

Project Design Phase-I
Solution Architecture

Date	01-11-2023
Team ID	Team-591719
Project Name	Project -Image Caption Generation
Maximum Marks	4 Marks

Solution Architecture:

Our innovative image caption generator project employs advanced deep learning techniques, utilizing Convolutional Neural Networks (CNNs) and Long Short-Term Memory (LSTM) networks. By processing large and diverse datasets with substantial computational resources, our goal is to create a state-of-the-art model capable of understanding image content and generating coherent and contextually relevant captions for photographs. The project involves preprocessing and feature extraction, enabling CNNs to extract vital visual features, followed by LSTM-driven language generation. Rigorous evaluation and benchmarking ensure superior performance, with a Python-based implementation for accessibility. With broad applications in content generation, accessibility enhancements, image indexing, and more, our project aims to bridge the gap between visual and textual understanding, offering a versatile and impactful solution in the realm of deep learning.

Solution Architecture Diagram:

