पावर ग्रिड कॉर्पोरेशन ऑफ इंडिया लिमिटेड

(भारत सरकार का उद्यम)

POWER GRID CORPORATION OF INDIA LIMITED

(A Government of India Enterprise)

< User Manual >

निर्मल:
PDF Converter

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1. Introduction

The Nirmal PDF Converter is a comprehensive web application designed to provide a suite of tools for managing and converting PDF files. Developed with a focus on user-friendly design and robust functionality, this application aims to simplify the various tasks associated with handling PDF documents.

The complete system is built using python libraries with Streamlit being the most prominently used library to implement python code in the frontend.

1.1 Overview

This application is exclusively intended for use by Powergrid Corporation employees. Due to potential security threats posed by existing third-party software solutions.

The application is designed to be responsive, adapting seamlessly to various devices and screen sizes. Whether accessed from a desktop, tablet, or smartphone, users experience consistent functionality and usability.

The dashboard provides a centralized hub for users to track and manage files effectively. It offers insights into usage statistics, file histories, and user activities, empowering users to monitor document workflows and user interactions.

The Functionalities are primarily divided into two types –

1. Convert Files

This section provides tools for converting files to and from PDF format:

- **Word to PDF:** Convert Word documents (.docx) to PDF.

- **PNG to PDF:** Convert PNG images to PDF.

- **JPG to PDF:** Convert JPG images to PDF.

- **Excel to PDF:** Convert Excel spreadsheets (.xls, .xlsx) to PDF.

- **PDF to JPG:** Convert PDF documents to JPG images.

2. PDF Operations

This section includes tools for various PDF operations:

- **Merge PDFs:** Combine multiple PDF files into one.

- **Protect PDF:** Add password protection to your PDF files.

- **Unlock PDF:** Remove password protection from your PDF files.

- **Organise PDF:** Reorder, add, or remove pages within a PDF file.

- **Split PDF:** Split a single PDF into multiple files.

- **Extract PDF:** Extract specific pages from a PDF file.

- **Compress PDF:** Reduce the file size of your PDFs.

2. Getting Started

2.1 Cautions & Warnings

These are the few cautions that the user may exhibit for better experience -

1. File Security and Privacy:

Ensure that sensitive or confidential documents are handled appropriately. While the application provides functionalities like password-protected PDFs, users must ensure their login credentials and uploaded files are not shared with unauthorized individuals.

2. File Size Limitations:

Be aware of the file size limitations for uploads. Large files may take longer to process and could potentially cause the application to become unresponsive. Attempting to upload files that exceed the size limits may result in errors or failures.

3. Browser Compatibility:

Use the latest version of a supported web browser (Chrome, Firefox, Safari, or Edge) for the best experience. Older browser versions may not support all functionalities.

2.2 User Access Considerations

This application is exclusively intended for use by Powergrid Corporation employees. Due to potential security threats posed by existing third-party software solutions, this application has been meticulously developed by the IT department of Powergrid for ensuring data integrity and security.

2.3 Accessing the System

The application requires users to log in to access its features. The login page will prompt you to enter your username and password. Upon successful authentication, you will be granted access to the application's functionalities.

2.4 System Organization & Navigation

Navigating through the application is quite simple and can be achieved by using the sidebar. At the top left corner of the application, there is a toggle arrow. Clicking this arrow opens a sidebar where you can find a list of all the services supported by Nirmal. Each service in the sidebar allows you to perform various format and file conversion tasks when clicked.

2.4 Exiting the System

Under the Account section of the sidebar after logging in the user can see the option to Log out as well on clicking the option it takes the user to the page with the logout button allowing the users to exit the application when they are done with their work.

3.0 Using the System

3.1 Login and Authentication

**1. Log in to the Nirmal PDF Converter using the username and password parameter.**

2. Users can toggle the visibility of their entered password by clicking on the eye icon, allowing them to hide or reveal the password as needed.

3. Unauthenticated users will see only the company logo and copyright information when toggling the sidebar.

4. If a user input wrong login credentials then they may find the error "Invalid username and password" and are prompted to enter credentials again.
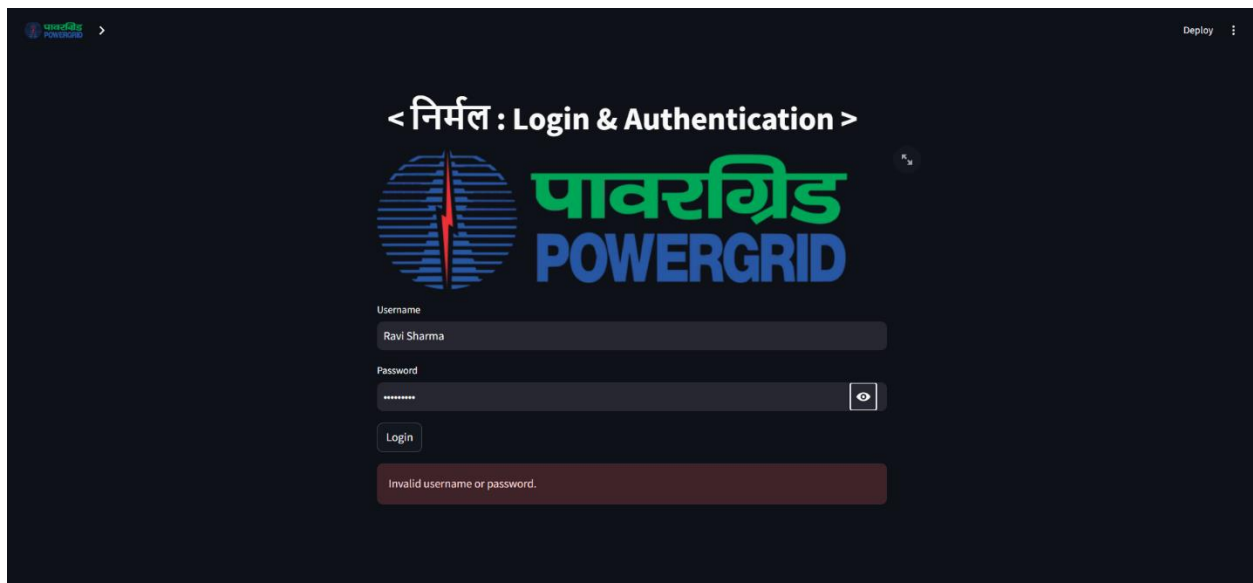
4. If a user input correct login credentials then they may find the message "login successful" with the side bar toggling to expanded state.

