Car Rental Booking Engine
For
Netherland Based Company

[TRANSPORTATION – CUSTOM BOOKING ENGINE – MAGENTO 1.4]

Client Overview

About Client: Client is a Customized software development company who has a qualified team and many successful projects. The team of client consists of about 17 professionals who have won their spurs in custom software development.

Requirement Overview: Client wanted to develop CRBE (Car Rental Booking Engine) within Magento using the API of the existing car booking engine. Holidaycars.com is a car rental booking engine. It provides car rental booking to different vendors. In this project, we needed to integrate API provided by Holidaycars.com. CRBE has been developed within Magento with customization as requested by client. As the customers select the car and proceed to order, they would be able to complete order on same website and client receives its commission.

Proposed Solution: Silver Touch had used Magento to develop the whole site with customizations as and when required. Different API's methods have been integrated as suggested by client to fulfill the required functionality. This website has been developed in Magento Open Source Code Base- Version-1.4.x with MySQL 4x database.

Car Rental Booking Engine

Benefits

1. The car rental booking engine is developed for client with required functionality and API integration
2. The website is bilingual – English and Dutch
3. As the API was integrated, it helps to gain commission for the client.

Project Description

Main goal of this website is to develop a car rental booking engine where customers can come and book a car. On every booking done through this website, client gets some money. User interface of the application is designed in such a way that user are guided every time with available list of actions and results. Website is having following types of users.

Site Visitors: Site visitor will be able to find a car for interested pick up and drop off location with the parameters of date and time. After finding and selecting a car, user will need to get registered with the website to place an order / book a car. To get registered with the website, they will need to fill registration form. Guest Checkout is NOT allowed. User can come to the registration page by clicking on **"Create an Account"** link at login page. After registration, users will be immediately be logged in and access **"My Account"**.

Site Registered Users: This type of user will be able to login using their personal login information. This type of user will be able to interact with the website in different manners like, book a car, cancel booking, changes password and access My Account section.

Site Administrator: This type of user will ONLY be one user. This admin user will have full access to all features and functionalities of the website. This user will be able to manage the websites with all different modules mentioned in this scope of document.
Following is a list of modules / tasks required to be executed for this project.

1. **Design Integration:** All the designs were provided by the client but the responsibility of integration was of SilverTouch.
2. **Magento Implementation:** Magento Community Edition was implemented on end client server.
3. **Content integration:** We integrated total 05 content pages. These pages were managed using CMS of Magento. Languages for this website were English & Dutch.
4. **Car Rental Booking Engine:** This task is a heart of this project. Under this task, following sub-tasks were done.
    4.1. Web Service Integration:
    4.2. Search Mask
    4.3. Search Result
    4.4. Select a Car
    4.5. Car Handover Page
5. **Location Data Dump + Scheduled Update:** We have created a local copy of all locations using the web service. To keep this local copy updated/refreshed, we have used same web service and run cron job / scheduled task at predefined time interval.

6. Location Based Landing Pages Management: This was custom module for development of SEO friendly city based Landing page generation

7. Location/ Country Message Management: This module will be used to display special message for particular location or country.

8. Products Attributes (Pictures and Names) Customization: This task was customization in Magento product catalog for product pictures and names. In search result product name and images were displayed based on combination of Continent. We had also created 88 products. This task includes customization for creation of other product attributes and customized calendar.

9. Pricing Rules Management: Using this module, site administrator would be able to set location wise price rules. When GetCar method is called to get availability of car, result will have cars with price and other attribute. This price will be updated for the selected location according to rule set using this module

10. FAQ Management: This module will be used to manage FAQs within categories. We have used Magento extension with customization. This section also included customization for light box effect (pop up).

11. Order Management: Order management was managed by API with following additions

    11.1. Payment Gateway Integration: we have integrated **Ogone Payment gateway** with the help of Magento extension

Objectives

1. To develop a car rental booking engine to provide car rental booking to different users.

2. To integrate an API in order process, this gains the commission for the client.

3. To develop the website in two languages – English and Dutch.

Project Approach / Activities

The Project was divided into various phases to achieve the best results in less time with optimal utilization of available resources.

1. Phase I: Feasibility Study

2. Phase II: System Requirement Study + SRS Preparation

3. Phase III: Design Integration (Graphics to HTML)

4. Phase IV: Magento Implementation + Customization + API Integration.

5. Phase V: Testing all features and making deployment plan.

*The website has been developed from the scratch.

Car Rental Booking Engine

Technology

Development Platform

Technology	Specifications
Technology & Framework	Magento-1.4.x
Languages	PHP 5+
Operating System	Linux
Database	MS SQL 4+
Web Server	Linux Server

Deployment Platform

Technology	Specifications
Technology & Framework	Magento-1.4.x
Languages	PHP 5+
Operating System	Linux
Database	MS SQL 4+
Web Server	Linux Server

