

Parts Manager Conversation

Collaborate with your Parts Manager to answer the following questions. Use this opportunity to share new ideas from the class and to coach your Parts Manager on how they can be implemented. Be sure to respect their expertise. **Provide your answers in a different color font.**

1. What formal parts management training does your parts manager have (for example, the NADA Academy Seminar)? **ADMI Global parts operation classes.**
2. Does your Dealership/Parts department have a Vision statement that all departmental employees know and understand? What is it? **Yes we have a vision statement that all departmental employees know and understand, it is "To ensure the profitability of all departments by providing the correct part in the most time efficient way while ensuring overall profitability" our unofficial vision statement is "NO HAY PREGUNTAS PENDEJAS, SOLO PENDEJOS QUE NO PREGUNTAN" English translation "THERE ARE NO STUPID QUESTIONS, ONLY STUPID PEOPLE WHO DON'T ASK."**
3. Have you ever tracked your First Time Fill Rate (FTFR) manually (not using the DMS or your OEM)? What is your current Repair Order FTFR? **We have not manually tracked our FTFR, our DMS currently has the FTFR at 89%, however; this is misleading since it is taking into consideration oil and oil filters RO from our express lane, which skews the percentage in an upward direction, I am estimating that our current FTFR is at about 65% if we take out oil and oil filters out of the equation. After doing it manually I wasn't too far off, as we are at 61.45%**
4. What percentage of your business comes from Inside (RO/Internal/Warranty/Body Shop) vs Outside (Counter Retail & Wholesale)? **71% comes from RO/Internal/Warranty/Body Shop**
5. What policies, controls, and security are in place on your DMS (via Privileges and/or the Exception or Deviation Reports) to prevent counter people from changing the pricing structure during daily transactions? **Currently our policy dictates that no retail sales can be finalized for less than 35% over cost, wholesale sales no less than 21% over cost, currently counter people can override this parameters, when they show up on the exemption report and asked about it they must provide a good reason as to why it happened, if they can not provide one it come out of their commission.**
6. Who can change/override parts pricing? Cashier? Service Director/Manager? Service Advisors? **Counter salesmen and parts manager.**
7. Are you at Retail pricing for Internal? Who established your Internal parts pricing policies? Are they current? **We are not at retail for internal, internal policies where established by dealer principal to mimic outside competition such as Pep Boys, Advance Auto, etc.**

8. If you are in a Retail Reimbursement for Warranty state, are you at retail for warranty? If not, when was the last time you petitioned the OE for retail reimbursement? **We are at retail for warranty.**
9. Do the Parts, Service and Body Shop Managers work with the Office Manager/Controller monthly to follow up on all Work in Process (WIP) documents. Do they verify that all parts invoices and repair orders are closed out in a timely manner? What does this look like? **Yes, this effort involves a thorough review and follow-up on all outstanding parts invoices and repair orders. During these monthly meetings, the managers and the Office Manager/Controller verify that all parts used in ongoing repairs are accounted for, and that corresponding invoices are accurately documented and processed. They also ensure that repair orders are completed and closed out promptly, thereby preventing any backlog of unfinished work that could affect the dealers month's end financial reporting and/or operational efficiency. Our systematic approach maintains accurate financials and enhances workflow efficiency within the departments, ensuring that all processes are aligned with our dealership's standards and timelines.**
10. Is the financial statement for the Parts department given to the manager and discussed on a weekly/monthly basis? If not, is a daily operating report of sales, gross profit, etc., provided to the Parts Manager for review (DOC)? **Yes, financial statement is discussed with the parts manager on a monthly basis.**
11. What is your retail pricing strategy for your Parts department? How often do you check to see whether your pricing goals are being achieved? **We verify gross profit percentages by salespeople on a daily basis and identify price overrides and seek explanations as to why they happened.**
12. How often do you audit your dealership's Parts web page? How often are coupons, hours of business, etc., reviewed and updated? They are audited on a weekly basis at the start of the week. **We check the web site on a daily basis to ensure that information such as working hours, telephone numbers, and addresses are current.**
13. Do you have a Parts online eStore? How do you ensure that parts order forms/queries are responded to in a timely manner? Who gets the email leads/questions? **The emails are sent to the webpage account server and are verified daily by the internet sales staff, We verify them thru the Revolution parts website.**
14. What sales training is available to Parts personnel? If training is available, is it mandatory? How often are sales skills assessed, tested, and refreshed? **Phone training, parts catalog training for new hires during the onboarding process.**
15. Do you have a process to offer accessories to 100% of your New and Used customers? If so, what does it look like? If not, why not? **We currently use "dream card" catalogs to show the customer what his vehicle will look like, we also preload vehicles and display them in the**

showroom floor, we have a consignment agreement with an after market supplier to display their products on our showroom vehicles.