3.2 Navigation

1. Users can click on the "View More" option to explore all the services offered by the Nirmal PDF Converter.

2. The side bar provides a very easy and simple way to navigate between different services, a user can navigate just simply by clicking on each of the service.

3.3.1 Section - Main Menu

A. Home Page

1. The very first section that is visible to the users is of "Main Menu" which contains three pages the Home Page, The Management Information System and the Dashboard.
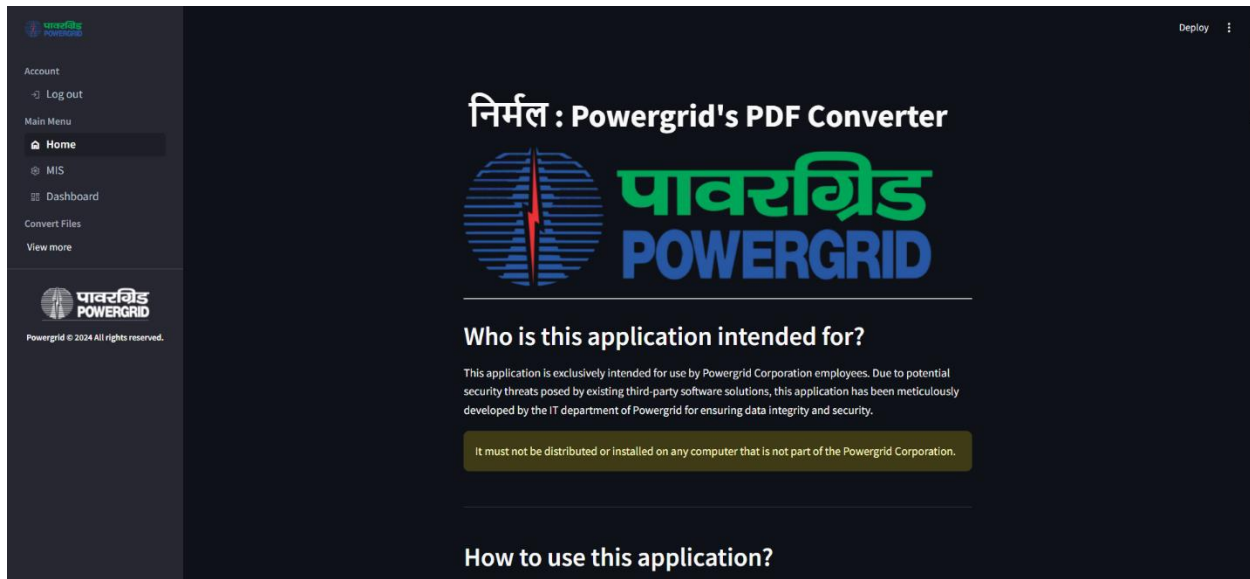
B. MSI Page -

