A project on

Book PDF Downloader

Guided By :-

Ms. Aastha Sharma

Submitted By :-

Shubham, Priyansh, Ishaan, Adarsh

INDEX:-

INTRODUCTION

- **PDF Book Downloader Project**
- **Objective:** Enhancing digital access to educational materials through a user-friendly application.
- **Methodology:** Developed using Python, Tkinter, requests library for web scraping, and BeautifulSoup for HTML parsing.
- **Key Features:** Search functionality across multiple engines, PDF retrieval, and robust download management.
- **Importance:** Facilitating convenient access to educational resources globally.

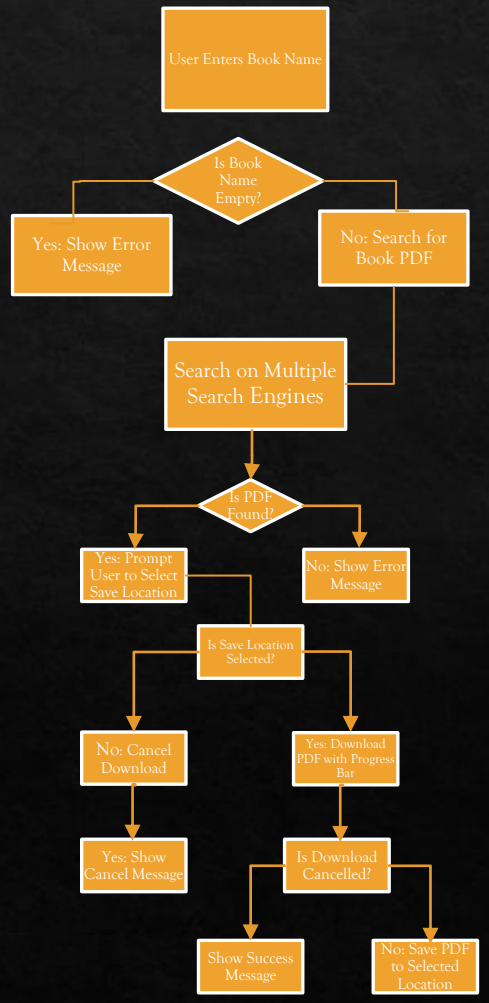
OBJECTIVES

- **Develop a User-Friendly Interface:** Create an intuitive interface for users to search and download PDF books effortlessly.
- **Implement Search Functionality:** Enable searching across multiple search engines to locate PDF files related to specified book titles.
- **Ensure Reliable PDF Retrieval:** Utilize web scraping techniques to extract PDF download links from search engine results.
- **Enhance Download Management:** Provide robust download management features including progress tracking and cancellation.

METHODOLY USED

- **Development Approach:** Adopted an Agile development methodology for iterative enhancements and quick adaptation to user feedback.
- **Programming Language:** Developed using Python for its versatility and extensive libraries, including Tkinter for GUI development.
- **Web Scraping:** Utilized the ‘requests’ library for HTTP requests and ‘BeautifulSoup’ for parsing HTML to extract PDF download links.
- **User Interface Design:** Implemented using Tkinter to create a responsive and intuitive GUI for seamless user interaction.

FLOWCHART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No: Search for Book PDF
Search on Multiple Search Engines
Is PDF Found?
Yes: Prompt User to Select Save Location
No: Show Error Message
Is Save Location Selected?
No: Cancel Download
Yes: Download PDF with Progress Bar
Yes: Show Cancel Message
Is Download Cancelled?
Show Success Message
No: Save PDF to Selected Location

