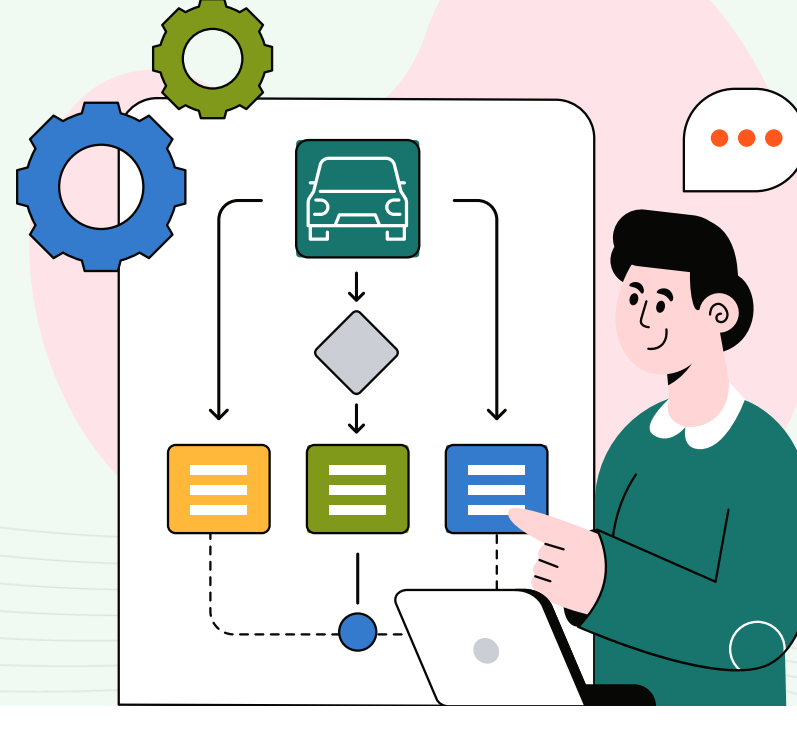


# Innovative Solutions for Vehicle Order and Pay-Off Workflow

In the ever-competitive automotive industry, streamlining workflows and leveraging automation are key to success. This case study details how Invimatic partnered with a leading automotive services company to achieve just that. We implemented a comprehensive workflow management system, integrated key services, and automated notification and valuation processes, significantly improving their vehicle sales and payoff operations.



## Challenges

- **Complex Workflows:** Managing vehicle sales inquiries and payoff requests required a standardized yet flexible workflow system.
- **Outdated Notification System:** The existing notification system lacked efficiency, hindering timely processing and communication.
- **Third-Party Integration:** Integrating with the Canadian Black Book (CBB) for accurate vehicle valuation was challenging due to inconsistent data handling and high service charges.
- **User Experience:** Providing a seamless and intuitive interface for users to submit inquiries and receive quotes was crucial.
- **Vehicle Type Differentiation:** Differentiating between general and fleet vehicles required tailored workflows and integrations to accommodate different data needs.

## Solution Offered

We partnered with the client to develop a user-friendly and efficient workflow management system. Here's how it transformed their operations:

### Vehicle Order Form (VOF) and Pay-Off Quote Workflow

- Developed workflows for both general and fleet vehicles, allowing users to inquire about selling either type of vehicle.
- Utilized a Questionnaire to gather necessary details, generating a PDF for user review.
- Structured the workflow into WorkflowGroups, StageGroups, and Stages with specific questions.

### Question Authoring

- Designed an authoring tool for creating and managing questions used in the workflow.
- Questions are categorized and linked to specific stages within the workflow.

### Workflow Setup

- Configured workflows that guide users through the vehicle sale and payoff inquiry processes.
- Each workflow consists of multiple stages with specific questions to gather relevant information.

### Workflow Group

- Grouped multiple related workflows into WorkflowGroups, allowing for easy management and assignment based on user requirements.

### Configuring Stage Groups

- Set up StageGroups within workflows, defining the sequence and conditions for each stage. Each StageGroup contains multiple stages with predefined questions.

### Questionnaire to PDF Mapping

- Implemented a system to map user responses from the questionnaire to a structured PDF document.
- The PDF is generated automatically at the end of the workflow for user review.

### Review Stage

- Added a review stage where users can examine the generated PDF and provide final approval or request modifications.

### Notification Engine

- Implemented a robust notification system using Azure Queue, ensuring timely messages and workflow progression.
- Messages were triggered upon completion of each stage, pushing notifications for the next steps.

### Generic Questions Answering Page

- Created a reusable form to handle various questions dynamically.
- This form interacted with the API to check for pending questions and notified users accordingly.

### Canadian Black Book (CBB) Integration

- Integrated CBB service to fetch and store vehicle valuation data, minimizing redundant queries.
- Stored detailed data including VIN, UnitID, various price points, and request metadata for efficient future queries.
- Implemented features to refresh data based on the latest data version, ensuring up-to-date valuations.

### Termination Charts by Field Admin and SAR

- Developed termination charts to be initiated by field administrators and Sales/Service Representatives (SARs).
- Enabled termination charts to track the status and details of vehicle payoff requests, ensuring comprehensive record-keeping and process transparency.

## Technical Stack



## Results



### Streamlined Workflow

- Simplified the vehicle payoff inquiry process, reducing manual effort and errors.
- Improved turnaround time for generating and approving payoff quotes.



### Enhanced Notification System

- Efficient stage-based notifications ensured timely communication and task progression.



### Improved Data Handling and Cost Efficiency

- Reduced service charges by minimizing redundant queries to the CBB service.
- Accurate and up-to-date vehicle valuations improved decision-making.



### User-Friendly Interface

- Intuitive forms and notifications enhanced the user experience, facilitating smooth interactions with the system.

## Conclusion

By partnering with Invimatic, client achieved significant improvements in workflow efficiency, data handling, and user satisfaction. Our solutions streamlined their operations, reduced costs, and provided a robust foundation for future growth and scalability. It shows Invimatic expertise in advanced technology to solve complex workflow and integration challenges, ultimately delivering a more efficient and user-friendly system.