2. The MIS Page shows the file Meta data and User login data fetching it from the database.

3. Clicking on the table prompts a download button which allows the users to download this data as the csv format.

C. Dashboard Page -

4. The dashboard provides a centralized hub for users to track and manage files effectively. It offers insights into usage statistics.
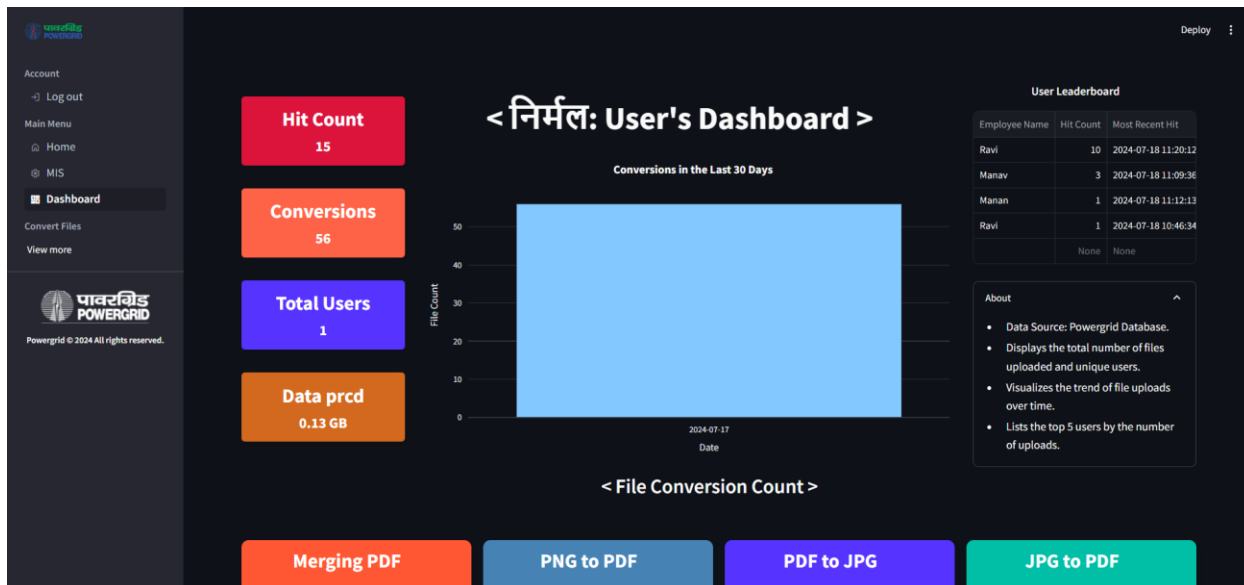
5. Users may scroll down the dashboard page to find information about the File conversion count.
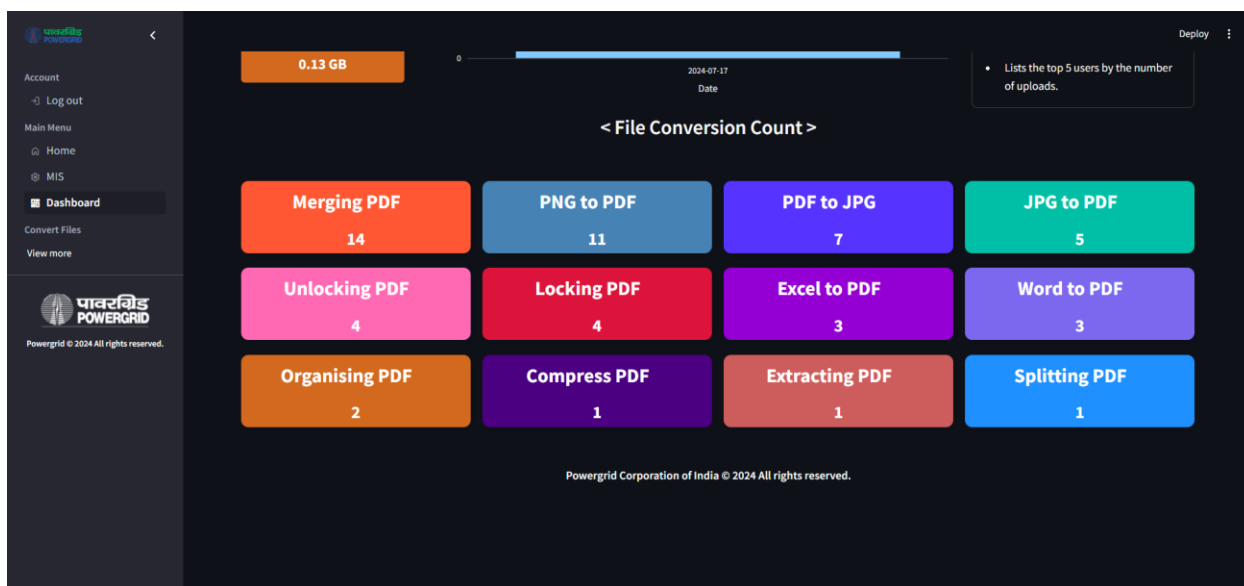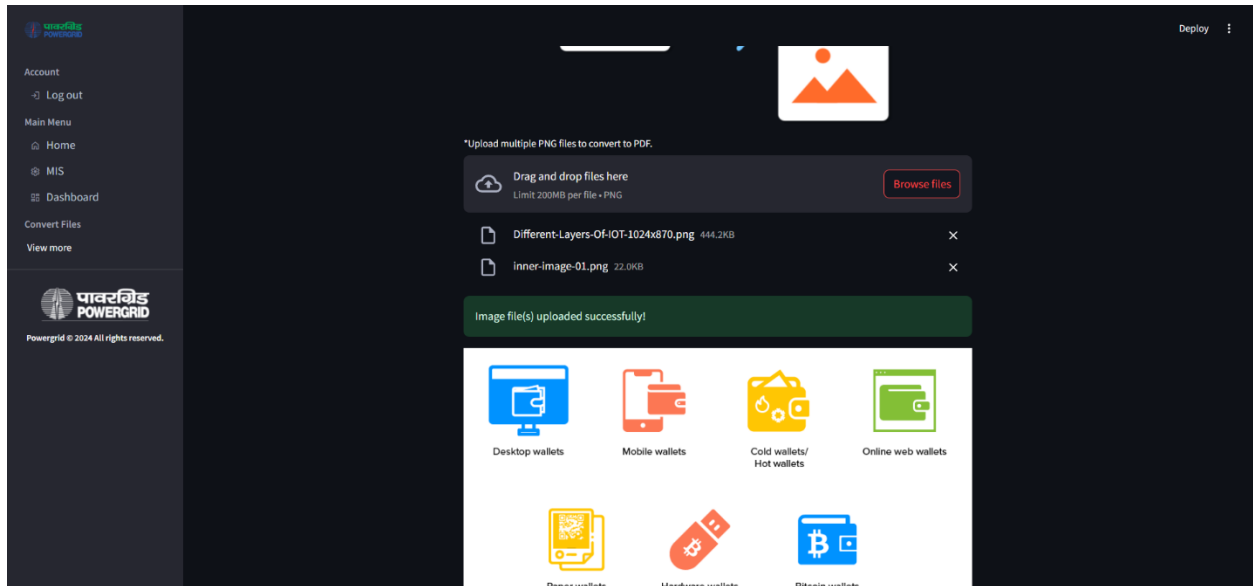
3.3.2 Section – Convert Files
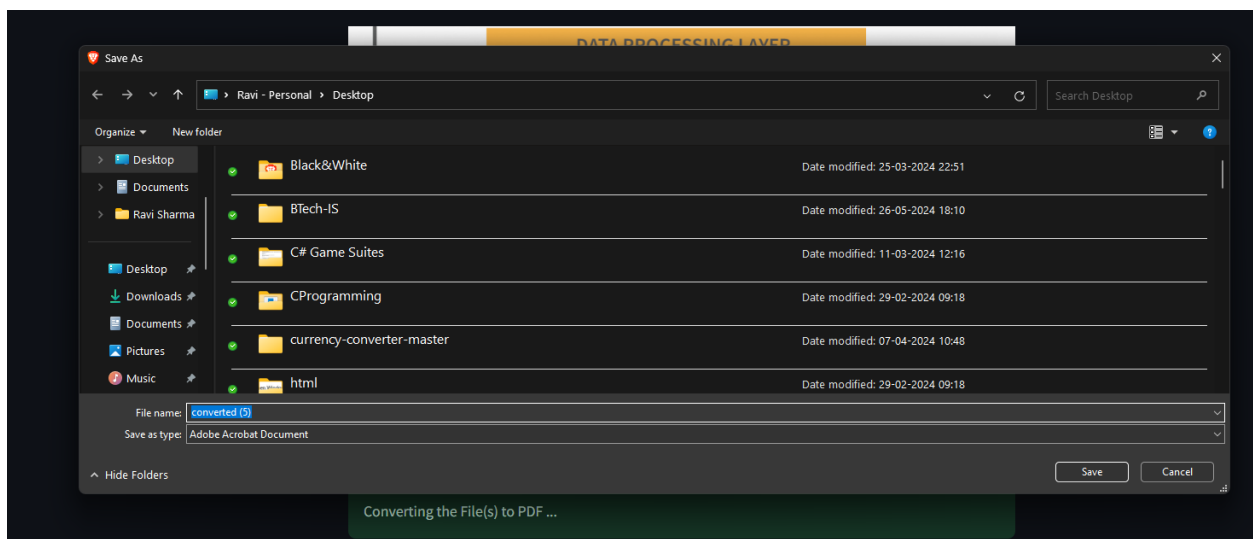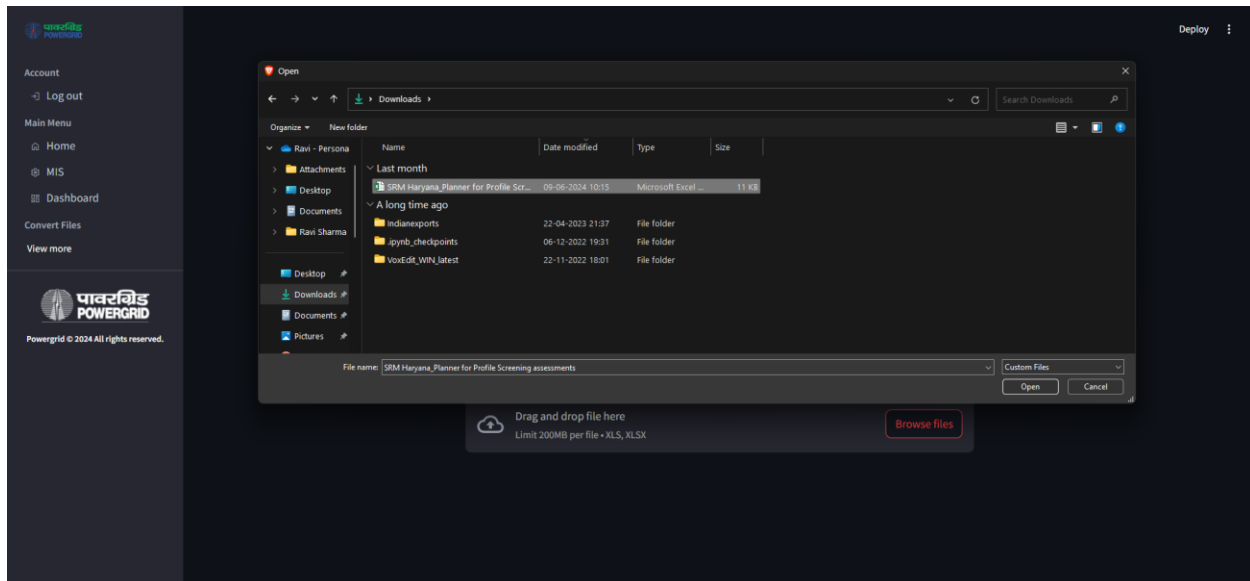
A. Word to PDF

