KHAN INSTITUTE OF COMPUTER SCIENCE AND INFORMATION TECHNOLOGY (KICSIT)

Department of Computer Science

PROJECT REPORT

AI-Based Document Summarizer for Android

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Abstract

This project presents the development of an **AI-Based Document Summarizer for Android**, in which Artificial Intelligence is directly integrated with an Android application to process documents efficiently.

In addition to summarization, the system supports a **Document Question Answering feature**, allowing users to ask questions related to uploaded documents and receive accurate AI-generated answers.

The application is developed using Android Studio with Java/Kotlin, while the AI backend processes document text and returns summaries and answers to the Android application.

Contents

Q.1: Introduction

Overview of the Project

An AI-Based Document Summarizer is a mobile application that generates short summaries from long documents such as study material and research papers using Artificial Intelligence.

Problem Statement

Mobile users face difficulty reading lengthy documents on small screens, which consumes time and effort.

Motivation

The motivation behind this project is to apply AI in a real-world Android application to reduce reading time and improve productivity.

Objectives

- Develop an Android application for document summarization
- Allow PDF and text file upload
- Generate AI-based summaries
- Enable document-based question answering
- Provide a simple user interface

Q.2: Literature Review / Background

Existing summarization tools are mostly web-based and require constant internet access. This project provides a simple Android-based AI solution.

Q.3: System Analysis

Problem Definition

Reading large documents on mobile devices is inefficient without automation.

Proposed Solution

An Android application integrated with AI for summarization and question answering.

Scope

Included:

- PDF and text upload
- AI summarization
- Question answering

Not Included:

- Language translation
- Document editing

Q.4: System Design

Architecture

Client–Server or On-device architecture.

Data Handling

Temporary storage for documents and summaries.

User Interface

Home Screen, Upload Screen, Summary Screen, Settings Screen.

Q.5: Technologies Used

Android: Java, Kotlin, XML

AI: AI-based summarization model, REST API

Tools: Android Studio, Emulator

Q.6: Implementation

Modules include document upload, AI processing, question answering, and result display.

Q.7: Testing

Input	Expected Output	Result
Upload PDF	File loaded successfully	Pass
Generate Summary	Summary displayed	Pass
Ask Question	Correct answer returned	Pass

Q.8: Results and Discussion

The application successfully summarizes documents and answers user questions, reducing reading time.

Q.9: Limitations

Summarization accuracy depends on document size and device resources.

Q.10: Future Enhancements

Offline AI, multi-language support, voice input.

Q.11: Conclusion

The project demonstrates successful AI and Android integration for document summarization and question answering.