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## **Task:- E-commerce Price Tracker**

### **Introduction**

An E-commerce Price Tracker is a Web App Tool designed to help consumers monitor product prices on various e-commerce platforms such as Amazon, Flipkart. The main goal is to notify users of price drops via email , allowing them to make informed purchasing decisions. This report outlines the development, architecture, functionality, and implementation of an E-commerce Price Tracker application.

### **Objectives**

* **Monitor Product Prices:** Regularly check the prices of products listed on e-commerce websites.
* **Notify Users:** Send notifications to users via email or SMS when the price of a tracked product drops below a specified threshold.
* **User-Friendly Interface:** Provide an intuitive interface for users to manage their tracked products and notifications.

### **Architecture**

The architecture of the E-commerce Price Tracker comprises several key components:

1. **Web Scraper:** A module to extract product Details from e-commerce websites.
2. **Database:** Stores user information, tracked products, and price history.
3. **Notification System:** Sends emails notifications to users.
4. **User Interface:** Allows users to add products, set price thresholds, and manage notifications.

### **Technology Stack**

* **Backend:** Python (Django)
* **Frontend:** HTML, CSS, JavaScript
* **Database:** Djnago Database
* **Web Scraping:** BeautifulSoup, Selenium webdriver
* **Email/SMS Notification:** SMTP (for email)
* **Task Scheduling:** Using a inbuilt Library

### **Functional Requirements**

1. **Product Tracking:**
   * Users can add products by entering the product URL.
   * Users can set a target price for each tracked product.
2. **Price Monitoring:**
   * The system regularly checks the prices of tracked products.
   * Web scraping techniques are used to extract current prices from e-commerce websites.
3. **Notification System:**
   * When a product's price drops below the user-defined target, a notification is sent.
   * Users can choose to receive notifications via email.
4. **User Dashboard:**
   * Users can view and manage their tracked products.
   * Users can see the price history of tracked products.

