized automatically, the user will need to place the marker manually.

To make the application run according to the algorithm, the following features were implemented:
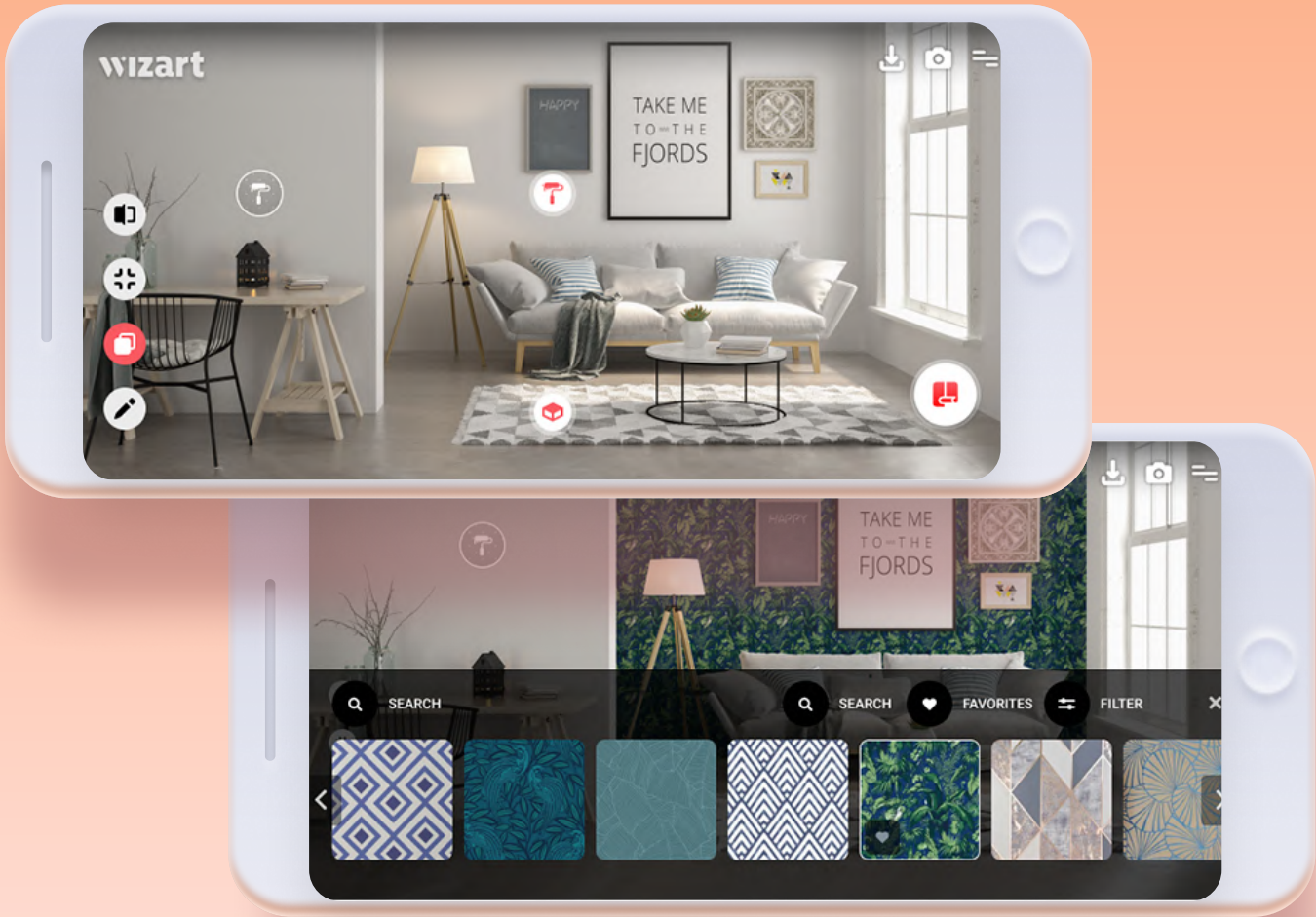
— Visualization tool for previewing how rooms look in different colors;

— Built-in measurement feature;

— Preserving the shadows, scale and perspectives of the room;

— Distinguishing elements like pillars, wall niches, arches etc.

— A set of wallcovering options available including colours, textures and geometric patterns;

— Eventually, the ability to save the final design for future reference and share it with friends.

Integration options:

— An internet store plug-in;

— A workspace or self-service terminal in the offline store.

