PROJECT DESIGN PHASE
SOLUTION ARCHITECTURE

DATE	20 JUNE 2025
TEAM ID	LTVIP2025TMID51460
PROJECT NAME	COSMETIC INSIGHTS: NAVIGATING COSMETICS TREND AND CONSUMER INSIGHTS WITH TABLEAU
MAXIMUM MARKS	2 MARKS

SOLUTION ARCHITECTURE:

The solution architecture diagram for the Cosmetic Insights application illustrates how a user's face photo, captured via a phone or laptop, is used to generate personalized skincare analysis.

The image is either uploaded directly to a laptop for processing or sent to an Amazon S3 bucket, as shown in Report Option A.

Once the image is stored, it triggers an AWS Lambda function for inference, which analyses the photo to extract insights such as age, skin conditions, or cosmetic recommendations.

The processed results are stored again, and the Key Management Service ensures all sensitive data is securely encrypted. This system provides a streamlined and secure workflow for cosmetic data collection and analysis.
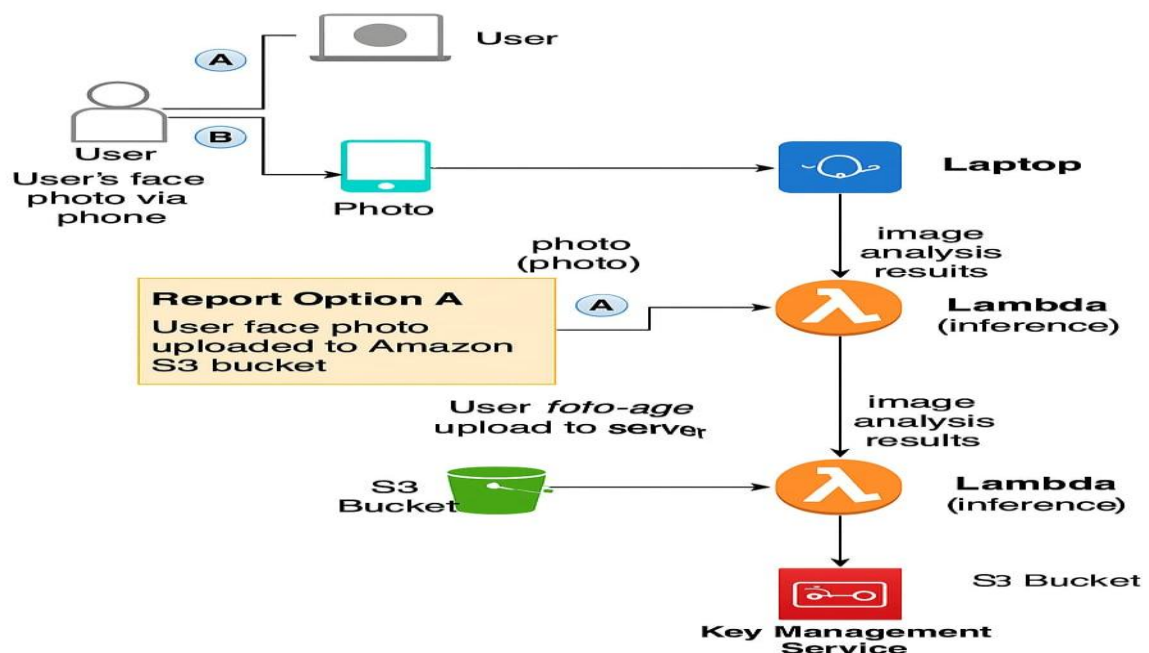

Figure 1: Architecture and data flow of the cosmetic insights sample application