

# Workflow of Web Scraping Project

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## **1. Database Creation (connectDb):**

- Establishes a connection to a SQLite database named Quotes.db.
- Creates a table named Quotes if it does not already exist, with the following columns:
  - id (Primary Key, Auto-incremented)
  - theme (Text)
  - lines (Text)
  - author (Text)
- Commits changes to the database.

## **2. Data Fetching (fetchData):**

- Sends an HTTP GET request to the specified URL (<http://www.values.com/inspirational-quotes>) using the requests library.
- Parses the HTML content using the BeautifulSoup library with the html.parser.
- Searches for relevant article elements (<div>, <h2>, <span>, <p>, <img> and <a> tags)
- Returns a list of extracted tuples (headline, summary, link).

## **3. Data Storage (storeData):**

- Inserts the fetched data into the Quotes table in the SQLite database.
- Handles duplicate or other errors gracefully to ensure smooth operation.
- Commits the changes and closes the database connection.

## **4. Main Functionality (main):**

- Calls connectDb to ensure the database is prepared.
- Fetches data from the provided URL using fetchData.
- Stores the fetched data into the database using storeData.
- Prints messages to indicate success or cancellation of the process.

### **Key Features**

- **Error Handling:**

Database errors (e.g., connection issues, duplicate entries) are logged. HTTP request errors are captured and logged for debugging.

- **Code Modularity:**

Functions are well-structured for specific tasks: database setup, data fetching, and storage.

- **Customizable Scraping:**

The URL and HTML elements can be modified to accommodate other webpages and structures.