PRICE SPY:YOUR ULTIMATE SHOPPING COMPANION FOR FINDING THE BEST DEALS ONLINE!

A project report submitted to
MALLA REDDY UNIVERSITY
in partial fulfillment of the requirements for the award of degree of

BACHELOR OF TECHNOLGY
in
COMPUTER SCIENCE & ENGINEERING (AI & ML)

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(Telangana State Private Universities Act No.13 of 2020 and G.O.Ms.No.14, Higher Education (UE) Department)

2023

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COLLEGE CERTIFICATE

This is to certify that this is the bonafide record of the application development entitled, **"Price spy: Your Ultimate Shopping Companion for Finding the Best Deals Online!"** Submitted by R.Srilekha (2111CS020559), D. Srinath(2111CS020560),G. Srinidhi(2111CS020561), P.Srinika(2111CS020562),A. Sripada Sai Venkata Yuktheswar (2111CS020564),Sriram Manikumar(2111CS020565) B. Tech II year II semester, Department of CSE (AI&ML)during the year 2022-23. The results embodied in the report have not been submitted to any other university or institute for the award of any degree or diploma

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AKNOWLEDGEMENT

I would like to take this opportunity to express my deepest appreciation and gratitude to my project guide and the head of the department for their invaluable guidance and support in the development of this project. Their expertise, encouragement, and mentorship have been crucial in shaping the direction of this project and bringing it to fruition.

I would like to extend my sincerest gratitude to my project guide and mentor for their invaluable support and guidance throughout the course of this project. Their expertise and feedback were instrumental in shaping my ideas and helping me to achieve my goals. I would also like to thank the head of the department for their support and encouragement. This project would not have been possible without the support and assistance of these individuals, and I am truly grateful for the opportunity to work with them. Their contributions will have a lasting impact on my personal and academic growth, and I look forward to applying the knowledge and skills I have gained from this project in my future endeavors.

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1.INTRODUCTION

1.1ABSTRACT

In today's world, online shopping has become a popular way for people to buy goods and services from the comfort of their homes. However, with so many online retail sources available, it can be difficult for shoppers to compare prices and find the best deals. This is where the price comparison tool comes into play. Price Spy is an innovative price comparison tool designed to help shoppers find the best deals online. With Price Spy, users can easily compare prices of a product across multiple top online retailers such as Amazon, Snapdeal, Flipkart, and more. By doing so, shoppers can make informed purchasing decisions and save money on their favorite products. The platform is user-friendly and provides a comprehensive list of prices, product specifications, and reviews, all in one place. Additionally, the tool features a price alert system that notifies users when their desired product's price drops. This feature allows shoppers to take advantage of seasonal sales, flash deals, and other promotions, ensuring they never miss a good bargain. Price Spy aims to simplify the shopping experience and help shoppers make smart decisions while saving time and money. With a vast database of products and retailers, Price Spy is an invaluable tool for any avid online shopper looking for the best deals.

1.1 PROBLEM STATEMENT

"Price Comparison Tool: Compare Product Prices from Multiple Websites and Find the Best Deals!"

1.2 Limitations

Technical limitations: The system's performance may be limited by technical factors, such as the processing power of the system, the speed of the internet connection, or the availability of APIs. These limitations can impact the speed and accuracy of the system.

Data accuracy: The accuracy of the data used by the system is critical to its effectiveness. However, it can be challenging to ensure the accuracy of the data sources used, which may be incomplete, outdated, or inconsistent.

2.ANALYSIS

2.1Software Requirement Specification

2.1.1 Software Requirement

Here are some common tools and software that are used in building a Price spy:

- **Programming language-** A programming language like Python is used to build a desktop notifier.
- **Integrated development environment-** An IDE such as Visual Studio, PyCharm, or Eclipse may be used to write, debug, and test the code.
- **Data storage and retrieval tools-** Tools such as SQL databases or cloud storage services may be used to store and retrieve data for the notifier

2.1.2 Hardware Requirement

No specific hardware requirements are needed, any PC having a python IDE can run this model

2.2Existing System

Currently, consumers have to manually search for the prices of products on different websites, which can be time-consuming and often confusing. Some websites offer limited price comparison services, but they may not provide a comprehensive list of retailers or accurate pricing information. The present system for price comparison involves manual search and comparison of prices across multiple e-commerce websites. Customers have to visit different websites, search for the product they are interested in, and compare the prices themselves. This can be a time-consuming and often confusing process, especially for products with many variations or options. Some websites offer price comparison tools, but they are often limited to a specific range of products or websites. This method of comparison is not efficient and may not result in finding the best deals or offers available**.**

2.3Proposed System

Our proposed system is a web-based application that compares prices of a product from multiple e-commerce websites such as Amazon, Snapdeal, Flipkart, etc. The system will extract pricing data from these websites, clean and preprocess the data, and present it to the user in a user-friendly interface. The user can then select the product they are interested in and compare the prices across different websites. The system will display the best offers and allow users to purchase the product directly from the website of their choice.

2.4Modules

BeautifulSoup: used for web scraping to extract data from HTML and XML documents. It can be used to extract product prices from e-commerce websites.

Scrapy: a framework for web scraping that is more robust than BeautifulSoup. It can be used to extract data from websites at scale and store it in a structured format such as JSON or CSV.

Selenium: used to automate web browsers. It can be used to interact with websites that require user input to access product prices, such as login pages or forms.

Pandas: used for data manipulation and analysis. It can be used to compare prices across different websites by importing data from CSV or Excel files.

Requests: used to send HTTP requests in Python. It can be used to access API endpoints to retrieve product prices from e-commerce websites.

PyAutoGUI: used for GUI automation. It can be used to automate repetitive tasks such as accessing websites and extracting data.