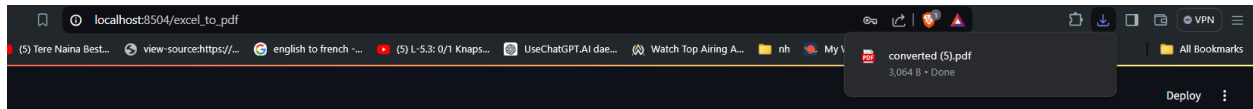**1. On navigating through the side bar to the "Word to PDF" Page users will see this interface.**

2. On clicking "Browse Files" users are prompted to select a docx file from their system that they want to convert to pdf.
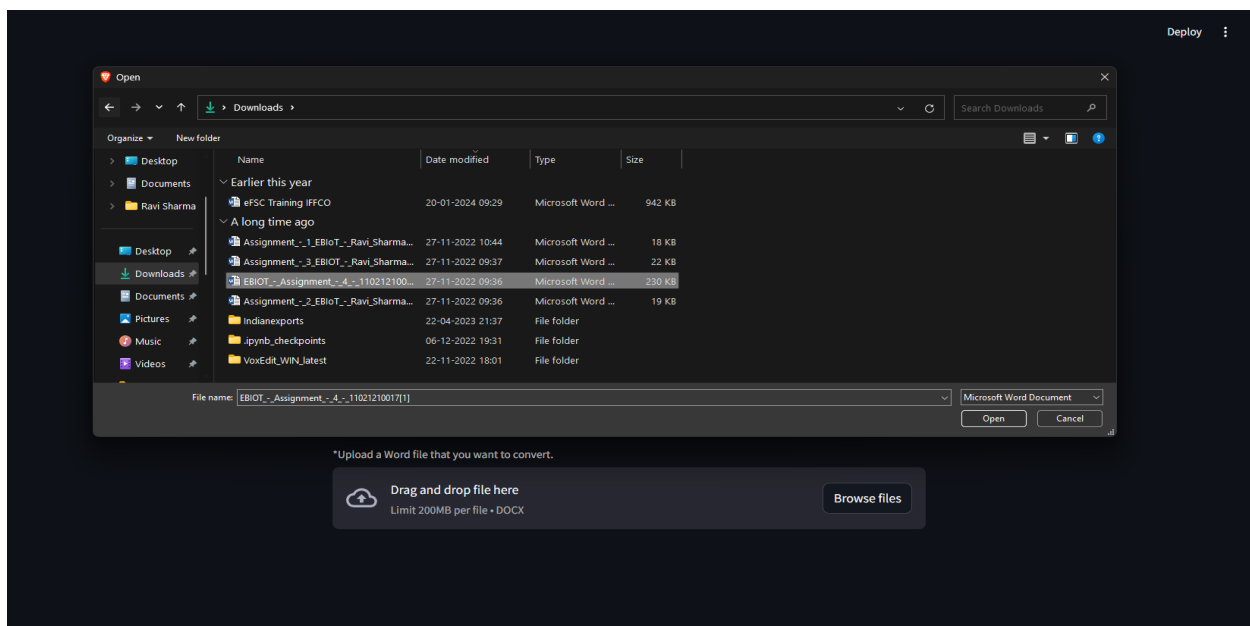
3. On selecting the file from their system the file if valid is uploaded successfully and the process of conversion starts.
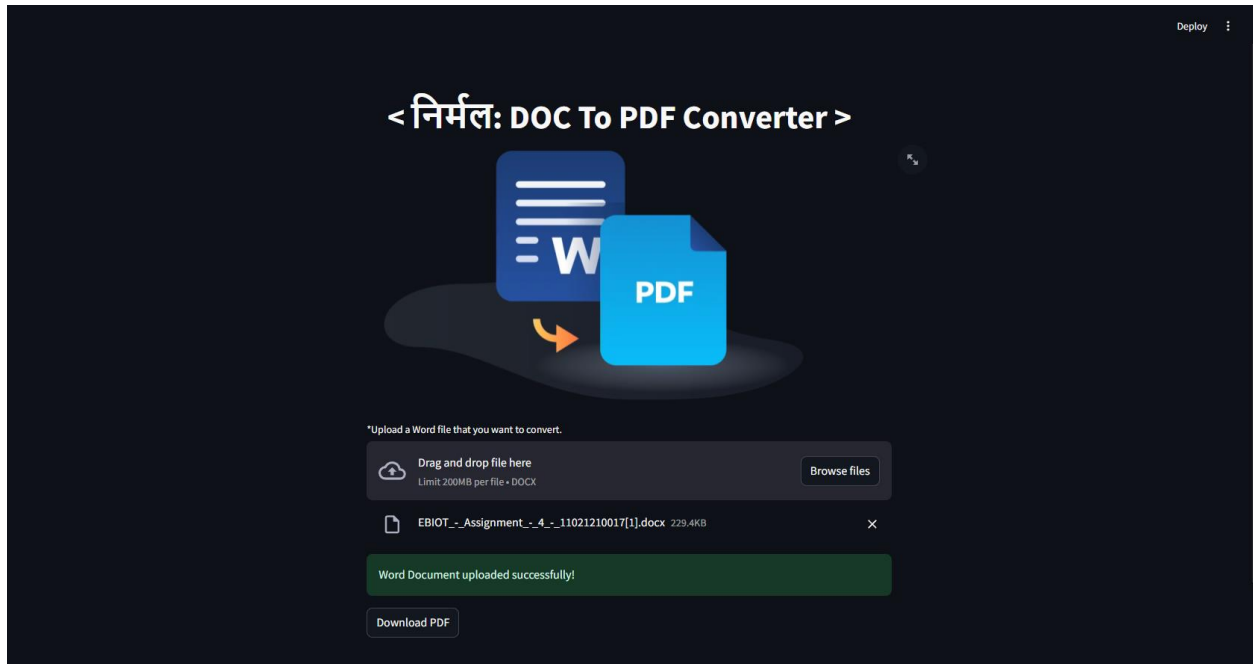
4. On clicking the "Download PDF" Button users can download the pdf.
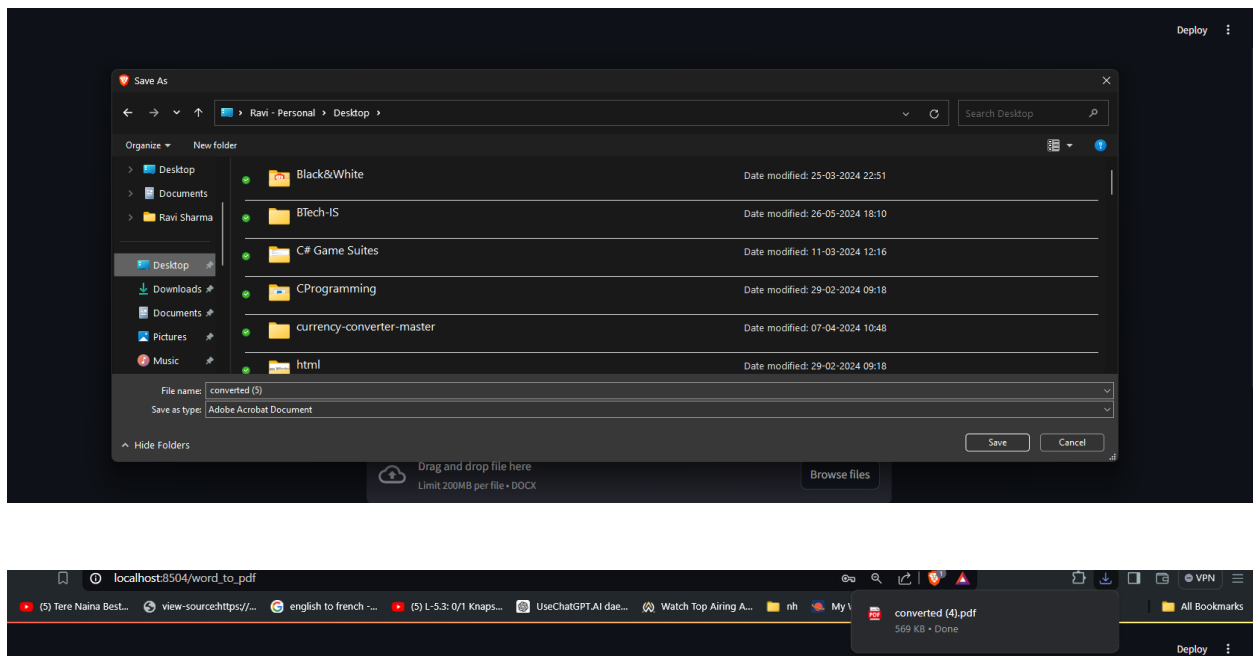
B. JPG To PDF