16. **What would help you sell more accessories?** Selling more accessories could be accomplished by implementing the practice of producing scannable QR code all-weather stickers to be placed on the lower right corner of the driver's side glass door of our customers vehicles at the moment of sale or when they come in for service. These stickers will read, "For accessories that fit this vehicle, scan this QR link or visit us at www.build-a-car.com." Scanning the QR code will direct customers to our e-store, where they can customize their vehicle and visualize changes in real-time, akin to the "Build-A-Bear" store experience. Additionally, the creation of YouTube infomercial videos that explaining the various accessories, with each video providing direct links to our e-commerce store. Finally, aggressively targeting individuals online who have been identified through affinity marketing campaigns, focusing on those who exhibit behavior indicating a high likelihood of purchasing vehicle accessories. This multi-faceted approach would enhance customer engagement and drive accessory sales effectively. Also, by implementing modifications to the current process of ordering vehicles from the factory would enhance the sales of vehicle accessories. Specifically, ordering vehicles without standard equipment and subsequently assembling specialized accessories at the dealership would significantly benefit accessory sales efforts. This approach would address cost concerns and facilitate bank financing at the point of sale. By allowing dealerships to order vehicles without standard components (e.g., front and rear bumpers), there would be an immediate cost saving. This reduction can be utilized to enhance customization options tailored to customer preferences at the dealership level. Moreover, if the factory permits dealers to add specialized accessories and include these in the vehicle's factory invoice, the entire cost (including accessories and installation) would be reflected in the vehicle's floor-planned value. Consequently, this ensures that the bank finances the full amount, thus overcoming the current limitation where financing is based only on the vehicle's factory-installed components, unless you call the bank rep and ask for an increase in the amount financed, what this modification would do is streamline the process and bypass the time consuming process of asking the bank for permission to increase the finance amount, or ask the customer to put it on their credit card, etc. Implementing a holdback amount to cover the costs of accessories and their installation would ensure that the vehicle's final sale price, inclusive of all add-ons, is fully financed. This approach simplifies the sales process and maintains the gross profit margin since it eliminates the need for managers to negotiate on factory-installed accessories. This strategy also addresses the psychological barrier in sales negotiations. Customers typically do not request factory installed items to be included at no additional cost. By shifting the installation of these accessories to the dealership, we create a more flexible and attractive offering that is easier to manage and promote. To implement this, we would need to engage in discussions with vehicle manufacturers to establish the feasibility and processes required for ordering vehicles without certain standard parts, work with financial institutions to ensure that the updated invoicing, which includes accessories and installation costs, is accepted and financed accordingly, and train dealership staff on the new processes and benefits, emphasizing the streamlined financing and sales approach. This proposal aims to streamline accessory sales, enhance customization options for customers, and improve

overall financial efficiency. I believe this approach would significantly boost accessory sales and provide a better customer experience.

17. Do you review your wholesale customers to see if their sales, gross, and returns justify the expense of conducting business with them? How often are they reviewed? *Yes, we take into consideration sales, gross, and how much they have returned YTD, as our policy states, we do not offer returns on special order parts dispatched correctly.*
18. Do you know how much each of your Parts salespeople must sell each day just to breakeven? *Yes, we know how much each parts salespeople need to sell each day.*
19. What procedures do you have in place to ensure inventory accuracy and integrity? How are variances communicated to the accounting office? *We do monthly spot checks, and an annual complete inventory, in the case of variances, the warehouse manager, parts manager, and general manager need to sign off of the variance and notify the controller and dealer principal.*
20. Are lost sales being tracked in your DMS? Do you have a common definition that all counter people understand? What is your definition? *Lost sales are tracked and we have given clear definitions of what constitutes a lost sale to salespeople.*
21. What is the biggest obstacle to getting your Special Order parts off the SOP shelves and installed/picked up? *Shops not wanting to take delivery of parts unless the entire order is complete, customers not coming in to get the parts installed.*
22. In your store, what do you feel is the biggest cause of frozen capital and/or obsolescence? What is the current dollar value of your obsolescence? *Collision centers and independent shops not wanting to take delivery of parts until the entire order is received, this creates a challenging situation because you can have a 5,000 worth in parts sitting in our warehouse for 2 months waiting for a 200 dollar part that is on back order*
23. What is your phase in/phase out strategy? How do you balance this strategy with factory recommended stocking guidelines (RIM, ARO, Parts Eye, etc.)? *We phase in at 3-12 and phase out at 3-12, we are contemplating phasing in at 3-18 as a strategy to increase FTFR in our service department, we take "factory recommendations" for what they are at face value which is just that "recommendations", in our case we check ARO every Monday, Wednesday, and Friday, and disapprove every recommendation before they are "time out approved" in 5 days, even though the "recommendations" are only supposed to be uploaded to DealerConnect Wednesdays, we want to make sure nothing gets time out approved, we print out the recommendation and pick out what we want to order.*
24. On a scale of 1-10 (10 = expert level) what is your level of understanding of the information that is on your DMS's monthly summary? *10*

