

MES COLLEGE OF ENGINEERING-KUTTIPPURAM
DEPARTMENT OF COMPUTER APPLICATIONS
20MCA245– MINI PROJECT

Mini Project Proposal (III Semester MCA)

- Approval of the mini project proposal is mandatory to continue and submit the project work.
- The mini project proposal should clearly state the project objectives and the environment of the proposed project to be undertaken.
- The following documents should be submitted for approval:
 1. Pro-forma for approval of the mini project (Present in this document)
 2. Synopsis/Abstract with following contents
 - i. Title of the Mini Project.
 - ii. Introduction and Objectives of the Project.
 - iii. Tools / Platform, Hardware and Software Requirement
 - iv. Problem Definition and Initial Requirements
 - v. Basic functionalities of the project

THE ABSTRACTS SHOULD BE SUBMITTED ON OR BEFORE 29.07.2024

Note: At least **3 topics** should be submitted, ordering them according to your preference.

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PRO FORMA FOR THE APPROVAL OF THE THIRD SEMESTER MINI PROJECT

(Note: All entries of the pro forma for approval should be filled up with appropriate and complete information. Incomplete Pro forma of approval in any respect will be rejected.)

Mini Project Proposal No: _____
(Filled by the Department)

Academic Year : _____
Year of Admission : _____

1. Title of the Project : _____
2. Name of the Guide : _____
3. Register Number of the Student: MES23MCA-2024 _____
4. Student Details (in BLOCK LETTERS)

Name	Roll Number	Signature
_____ LAYA SIMON _____	_____ 24 _____	_____

Date: _____

Approval Status: Approved / Not

Approved Signature of
Committee Members

Comments of the Mini Project Guide

Dated

Signature Initial Submission

:

First Review :

Second Review :

Comments of the Project Coordinator

Dated

Signature Initial Submission:

First Review

Second Review

Final Comments:

Dated Signature of HOD

FLIPKART PRICE ALERT SYSTEM

- **INTRODUCTION**

E-commerce platforms like Flipkart often have dynamic pricing and product availability, which can change frequently. Consumers looking for the best deals or specific products can benefit from a system that monitors these changes and sends timely alerts. This project involves creating a Flipkart Alert System to notify users when a product's price drops below a certain threshold.

- **OBJECTIVES**

The core objective of this project is to alert the customer the availability of desired product in desired price. System track the specific product price on Flipkart. Notify the customer through email when the price drop below a predefined threshold. It help the customer to get the product in desired price.

- **PROBLEM DEFINITION**

In the evolving e-commerce websites, consumers face the challenge of tracking price changes for products they are interested in. Specifically, platforms like Flipkart, prices for products can fluctuate frequently due to sales, discounts, and other market factors. For users who wish to take advantage of these fluctuations, manually checking prices regularly can be time-consuming and inefficient. Therefore, there is a need for an automated system that monitors product prices and alerts users when specific conditions, such as price drops. This system aims to met this requirment of a consumer in an effective manner.

- **BASIC FUNCTIOBALITIES**

Allow the user to specify the URL of the Flipkart product they want to monitor and track the price of specified product. Allow the user to set a price threshold below which an alert should be triggered. Define the price point at which notifications should be sent. Track the price and if the current price meets the condition for sending an alert.

- **MODULES**

- **Configuration**

- This module manage and store configuration settings required for the system to operate, such as product URLs, price thresholds, and email details.

- **Web Scraping**

- To extract product price information from the Flipkart webpage.

- **Price comparison**

- Compares the current product price with the predefined threshold value.

- **Alert**

- To handle the alerting mechanism when a price drop is detected.

- **User**

- A interface where users can input product URLs, price thresholds, and email details.

- **TOOLS/PLATFORM**

- **Hardware Specification**

- Processor: Dual core above
 - RAM: Minimum 4 GB of RAM
 - Network: Internet connection for web scraping and email communication.

- **Software Specification**

- Python
 - Visual Studio Code
 - Libraries and Packages for Web Scraping, Email handling

GENDER AND AGE DETECTING SYSTEM

- **INTRODUCTION**

Gender and age detection are two significant aspects of facial analysis with a wide range of applications. The ability to accurately identify gender and estimate age from images can provide valuable insights and enhance interactions in various domains. For instance, businesses can tailor their marketing efforts based on demographic insights, while security systems can use age and gender detection to enhance surveillance capabilities.

- **OBJECTIVES**

System is of classifying the gender of an individual as either male or female based on facial images and also estimate the age of an individual from their facial features. This system is very useful in real world in security, business strategy

- **PROBLEM DEFINITION**

The Gender and Age Detection system addresses several critical needs across different domains. By providing accurate and real-time demographic insights, the system enhances user experiences, enables targeted marketing, improves security, facilitates research, and contributes to technological advancement. Its implementation offers practical benefits that align with contemporary demands for personalization, efficiency, and innovation.

- **BASIC FUNCTIONALITIES**

The gender and age detection system allows users to upload or capture images for processing. Prepare the uploaded images for analysis by the deep learning models. Identify and classify the gender of the individual in the image and estimate the age of the individual in the image.

- **MODULES**

- Image Input Module

- Manages image acquisition.

- Image Preprocessing Module

- Prepares images for model analysis.

- Gender Detection Module

- Classifies gender from images.

- Age Estimation Module

- Estimates age from images.

- Result Display Module

- Presents predictions to users.

- **TOOLS/PLATFORM**

- Hardware Specification

- Processor: Dual core above
 - RAM: Minimum 4 GB of RAM
 - Network: Internet connection for web scraping and email communication.

- Software Specification

- Python
 - The primary programming language for implementing the application logic.
 - Visual studio code

URL SHORTENER

- **INTRODUCTION**

In today's digital age, long and complex URLs are a common occurrence, especially with the proliferation of web content and social media. These lengthy URLs can be difficult to share. To address this issue, URL shortening services have become essential tools that transform lengthy URLs into concise, manageable links.

- **OBJECTIVES**

The URL Shortener System project aims to create a straightforward and effective solution for shortening long URLs. The primary purpose is to develop a web-based application that simplifies the process of converting lengthy URLs into shorter, user-friendly links. By doing so, the project addresses the need for easier URL sharing

- **PROBLEM DEFINITION**

In the context of the digital world, users frequently encounter long and complex URLs that can be cumbersome to share and manage. Long URLs often become problematic in various contexts, including social media posts, email communications, printed materials, and user interactions. Lengthy URLs are prone to errors when manually entered or copied, leading to broken links and poor user experience. Long URLs can appear cluttered and unprofessional, detracting from the overall presentation of content.

- **BASIC FUNCTIONALITIES**

The URL Shortener System is designed to simplify and improve the management of web links. The core functionality revolves around converting long URLs into shorter, more manageable links

- **MODULES**

- Application Module

Define the URL endpoints and map them to specific functions or

handlers. Handle requests, perform URL shortening, and manage redirection.

- Database Module

Manage the storage and retrieval of URL mappings

- URL Generation Module

Create unique shortened URLs.

- User Interface Module

Provide the front-end for user interactions with the URL shortener.

- **TOOLS/PLATFORM**

- Hardware Specification

- Processor : Dual core or above
- RAM : Minimum 4 GB

- Software Specifications

- Python
- Flask
- SQLite