Duration

1. Project Actual Efforts: 2860 Man Hours

2. Project Life Cycle: 90 Days
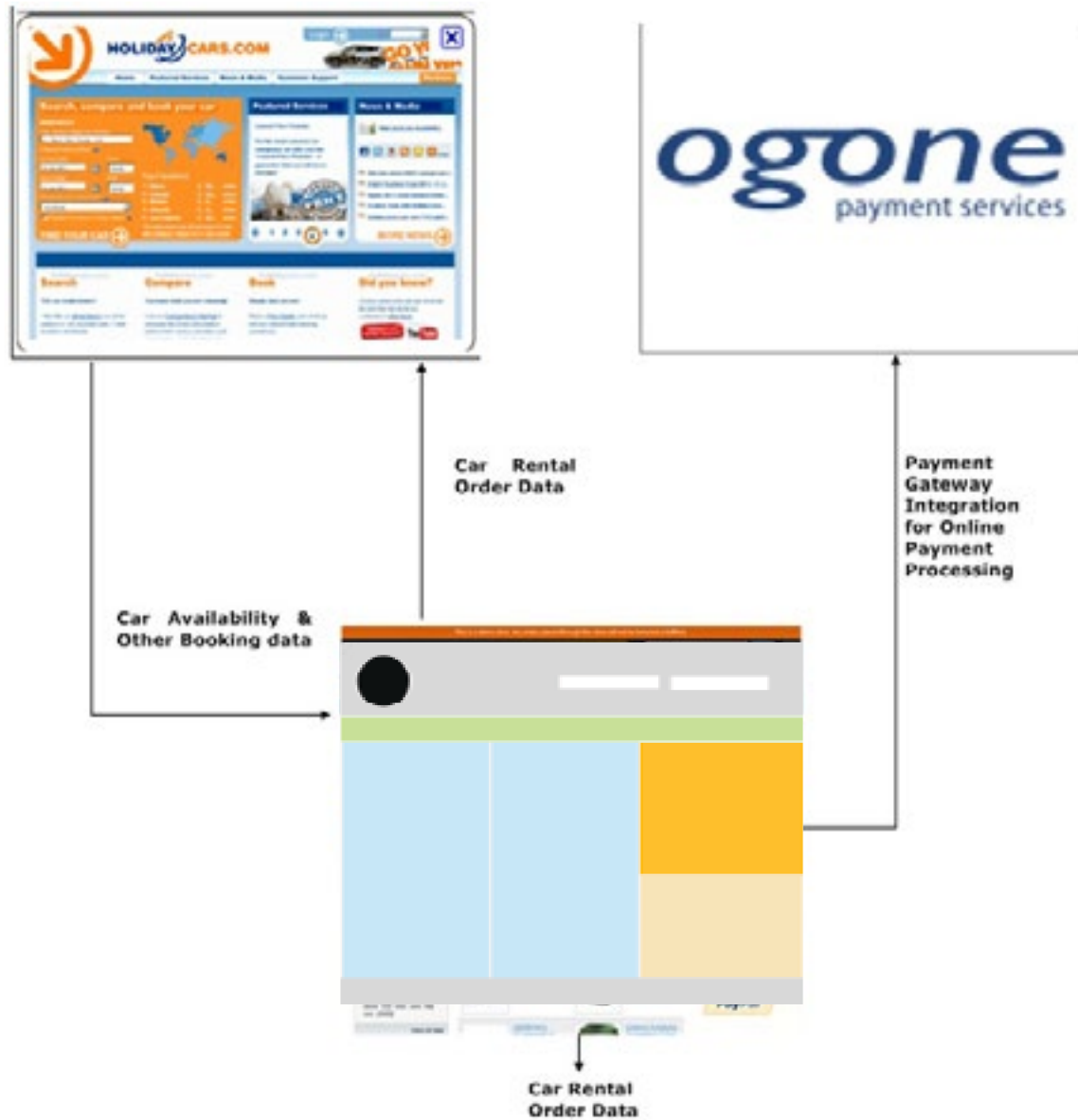
Results Achieved

Client is now making good business from the live website.

Key Challenges

1. **Product Data Synchronization:** Between Magento & API Provider We have assumed to create 88 products in Magento catalogue with Static + Variables parameters. These 88 products will be created based on combination of Different attributes. We have also created a UNIQUE SKU based on combination of these attributes. Web Service result would have at least one parameter to map / synchronize it with the product data in Magento catalogue.

2. **Performance & Tuning:** Based on research, we come to know that it will take around 20 seconds for car search result to load.

3. **Design:** Client wanted to have PIXEL to PIXEL level design integration.

4. **Multiple Language Implementation:** We have developed this website first in English and then in DUTCH language. Different language implementation is difficult in Magento especially when Magento based website has high level of customization.

Project Flowchart

Car Rental Order Data

Car Availability & Other Booking data

Payment Gateway Integration for Online Payment Processing

Car Rental Order Data

Deliver best products, software solutions and services, on time with quality, and as per customer expectations

About SilverTouch

SilverTouch, a company established in 1992 is widely accepted for its IT solutions with a huge customer base in more than 20 countries across the world.

SilverTouch is actively engaged in Enterprise software development, enterprise content management, document management and IT consulting services such as Business process optimization, process consulting, implementation and customization of ERP. SilverTouch leads brilliantly in new technical developments such as: Mobile Application development services on iPhone, iPad, Blackberry, Android, J2ME and Windows mobile platforms. Even now, SilverTouch helps its global clients for major developments, deployments and managements of their mobility solutions and enterprise application development programs.

SilverTouch has alliance with several industry leaders such as Microsoft, Apple, Cisco, IBM, Oracle, SAP, Java, Dell, VM ware, Symantec, Sonic Wall which provides a competitive edge over other industry peers and targets to understand and cater to all types of requirements that concern our clients, thereby, leading to serve them precisely to their satisfaction.

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