1. On navigating through the side bar to the "JPG To PDF" Page users will see this interface.

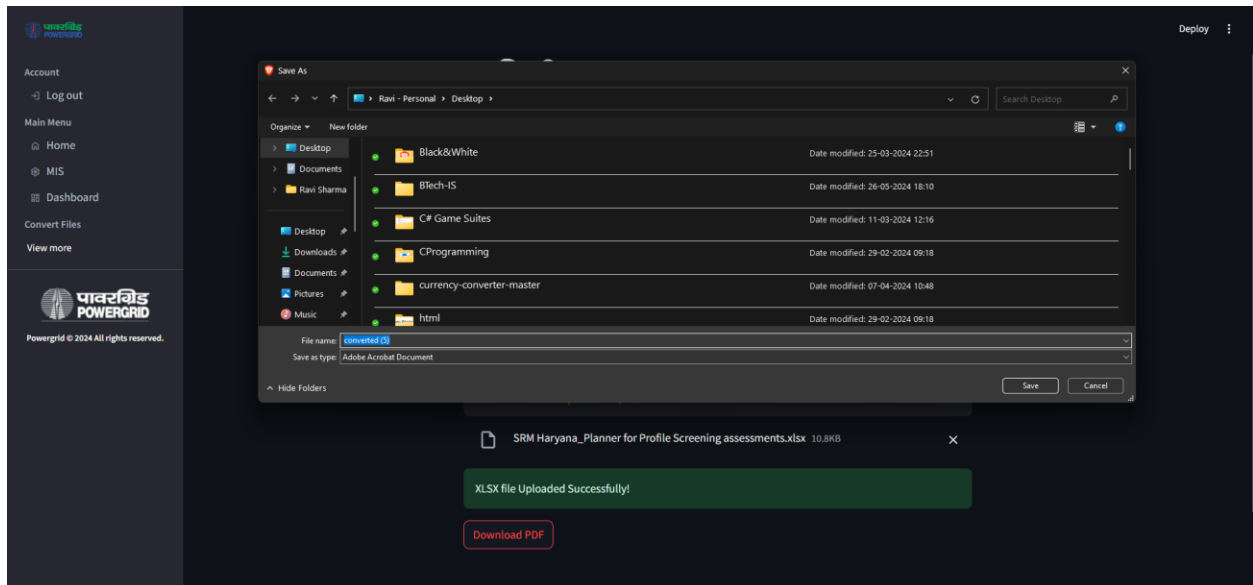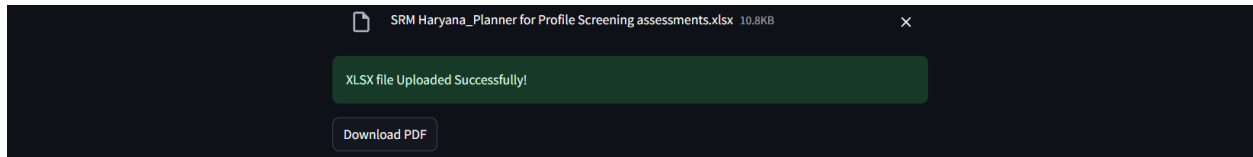**2. On clicking "Browse Files" users are prompted to select a jpg file from their system that they want to convert to pdf.**
