## Lab 5-03: Image Recognition with Amazon Rekognition

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| **Introduction**  Amazon Rekognition is an AWS service that uses deep learning to analyze images and videos for object detection, face recognition, scene understanding, and content moderation. It allows you to easily build applications that can “see” and interpret images without needing to train complex machine learning models. With just a few clicks or lines of code, you can upload an image and get details such as the people, objects, emotions, or text detected in that image.  **Challenge**  A company’s security team wants to automatically identify people and objects captured by security cameras in real-time. They want to detect whether an image contains a specific person, find objects like “cars” or “bags,” and identify if the image contains any inappropriate content. Building such an image recognition model from scratch would require massive data and training. The team decides to use Amazon Rekognition to quickly analyze and extract insights from images stored in an Amazon S3 bucket, all without building or managing their own AI models.  **Lab Diagram**  **C:\Users\Binary Computers\Downloads\5d99295c-4f5e-4e10-827a-0afef1d6d201.jpg**  **Solution**  **Step 1: Sign in to AWS**   1. Go to <https://aws.amazon.com>. 2. Sign in with your AWS account credentials.   **Step 2: Open Amazon Rekognition Console**   1. In the AWS search bar at the top, type “Rekognition”.      1. Click on Amazon Rekognition from the results to open the service dashboard.     **Step 3: Access the “Image Analysis” Demo**   1. On the left-hand side menu, click Label detection.      1. You will see a simple interface to upload and analyze images directly from your browser.     **Step 4: Upload an Image for Analysis**   1. Click Upload or drag and drop.      1. Choose an image from your computer (for example, person.jpg or city.jpg).      1. Wait for the image to load in the preview window.     **Step 5: View Detected Labels**   1. After uploading, Rekognition automatically detects objects, people, scenes, and activities in the image. You will see results like:    * Person, 99% confidence    * Car, 94% confidence    * Building, 88% confidence      1. These are called labels; they describe what Rekognition “sees” in your image.     **Step 8: Review and Interpret Results**   1. The service provides a confidence score for each detected item (higher = more accurate).      1. Use this information in your application, for example, trigger an alert when “person” or “vehicle” appears in a security image. |