

Project Design Phase-I

Solution Architecture

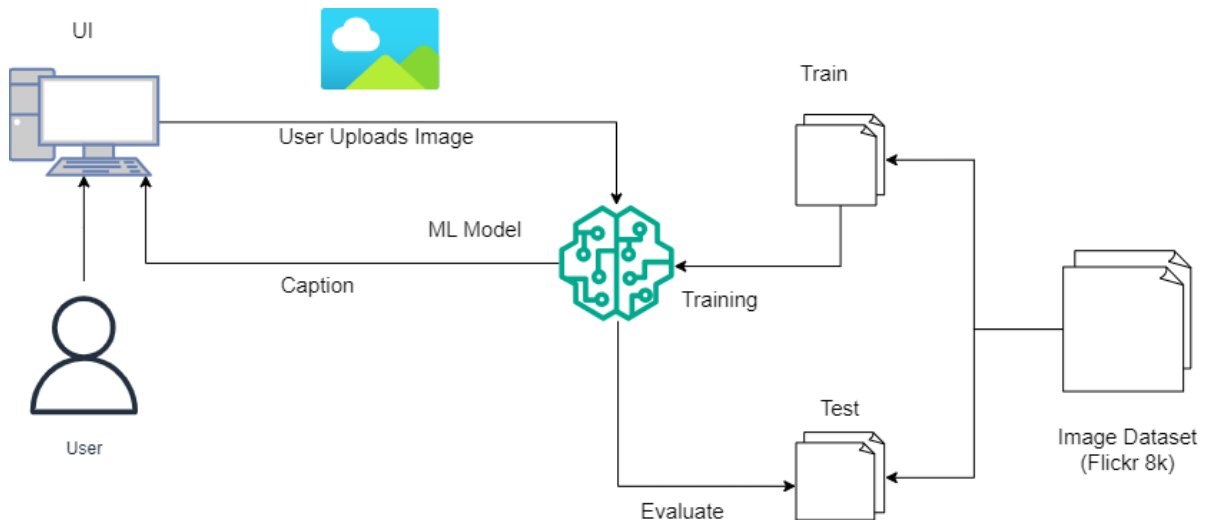
Date
Project Name
Maximum Marks

23 October 2023
Project - Image Caption Detection
4 Marks

Solution Architecture:

The architecture for an image caption generator involves collecting and preprocessing image and caption data, using a pretrained CNN to extract image features, implementing a caption generation model like an RNN or transformer, training the model on image-caption pairs, deploying it as an API for captioning, and developing a user interface for users to interact with the system. Regular evaluation and optimization, along with privacy and security measures, ensure that the generator produces high-quality captions while safeguarding sensitive information.

Solution Architecture Diagram:



To host your image caption generator on AWS, use EC2 or serverless for model deployment, store data in Amazon S3, create an API with API Gateway, and ensure security with IAM. Monitor using CloudWatch, maintain high availability with Auto Scaling, and consider geographic redundancy. Optimize costs and ensure compliance with regulations for data handling.