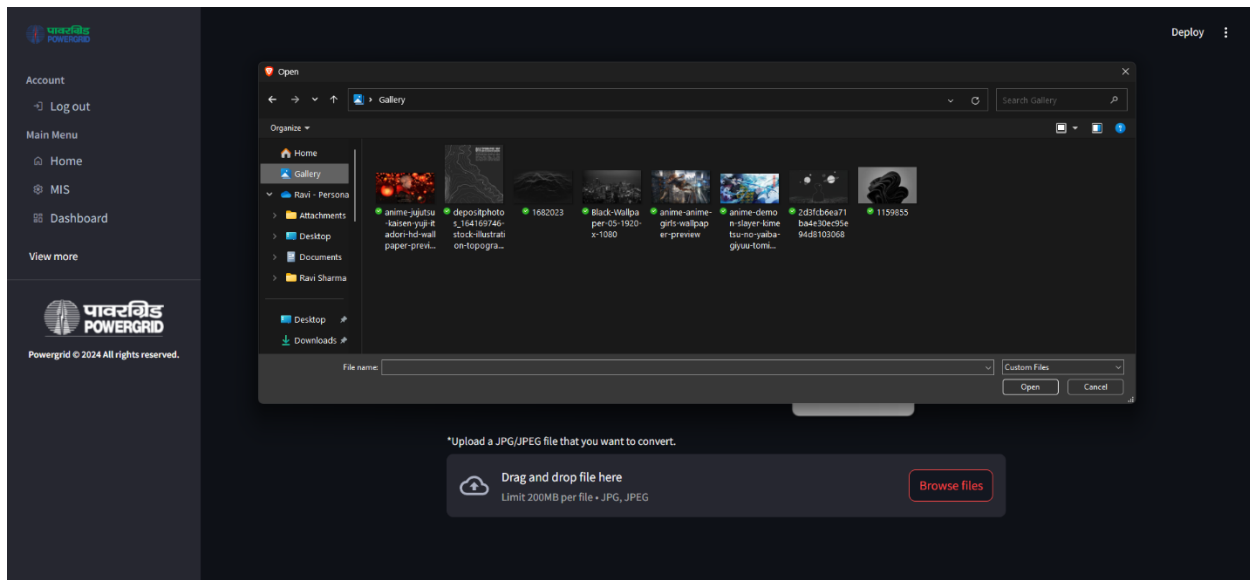
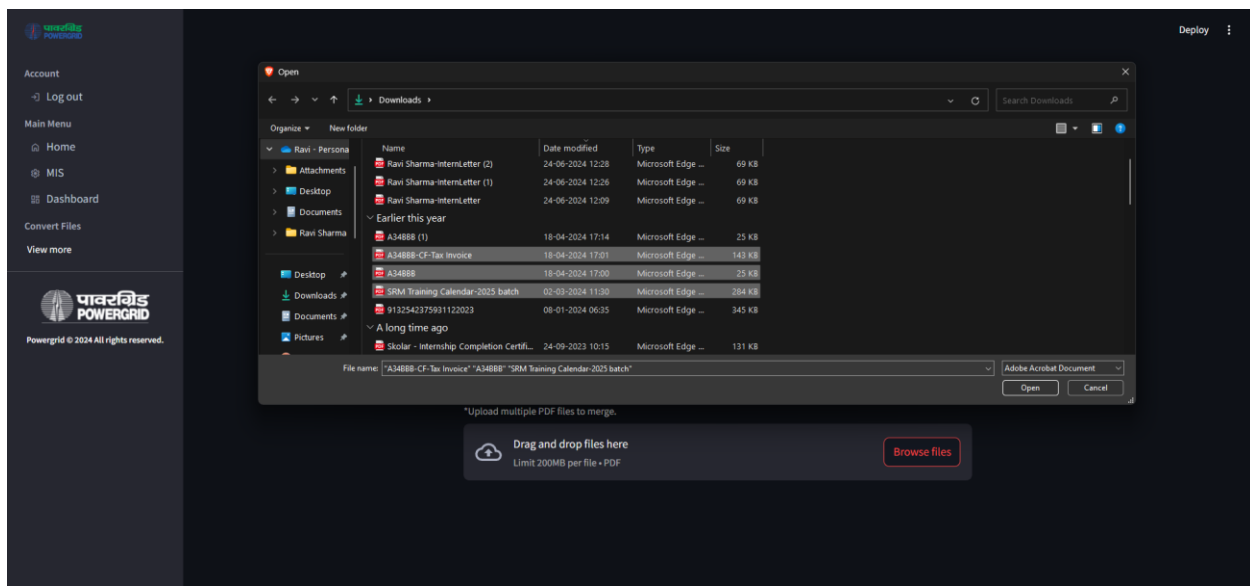**3. Users can download the converted PDF file by clicking on the "Download PDF" button.**
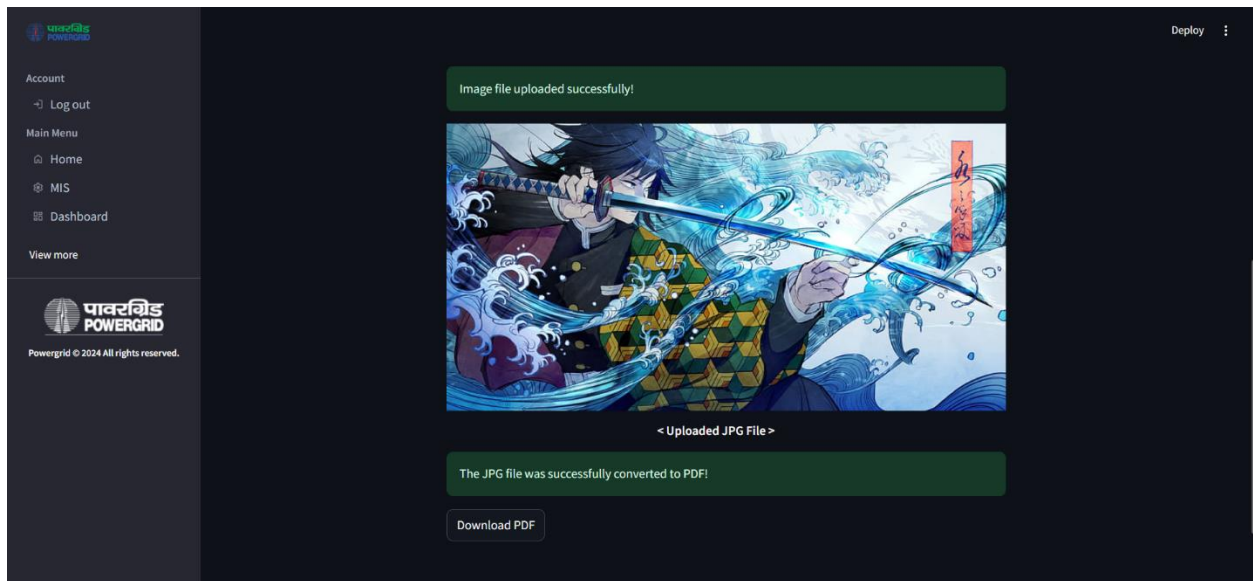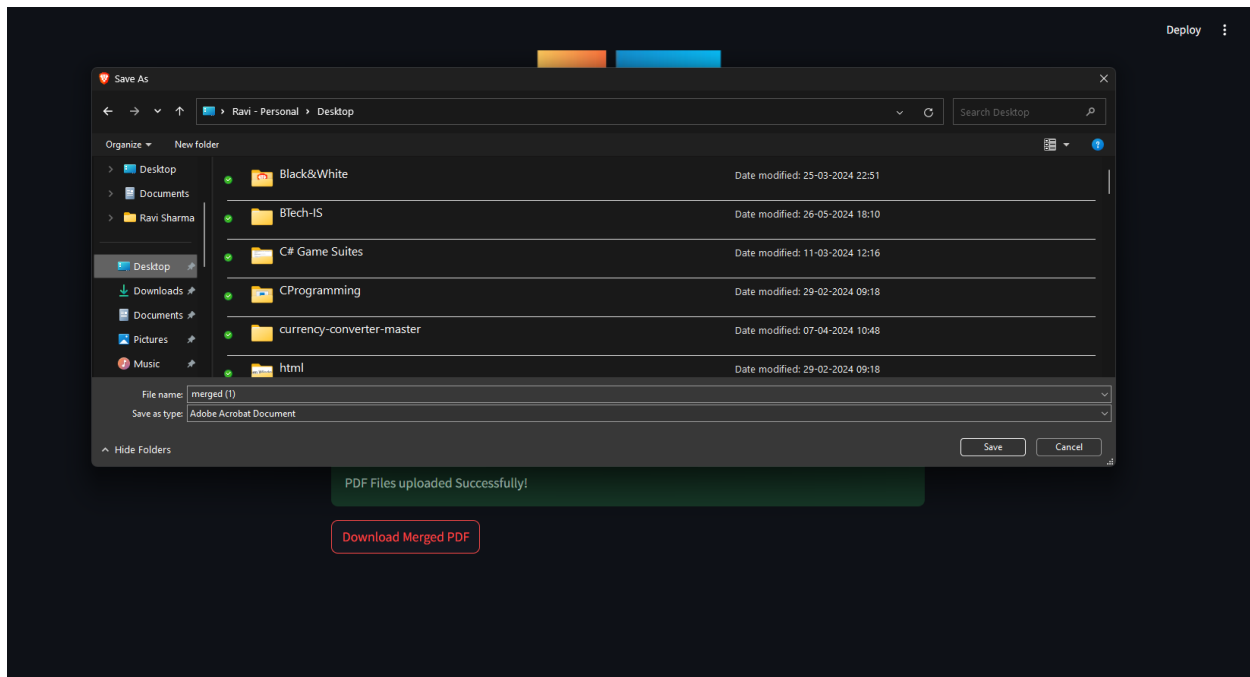

