Use Case Document: Automated Ticket Categorization

Introduction

The purpose of this use case is to leverage machine learning and artificial intelligence to enhance the categorization and assignment process of ServiceNow tickets. By automating this process, organizations can achieve more granular and efficient ticket categorization, leading to improved reporting and continuous improvement.

Use Case Description

The use case involves implementing machine learning and AI algorithms to analyze and categorize ServiceNow tickets into three-tier categories. The goal is to automate the assignment process and provide accurate categorization for better reporting and decision-making.

Current Process

Currently, the ticket categorization and assignment process is carried out manually by human agents. This process requires effort and time to analyze each ticket and assign it to the appropriate category or assignment group.

Business Constraints

Several business constraints need to be considered for this use case:

1. Continuous Improvement: The initial goal is to use machine learning models to assist with reporting and continuously improve the ticket categorization process.

2. Existing Data Requirement: The existing dataset needs to be utilized to train the machine learning model and continuously analyze its performance.

3. Structured Data: The availability of structured data is vital for building accurate machine learning models. The dataset should include individual components of the ticket and the final assigned categories.

4. AI-Powered Categorization: The aim is to leverage AI algorithms to evaluate and categorize tickets into three-tier categories, enhancing the efficiency and accuracy of the assignment process.

Success Criteria

The success criteria for this use case are as follows:

- Provide reporting to support continuous improvement efforts.

- Generate suggestive categories for tickets and obtain agreement from the audience.

- Achieve a minimum accuracy of 20% for the model.

- Attain an accuracy of 81 to consider the model successful.

Dataset Information

The dataset used for training and evaluating the machine learning model should contain structured data in a tabular format. It should include individual components of the ticket and the corresponding assigned categories.

Unit of Analysis

The unit of analysis in this use case is the ServiceNow tickets. Each ticket will be analyzed by the machine learning model to determine the appropriate category or assignment group.

Target Features

Based on the provided context, the target feature for the machine learning model is not explicitly mentioned. However, the focus is on categorizing tickets into three-tier categories using AI algorithms. The specific target feature may involve the assignment group or category assigned to each ticket.

Prediction Plan

The desired prediction frequency and retention duration for the model's output are not explicitly mentioned in the provided context. Further discussion and clarification are required to determine the optimal prediction plan and data retention strategy.