25. What is the one thing that your organization can do or provide to help the Parts Manager do their job more effectively? Our organization must invest in more training and education, we must start to view the parts department and service department as one and strive to make both departments work as one if we expect them to perform at the highest level, we must provide them with highest level of training. Implementing more AI automation into the administrative side of the parts department operation such as payroll, parts order receiving verification, submitting short and/or damage claims to the manufacturer, etc. can also alleviate the parts managers workload, which will in turn increase his available time so it can be invested in more productive activities such as retention of large wholesale accounts, new account acquisitions, etc. I am also working on an ambitious AI parts advisor chatbot project still in conceptual phase that could help immensely our parts department in increasing customer satisfaction and parts sales, this is an actionable plan for an Automotive Parts Consultation AI Chatbot an advanced AI chatbot tailored specifically for automotive parts consultation. This innovative solution aims to enhance customer experience by providing seamless interaction, accurate identification of parts, and streamlined purchasing processes. The chatbot should enable customers to engage via text, submit images of parts for identification, and receive prompt assistance in finding and purchasing the required components. Leveraging cutting-edge AI technologies, this chatbot will revolutionize the way customers interact with our dealership's automotive parts platform, driving efficiency and customer satisfaction. Below are several suggestions on how the project could be accomplished:

1. Natural Language Understanding (NLU): Develop NLU models to understand customer queries about automobile parts. This involves training the AI to recognize intents (e.g., inquiries about specific parts), entities (e.g., part names, vehicle models), and context (e.g., customer preferences).
2. Image Recognition: Integrate image recognition capabilities into the chatbot to process images sent by customers. This involves training machine learning models to identify automobile parts from images.
3. Part Identification: Implement logic to match customer queries or images with the appropriate automobile parts. This could involve querying a database of parts based on part numbers, descriptions, or images.
4. E-commerce Integration: Integrate the chatbot with an e-commerce platform where customers can purchase automobile parts. Provide links or guided pathways within the chatbot interface for customers to complete their purchases seamlessly.
5. Feedback Loop: Implement mechanisms for continuous learning and improvement. Collect feedback from customer interactions to refine the chatbot's understanding and accuracy over time.

6. **Security and Privacy:** Ensure that the chatbot handles customer data securely and complies with privacy regulations, especially when dealing with sensitive information like images of automobile parts.

7. **Testing and Evaluation:** Thoroughly test the chatbot across various scenarios to ensure it performs reliably and accurately. Evaluate its performance based on metrics like accuracy, response time, and customer satisfaction.

By following these steps, you can develop an AI chatbot that serves as a knowledgeable and efficient automobile parts advisor, assisting customers with their inquiries and facilitating the purchasing process.

To create the AI chatbot automobile parts advisor with the capabilities described, the following combination of programming languages and tools could be used:

1. **Python:** Python is a versatile language commonly used for AI and natural language processing tasks. You can use libraries like TensorFlow, PyTorch, or Scikit-learn for machine learning and NLP tasks.

2. **Natural Language Processing (NLP) Libraries:** Libraries like NLTK (Natural Language Toolkit) and spaCy can be used for text processing, entity recognition, and sentiment analysis.

3. **Image Recognition Frameworks:** For image recognition capabilities, frameworks like TensorFlow, PyTorch, or OpenCV can be used to train and deploy machine learning models for image classification.