RESULTS AND OUTPUTS

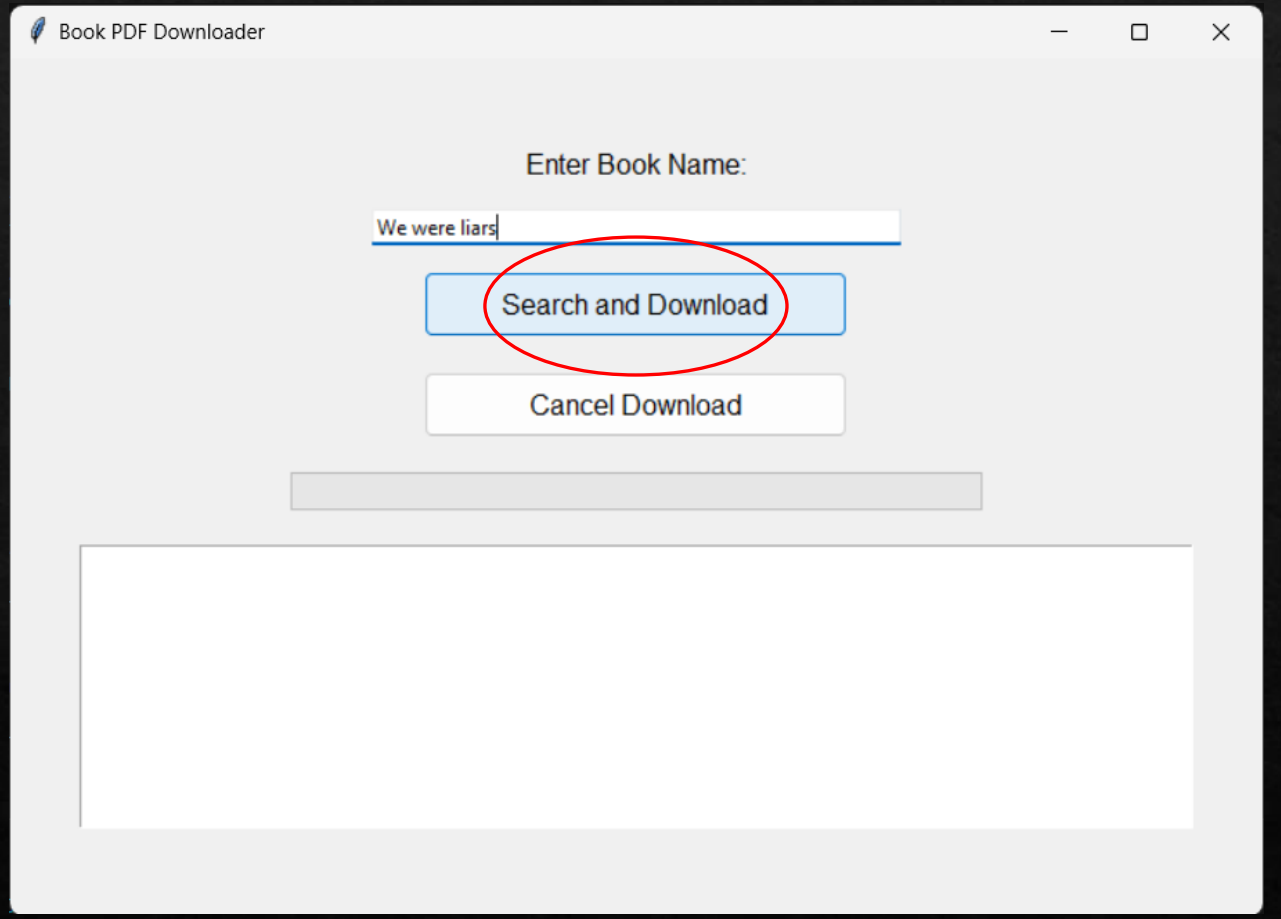
```python
import tkinter as tk
from tkinter import ttk, messagebox, filedialog
import requests
from bs4 import BeautifulSoup
import os
import re
import threading

# Global variable to manage download cancellation
cancel_download_event = threading.Event()

def search_book():

    book_name = entry.get()
    if not book_name:
        messagebox.showwarning("Input Error", "Please enter a book name")
        return

    # Clear the cancel event before starting a new download
    cancel_download_event.clear()

    # Call the function to search and download the book PDF in a separate thread
    threading.Thread(target=download_book_pdf, args=(book_name,)).start()

def cancel_download():

    cancel_download_event.set()

def download_book_pdf(book_name):

    # Clear the log text widget
    log_text.delete(1.0, tk.END)

    log_text.insert(tk.END, f"Searching for '{book_name}'...\n")

    search_urls = [
        f"https://www.google.com/search?q={book_name.replace(' ', '+')}+filetype:pdf",
```

```
        f"https://www.bing.com/search?q={book_name.replace(' ', '+')}+filetype:pdf",
        f"https://www.duckduckgo.com/?q={book_name.replace(' ', '+')}+filetype:pdf"
    ]

    headers = {
        "User-Agent": "Mozilla/5.0 (Windows NT 10.0; Win64; x64) AppleWebKit/537.36 (KHTML, like Gecko) Chrome/91.0.4472.124 Safari/537.36"
    }

    pdf_url = None
    for url in search_urls:
        log_text.insert(tk.END, f"Searching on {url}...\n")
        try:
            response = requests.get(url, headers=headers)
            soup = BeautifulSoup(response.text, "html.parser")

            for link in soup.find_all("a", href=True):
                href = link["href"]
                if ".pdf" in href:
                    pdf_url = href
                    break
            if pdf_url:
                break
        except Exception as e:
