Task 2

Cosine similarity between text and image features

A screenshot of a computer

Description automatically generated

* Cosine Similarity Matrix: This heatmap shows the cosine similarity scores between image attributes (columns) and textual descriptions (rows), indicating how well each description corresponds to each image.
* Color Coding: Lighter colors indicate higher similarity scores, which range from roughly 0.09 to 0.30, signifying different levels of alignment.
* Notable Matches: Certain text-image pairs have the greatest similarity ratings (0.27 and 0.30, respectively), indicating substantial correlation. Examples of these pairs include the descriptions of "a clock with no numbers attached to a wall" and "a group of people on a ski slope

A screenshot of a graph

Description automatically generated

* Probability-Based Object Detection: A bar chart showing the probability scores for various objects found in each image shows the model's confidence for each potential object class.
* Diverse Contexts: The pictures demonstrate the model's adaptability to a variety of situations by showcasing both interior and outdoor environments, such as a laptop on a table or a bathroom, as well as people on a ski slope.
* Top Forecasts: The model's greatest matches in object recognition are reflected in each scene, where the highest-probability predictions match prominent things in the pictures (for example, "clock" for the wall clock, "mountain" for the ski slope, and "bed" for a bedroom scenario).