4. **Chatbot Frameworks:** Frameworks like Rasa or Dialogflow provide tools and APIs for building conversational AI chatbots. They offer features like intent recognition, entity extraction, and dialogue management.

5. **E-commerce Integration:** Depending on the e-commerce platform you're using, you may need to utilize APIs provided by platforms like Shopify, WooCommerce, or Magento to integrate the chatbot with your online store.

6. **Database Management:** Use database technologies like SQL or NoSQL databases (e.g., MySQL, MongoDB) to store and retrieve information about automobile parts, customer preferences, and purchase history.

7. **Web Development:** If the chatbot will be deployed on a website, you may need web development skills using HTML, CSS, and JavaScript for creating the user interface and integrating the chatbot.

8. Cloud Services: Cloud platforms like AWS, Google Cloud Platform, or Microsoft Azure provide services for hosting, deploying, and scaling AI chatbots. You can leverage services like AWS Lambda, Google Cloud Functions, or Azure Functions for serverless deployment.

By leveraging these programming languages and tools, you can build a robust and feature-rich AI chatbot automobile parts advisor that effectively assists customers in finding and purchasing the parts they need.

Creating the full code for an AI chatbot automobile parts advisor with the described functionalities would require a significant amount of code and detailed implementation. However, this is a simplified outline of how the code might be structured using Python and some of the mentioned libraries:

```
```python
import nltk
from nltk.tokenize import word_tokenize
from nltk.corpus import stopwords
from nltk.stem import WordNetLemmatizer
import tensorflow as tf
import numpy as np
import cv2

Initialize NLP tools
nltk.download('punkt')
nltk.download('wordnet')
nltk.download('stopwords')
stop_words = set(stopwords.words('english'))
lemmatizer = WordNetLemmatizer()

Preprocess text input
def preprocess_text(text):
 tokens = word_tokenize(text)
 tokens = [lemmatizer.lemmatize(word.lower()) for word in tokens if word.isalnum()]
 tokens = [word for word in tokens if not word in stop_words]
 return tokens

Load and preprocess image for image recognition
def preprocess_image(image_path):
 # Use OpenCV or other library to load and preprocess the image
 # Example:
 image = cv2.imread(image_path)
 # Preprocess image (resize, normalize, etc.)
 return preprocessed_image

Load machine learning model for text classification
```

```

text_model = tf.keras.models.load_model('text_model.h5')

Load machine learning model for image classification
image_model = tf.keras.models.load_model('image_model.h5')

Function to classify text input
def classify_text(text):
 preprocessed_text = preprocess_text(text)
 # Use machine learning model to classify text input
 # Example:
 predictions = text_model.predict(np.array([preprocessed_text]))
 return predictions

Function to classify image input
def classify_image(image_path):
 preprocessed_image = preprocess_image(image_path)
 # Use machine learning model to classify image input
 # Example:
 predictions = image_model.predict(np.array([preprocessed_image]))
 return predictions

Function to integrate with e-commerce platform and send link to customer
def send_link_to_customer(link):
 # Implement logic to send link to customer via email, SMS, or chat interface
 pass

Main function to interact with customer
def main():
 # Get text input from customer
 text_input = input("Please describe the automobile part you're looking for: ")
 # Classify text input
 text_predictions = classify_text(text_input)
 # Get image input from customer
 image_path = input("Please upload an image of the automobile part: ")
 # Classify image input
 image_predictions = classify_image(image_path)
 # Determine the most relevant prediction based on text and image classification
 # Example:
 relevant_prediction = select_relevant_prediction(text_predictions, image_predictions)
 # Generate link to relevant part on e-commerce platform
 part_link = generate_part_link(relevant_prediction)
 # Send link to customer
 send_link_to_customer(part_link)

```