            log_text.insert(tk.END, f"Error while searching: {str(e)}\n")
            messagebox.showerror("Error", f"Error while searching: {str(e)}")
            return

    if not pdf_url:
        log_text.insert(tk.END, "No PDF found for the given book name\n")
        messagebox.showerror("Error", "No PDF found for the given book name")
        return

    log_text.insert(tk.END, f"PDF found at: {pdf_url}\n")

    # Prompt the user to select the download location
    save_path = filedialog.askdirectory()
    if not save_path:
```

```python
    if not save_path:
        return

    pdf_name = re.sub(r'[\\/*?:"<>|]', "", book_name) + ".pdf"
    file_path = os.path.join(save_path, pdf_name)

    log_text.insert(tk.END, f"Downloading PDF to: {file_path}\n")

    # Download the PDF with progress bar
    try:
        response = requests.get(pdf_url, stream=True)
        total_size = int(response.headers.get('content-length', 0))

        progress_bar['value'] = 0
        progress_bar['maximum'] = total_size

        with open(file_path, 'wb') as pdf_file:
            for data in response.iter_content(chunk_size=4096):
                if cancel_download_event.is_set():
                    log_text.insert(tk.END, "Download cancelled\n")
                    messagebox.showinfo("Download Cancelled", "The download has been cancelled.")
                    return

                pdf_file.write(data)
                progress_bar['value'] += len(data)
                root.update_idletasks()

        log_text.insert(tk.END, "Download successful\n")
        messagebox.showinfo("Success", f"PDF downloaded successfully as {file_path}")
    except Exception as e:
        log_text.insert(tk.END, f"Failed to download PDF: {str(e)}\n")
        messagebox.showerror("Error", f"Failed to download PDF: {str(e)}")

# Create the main application window
root = tk.Tk()
root.title("Book PDF Downloader")

