

Case Study

# AltexSoft & Online Travel Agency: Building a Travel Inventory Management Module

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# Background

Our client, an online travel agency based in Waterloo, Australia, sells tours and travel packages and gives travelers the option to pay for them on an installment plan over a 2- to 12-month period. They offer lay-by travel booking services with a wide range of services, including multi-day tours & cruises, internal and external flights, hotels, activities, and packages. The client reached out to AltexSoft to build an internal, online inventory management module.



# Challenges

Our goal was to build a repository that processes the contracts with all suppliers and stores all inventory, such as hotel rooms, sales, cruises, and other. This module has an admin panel that enables the agents to configure travel packages and display them on any platform via API. Within this scope, we worked with the following challenges:

**1.**

Develop the  
admin-facing system

**2.**

Expand hotel range

**3.**

Enable frontend connection



# Value Delivered

## 1. Created a user-friendly tour package system

As the client sells packages that can contain everything from tours and activities to cruises, one of our primary tasks was to help the travel agents create them. Our engineers built both a backend and frontend for the admin panel, using **React** for frontend and **Nodejs** for backend. Via this panel, the agents can map the content and create the packages, adding ancillary services to them.

## 3. Developed a custom API to connect with third-party platforms

One of the client's main requests was to have an opportunity to build this module platform-agnostic and enable connection to any website, both the client's and any third party's. To solve this problem, our team built a custom **Output API** that can deliver the repository content to the frontend of any travel platform. The output API was built using the **GraphQL** architecture.

## 2. Integrated a bed bank connectivity to expand hotel variety

The client's goal was to enrich the existing range of hotels offered by the platform. To expand the number of hotels available, our team integrated the **WebBeds XML API** with the repository. WebBeds is the second largest hotel room wholesaler on the market. Their API provides content, availability, and prices from over 350,000 properties from 12,000 destinations globally, allowing travelers to search and book rooms and properties.

# Approach and Technical Info

Total scope of the project reached **5.5 man-years**. The project was completed over the course of 5.5 months by a team of twelve professionals: **2 backend engineers, 2 frontend engineers, 2 full stack developers, 2 QA engineers, a UX/UI designer, a business analyst, a solution architect, and a project manager.**

The technology stack included **ReactJS** (for frontend), **Nodejs** (for backend), **GraphQL** (for Output API), **WebBeds API** (for hotel room management).



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