# Project: Inventory Monitoring at Distribution Centers

## Domain Background

The employment of robots for stock management in logistic planning grows constantly in distribution centers daily operations. Goods are moved by robots in bins that can contain from one to several items. This project takes that into consideration and uses this trend to propose a usage of Machine Learning (ML) techniques to optimize logistic operations involving robots.

A robot that is able to count the number of items in each bin it moves would improve stock management. And the ML engineer with experience with that kind on machine vision skill can be an asset for companies.

## Problem Statement

The problem I intend to solve in this project is the creation of a ML model capable of identifying the number of different items in an image presented to it.

My planned workflow for the resolution of this problem is:

* Creation of an ETL Pipeline in order to obtain data from the Amazon Bin Dataset, process and load it to an S3 bucket;
* Train a ML vision model using the database previously created;
* Using AWS tools, make sure the best practices are being employed and the processes are cost effective.

## Solution Statement

## Datasets and Inputs

## Benchmark Model

## Evaluation Metrics

## Project Design