```

```
110
111 # Add padding to the main window
112 root.configure(padx=20, pady=20)
113
114 # Create a style
115 style = ttk.Style()
116 style.configure("TLabel", font=("Helvetica", 12))
117 style.configure("TEntry", font=("Helvetica", 12))
118 style.configure("TButton", font=("Helvetica", 12), padding=6)
119 style.configure("TProgressbar", thickness=20)
120
121 # Create and place the widgets inside a frame
122 frame = ttk.Frame(root, padding=(20, 20, 20, 20))
123 frame.pack(fill="both", expand=True)
124
125 label = ttk.Label(frame, text="Enter Book Name:")
126 label.pack(pady=10)
127
128 entry = ttk.Entry(frame, width=50)
129 entry.pack(pady=5)
130
131 search_button = ttk.Button(frame, text="Search and Download", command=search_book)
132 search_button.pack(pady=10)
133 search_button.configure(width=25)  # Adjust the button width
134
135 # Add a cancel button
136 cancel_button = ttk.Button(frame, text="Cancel Download", command=cancel_download)
137 cancel_button.pack(pady=10)
138 cancel_button.configure(width=25)  # Adjust the button width
139
140 # Add a progress bar
141 progress_bar = ttk.Progressbar(frame, orient='horizontal', length=400, mode='determinate')
142 progress_bar.pack(pady=10)
143
144 # Add a log text widget
145 log_text = tk.Text(frame, height=10, wrap=tk.WORD)
146 log_text.pack(pady=10, fill=tk.BOTH, expand=True)
147
148 # Run the application
149 root.mainloop()
150
```