Database management: This module could include a database management system to store and retrieve the input images.

2.5Architecture

After designing the working principle, the architecture of the system is implemented where the code and the model is developed and tested. The architecture of the complete system is shown in Fig. 2.5.1

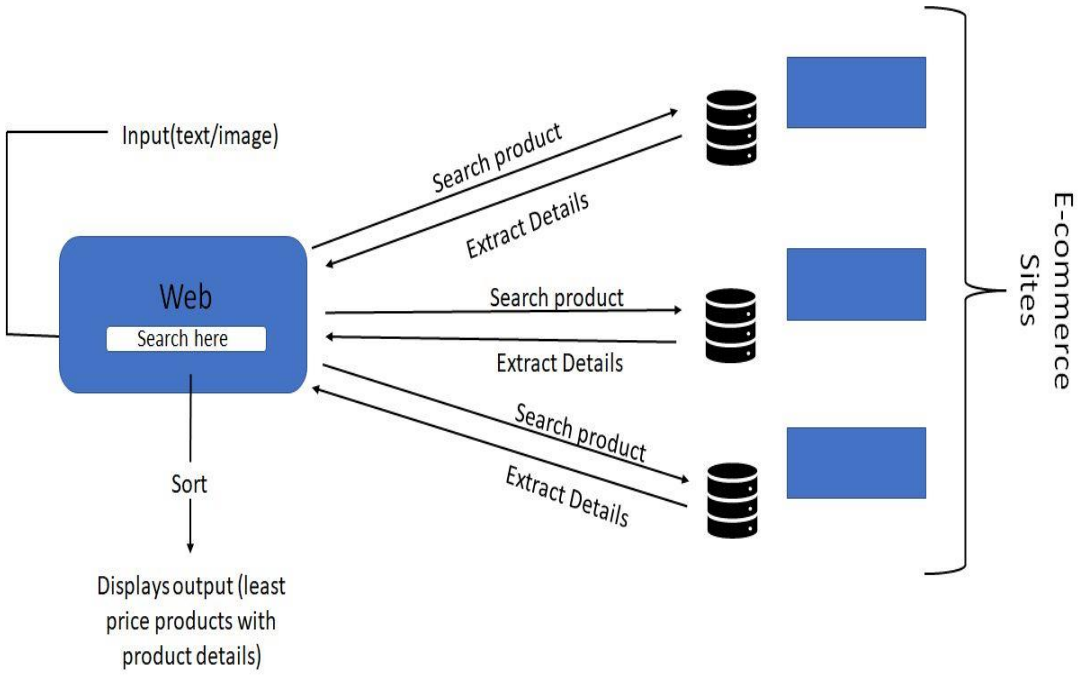

Fig 2.5.1

3.DESIGN

3.1Flowchart

The architecture of the complete system is shown in Fig. 3.1.1 Here is a general overview of an activity diagram for our Price Spy:

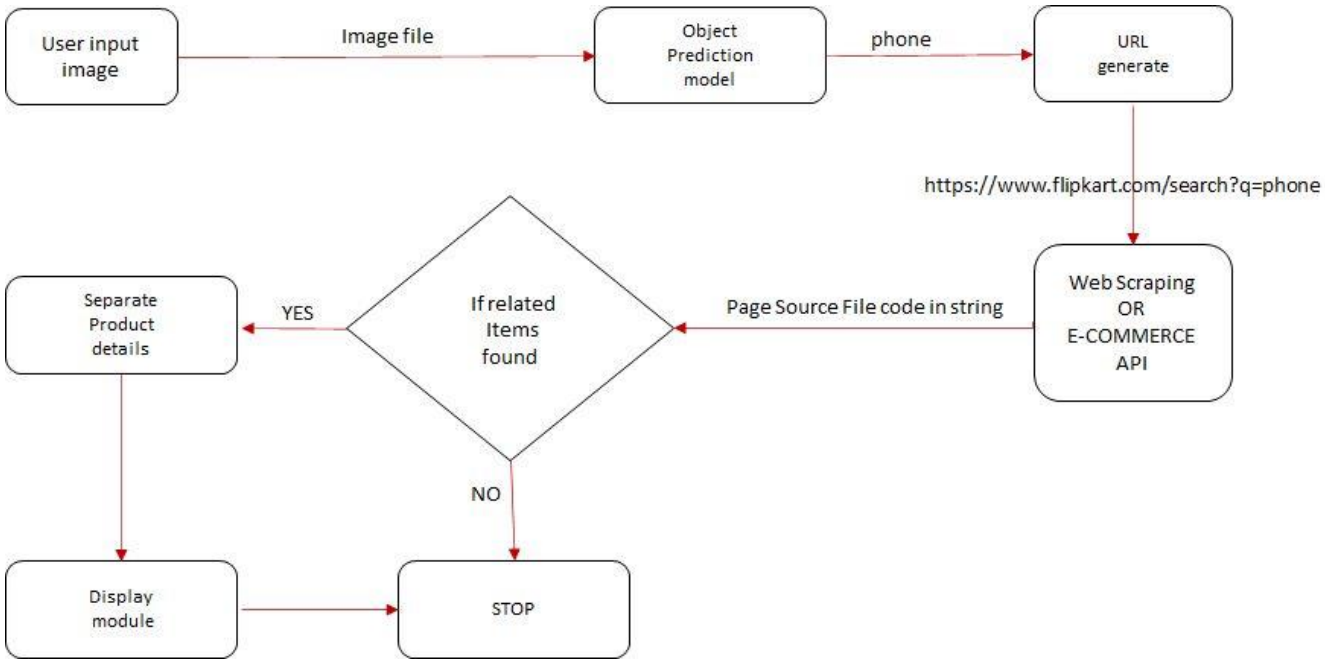

fig 3.1.1