

Specialization: *Web Scraping & Data Intelligence*

Business Focus: **Hotel Management & Revenue Optimization**

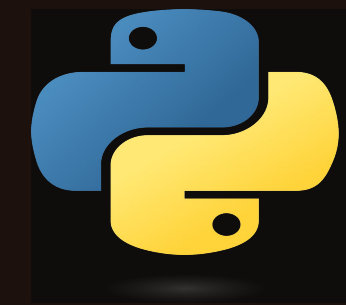
Tool: *Python, BeautifulSoup, Selenium, PostgreSQL*

Lodgify's Booking.com Data Intelligence Challenge — Optimizing Hotel Revenue

Project Learning Opportunities

Lodgify, a leading hotel management software company, provides an all-in-one platform designed to help hotel owners and managers create websites, manage bookings, and synchronize listings across multiple channels, including platforms like Booking.com. Their mission: leverage competitive market data, pricing intelligence, and booking trends to help small to medium-sized hotel operators optimize their revenue strategies, reduce dependence on third-party platforms.

Tools and Technology to be Used



Case Study Overview

Introduction to the Business

Lodgify is a comprehensive hotel management software company serving thousands of small to medium-sized hotel operators worldwide. The platform offers integrated tools for direct booking, payment processing, analytics, and automation, all aimed at streamlining hotel operations and improving guest experiences.

The company's mission is to provide reliable, user-friendly hotel management solutions while leveraging market intelligence to help clients optimize pricing strategies, predict booking trends, reduce commission dependencies, and enhance overall revenue performance. In today's highly competitive hospitality landscape, data-driven decision making is crucial for maintaining market competitiveness and maximizing occupancy rates.



Case Study Overview

Problem Statement

Lodgify's revenue optimization team faces several critical operational challenges:

- **Outdated Market Intelligence** - Hotel pricing and availability data from competitors on platforms like Booking.com is collected manually and sporadically, making it impossible to respond quickly to market changes or seasonal demand fluctuations.
- **Fragmented Market Data** - Without centralized, automated data collection from major booking platforms, cross-market analysis and historical trend identification for revenue optimization strategies are nearly impossible to execute effectively.

Rationale for the Project

(What is the Importance of the project to the business)

1.

1. Revenue Optimization & Growth

Prevents significant revenue loss by enabling dynamic pricing strategies based on real-time competitor data, identifying market opportunities, through systematic market intelligence gathering processes.

2.

Competitive Intelligence & Market Positioning

Improves market competitiveness and client retention by analyzing competitor pricing patterns, identifying market gaps, and understanding booking trend behaviors.

3.

Operational Efficiency & Automation

Ensures operational efficiency and reduces manual workload by maintaining automated, scalable data collection processes



Data Description

Booking.com, founded in 1996 in Amsterdam has grown to become one of the world's leading online travel agencies.

With more than 28 million listings, Booking.com provides travelers with extensive options across various price ranges and preferences. It is known for its user-friendly interface, robust search capabilities, and extensive customer reviews, which help users make informed decisions.

- URL: www.booking.com



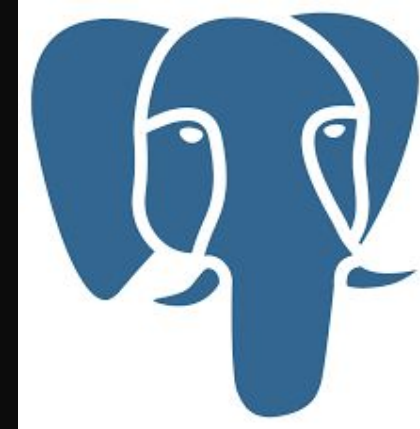
Tech Stack



BeautifulSoup



Python



PostgreSQL



Selenium

Project Workflow

STEP 1

Data Extraction from Booking.com

Develop a Python script to scrape data from Booking.com website, specifically from the Hotel category



STEP 2

Data Cleaning & Transformation

Clean and transform the scraped data to conform to a structured database model



STEP 3

Database Loading

Load the cleaned data into Lodgify's PostgreSQL database

**READY TO
DELVE IN?**