OUTPUTS


Book PDF Downloader
Enter Book Name:
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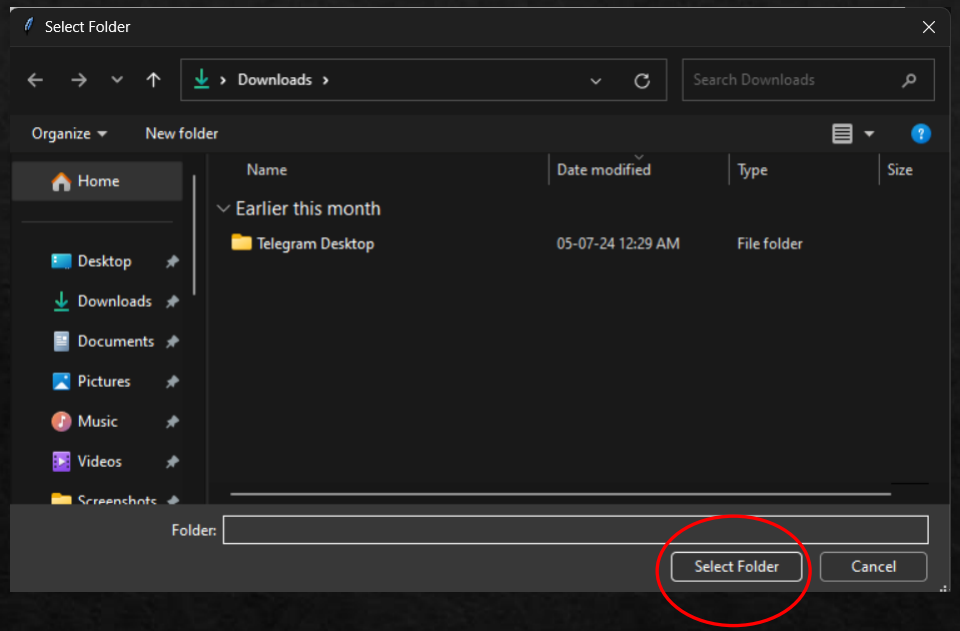
Select Folder
Downloads
Search Downloads
Organize
New folder
Home
Desktop
Downloads
Documents
Pictures
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Videos
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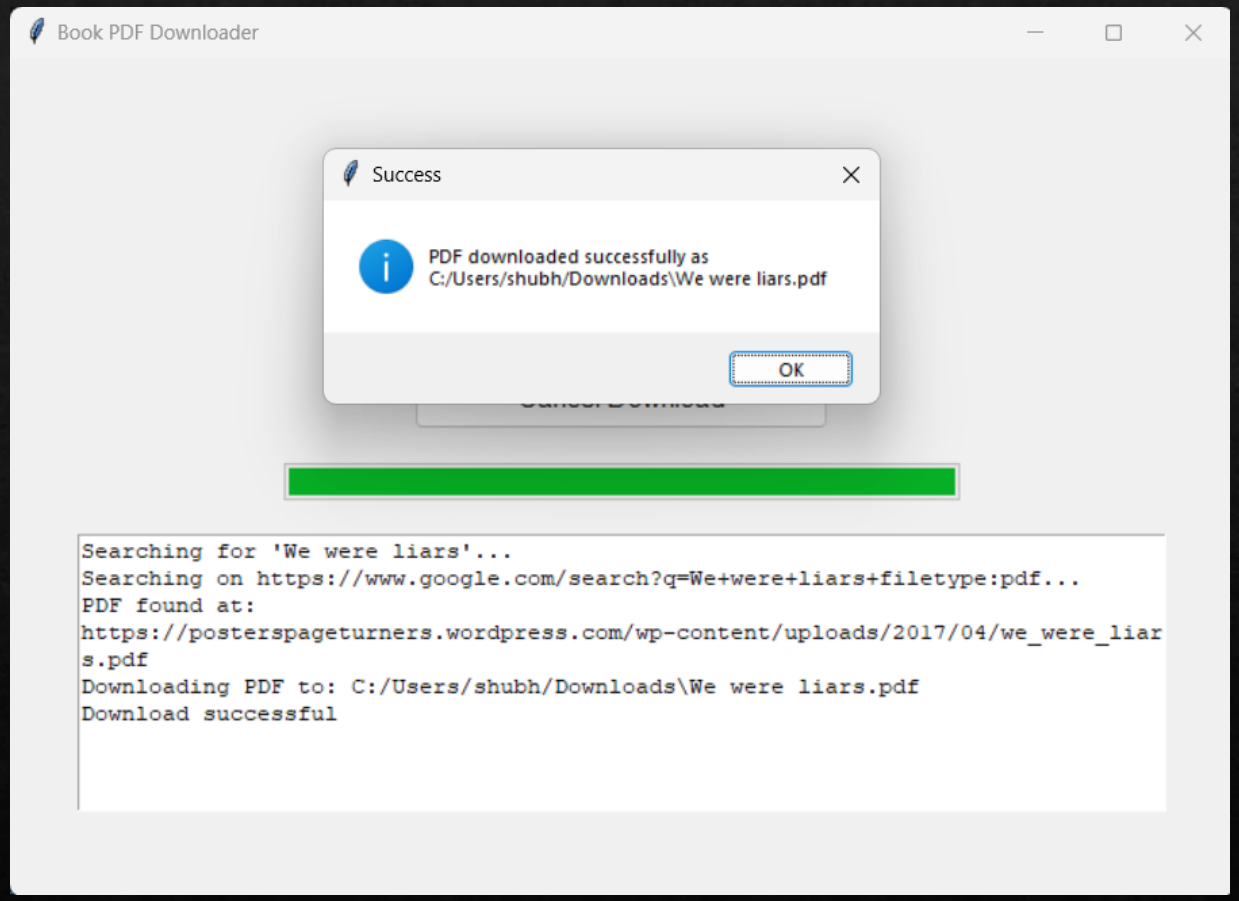
Select Folder
Cancel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Searching for 'We were liars'...
Searching on https://www.google.com/search?q=We+were+liars+filetype:pdf...
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FUTURE SCOPE

- Enhance the search functionality by refining search queries or using additional search engines or APIs.
- Provide feedback on the progress of the search operation itself (e.g., "Searching on Google/Bing/DuckDuckGo...").
- Add a mechanism to handle cases where multiple PDF links are found and allow the user to choose.
- Radio buttons or a dropdown menu to select between "PDF" and "Audiobook".
- Modify search URLs to include audiobook-specific queries.

CONCLUSION

Current Features

- Search and download PDFs of books based on user input.
- Progress tracking with a visual progress bar.
- Error handling for network issues and search failures.

Future Enhancements:

- Audiobook Integration: Extend functionality to download audiobooks alongside PDFs.
- Enhanced User Interface: Improve user experience with clearer feedback and options.
- Advanced Search: Implement advanced search algorithms or APIs for better results.

Benefits:

- Empowers users to access books in multiple formats effortlessly.
- Enhances learning and enjoyment through versatile content delivery.
- Vision: Continuously evolve to meet user needs and technological advancements in digital content access.

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Thank
you