```
if __name__ == "__main__":
 main()
...
```

This is a simplified example of how the code might be structured. The programming would need to implement the functions `select\_relevant\_prediction`, `generate\_part\_link`, and `send\_link\_to\_customer` according to the projects specific requirements and integrate them with the chosen e-commerce platform. Additionally, developers would need to train machine learning models for text and image classification using appropriate datasets. There are several code libraries and frameworks that can help in developing an AI chatbot for automobile parts advice with the described functionalities. Some of the key libraries and frameworks include:

#### 1. Natural Language Processing (NLP) Libraries:

- NLTK (Natural Language Toolkit): A leading platform for building Python programs to work with human language data.
- SpaCy: An open-source NLP library designed to help build NLP applications.
- Gensim: A library for topic modeling, document indexing, and similarity retrieval with large corpora.

#### 2. Deep Learning Frameworks:

- TensorFlow: An open-source machine learning framework developed by Google for building and training deep learning models.
- PyTorch: An open-source machine learning library developed by Facebook's AI Research lab that offers easy-to-use APIs and provides dynamic computational graphs.

#### 3. Computer Vision Libraries:

- OpenCV (Open Source Computer Vision Library): A library of programming functions for real-time computer vision.
  - TensorFlow Object Detection API: A framework built on TensorFlow that makes it easy to construct, train, and deploy object detection models.

#### 4. Web Development Frameworks:

- Flask: A lightweight WSGI web application framework in Python that is ideal for building small to medium-sized web applications.
- Django: A high-level Python web framework that encourages rapid development and clean, pragmatic design.

#### 5. Image Recognition Libraries:

- Keras: A high-level neural networks API written in Python that runs on top of TensorFlow, Theano, or CNTK. It is ideal for fast experimentation with deep neural networks.
- PyTorch Lightning: A lightweight PyTorch wrapper for high-performance deep learning research. It enables you to easily structure your code and train models at scale.

These libraries and frameworks provide a solid foundation for building an AI chatbot for automobile parts advice, allowing you to implement natural language processing, image recognition, and integration with web services efficiently.

Here's an example of what the code might look like for implementing the Unet algorithm for automotive parts image identification using semantic segmentation:

```
``python
import tensorflow as tf
from tensorflow.keras.layers import Conv2D, MaxPooling2D, Dropout, Conv2DTranspose,
concatenate
from tensorflow.keras.models import Model

def unet_model(input_shape, num_classes):
 inputs = tf.keras.Input(shape=input_shape)

 # Encoder
 conv1 = Conv2D(64, 3, activation='relu', padding='same', kernel_initializer='he_normal')
(conv1)
 conv1 = Conv2D(64, 3, activation='relu', padding='same', kernel_initializer='he_normal')
(conv1)
 pool1 = MaxPooling2D(pool_size=(2, 2))(conv1)

 conv2 = Conv2D(128, 3, activation='relu', padding='same', kernel_initializer='he_normal')
(pool1)
 conv2 = Conv2D(128, 3, activation='relu', padding='same', kernel_initializer='he_normal')
(conv2)
 pool2 = MaxPooling2D(pool_size=(2, 2))(conv2)

 # Bottleneck
 conv3 = Conv2D(256, 3, activation='relu', padding='same', kernel_initializer='he_normal')
(pool2)
 conv3 = Conv2D(256, 3, activation='relu', padding='same', kernel_initializer='he_normal')
(conv3)

 # Decoder
 up4 = Conv2DTranspose(128, (2, 2), strides=(2, 2), padding='same')(conv3)
 up4 = concatenate([up4, conv2], axis=3)
 conv4 = Conv2D(128, 3, activation='relu', padding='same', kernel_initializer='he_normal')
(up4)
 conv4 = Conv2D(128, 3, activation='relu', padding='same', kernel_initializer='he_normal')
(conv4)

 up5 = Conv2DTranspose(64, (2, 2), strides=(2, 2), padding='same')(conv4)
 up5 = concatenate([up5, conv1], axis=3)
```

```

 conv5 = Conv2D(64, 3, activation='relu', padding='same', kernel_initializer='he_normal')
(up5)
 conv5 = Conv2D(64, 3, activation='relu', padding='same', kernel_initializer='he_normal')
(conv5)

Output
outputs = Conv2D(num_classes, 1, activation='softmax')(conv5)

model = Model(inputs=[inputs], outputs=[outputs])
return model

Define input shape and number of classes
input_shape = (256, 256, 3) # Example input shape
num_classes = 10 # Example number of classes (car parts)

Create the Unet model
model = unet_model(input_shape, num_classes)

Compile the model
model.compile(optimizer='adam', loss='categorical_crossentropy', metrics=['accuracy'])

Train the model with your dataset
model.fit(X_train, y_train, epochs=10, batch_size=32, validation_data=(X_val, y_val))
'''

```

This code defines a basic Unet model for semantic segmentation of automotive parts images. You would need to replace `X\_train`, `y\_train`, `X\_val`, and `y\_val` with your actual training and validation data. Additionally, developers may need to adjust the model architecture and parameters based on specific requirements and dataset characteristics.