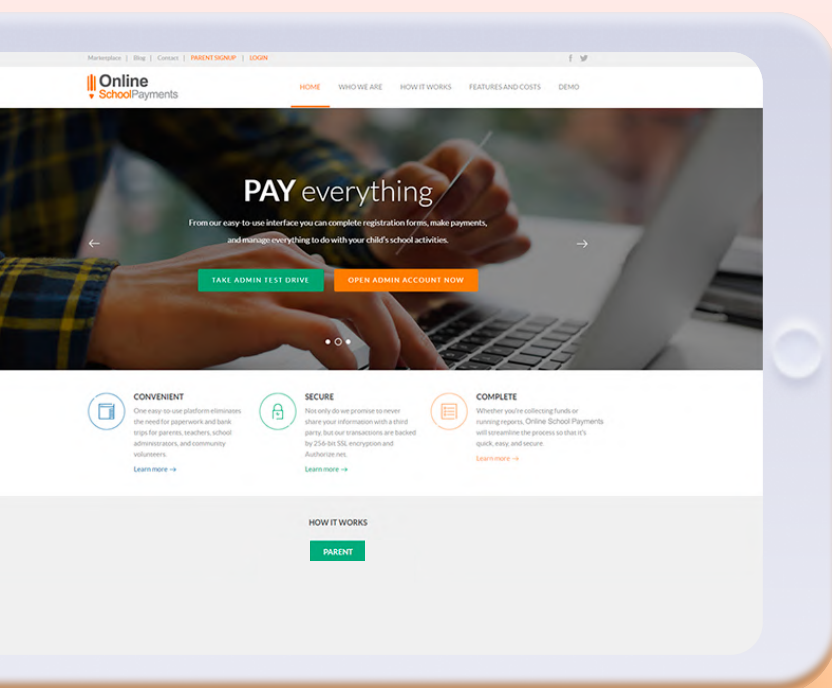Web demo for stands works just like a demo with pre-prepared results.
Web widget works just like a mobile application but without augmented reality.

Technologies used

Swift	numpy
Python	cv2
Keras	Doker

Online School payments

Online School payments is an American payment website for parents and educational institutions

The site allows to aggregate in one place representatives of schools, the near - school organizations offering various school activities, services, goods for parents of the children who are learn at these schools. The parents can visit the website and book tickets for school actions, order/pay courses and school goods for all their school-age children.

Task

Performance problems, outdated design, lack of functionality essential for modern e-commerce systems (trial mode, demo account, etc.), payment system changing to PayGov.

Solution

The pay4schoolstuff.com project arrived to Exposit D.S. for expansion of functionality, support and optimization. During the support period, the following tasks were implemented:

— Optimization and stabilization of the website work;

— Considerable expansion of the website functionality;

— Partial redesign;

— Completion and expansion of functionality of the portal administrative client;

— Optimization of the hosting server;

— Start of automatic backups of the portal.

Technologies used

Linux

Apache

PHP

MySQL

Under NDA

Under NDA

Under NDA

Farmers platform

Mobile eCommerce application for American farmers.

The application is designed for farmers who can sell their products here (corn, beans and other agricultural products), set prices, set goals and analyze sales. Mobile application designed specifically for iPhone usage.

Task

Development of client-side iOS application, bug-fixing.

Solution

Exposit specialists are involved in the development of a mobile iOS application for farmers for sales management. All code is covered by unit tests and UI tests to improve user experience. Implemented the following functionality: Exposit specialists are involved in the development of a mobile iOS application for farmers for sales management. All code is covered by unit tests and UI tests to improve user experience.

Implemented the following functionality:

— Registration / authorization, personal account;

— Charts where you can view analytics on farmers' sales, compare sales;

— The ability to set goals for sales and summarize statistics, fulfillment plan percentages;

— The ability to call the seller by phone;

— The ability to add farmers to favorites and view lists of favorites;

— Sort goods by cost, location, dates;

— Push notifications;

— Daily, monthly, annual graphs with prices for each crop.

Technologies used

UIKit

Swift

Custom Charts

Diagrams

SwiftLint

Fastlane

RestFetcher
(customer's own library)

Competitive Intelligence Tool

Web application (parser) for the regular control of the competitor's prices with an automatic goods comparison system.

The system notices even short-term dumping of competitor in violation of minimum retail prices. With the help of this parser you can get up-to-date information about the offers and products of competitors and quickly adjust your price.

Task

Development of a price parser that periodically tracks prices and assortment in an online store of competitor in order to build own pricing strategy.

Solution

Exposit team has been developing a web application (parser) for regular monitoring of competitor's prices with an automatic goods comparison system. The main trick of the project is that the competitor's site is protected from parsing and the names of the respective products differ from each other.

The algorithm of the parser:

— The application is configured to monitor the competitor's prices (available online in the online store) and the frequency of data collection is set.

— The data is collected regularly, filling the database of the customer.

— The collected data are compared on the prices and assortment between the nomenclature of our customer's online store and the nomenclature of competitor's one.

Moreover, a goods comparison web application was implemented for the parser's administrator. For this purpose, an algorithm for comparing competitor's products with the customer's goods was created. Files are downloaded in .xlsx format and stored in the database. Prices are compared on the basis of the processed data. Thus, the process of monitoring and comparing prices can be fully automated.

Technologies used

Python   Django

Scrapy   AP scheduler

Selenium