C. PNG To PDF

1. On navigating through the side bar to the "PNG To PDF" Page users will see this interface.

2. On clicking "Browse Files" users are prompted to select png file(s) from their system that they want to convert to pdf.

3. Users can download the converted PDF file by clicking on the "Download PDF" button.

D. Excel To PDF

1. On navigating through the side bar to the "Excel To PDF" Page users will see this interface.

2. On clicking "Browse Files" users are prompted to select xls/xlsx file from their system that they want to convert to pdf.

3. Users can download the converted PDF file by clicking on the "Download PDF" button.

3.3.3 Section – PDF Operations

A. Merge PDF's

1. On navigating through the side bar to the "Merge PDF's" Page users will see this interface.
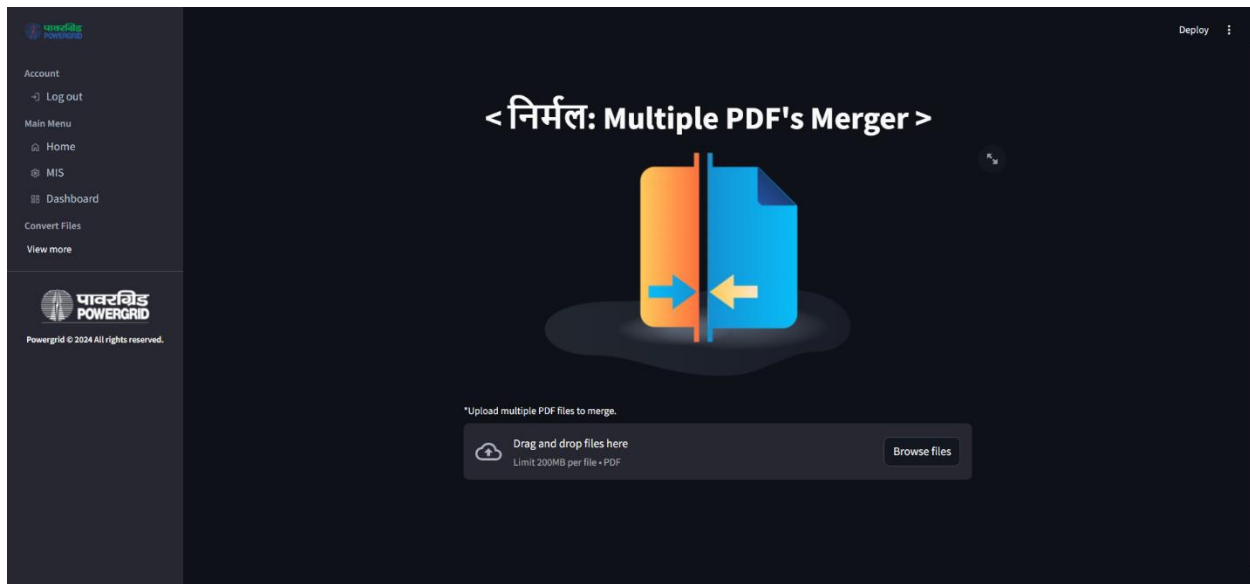
2. On clicking "Browse Files" users are prompted to select multiple PDF files from their system that they want to merge.

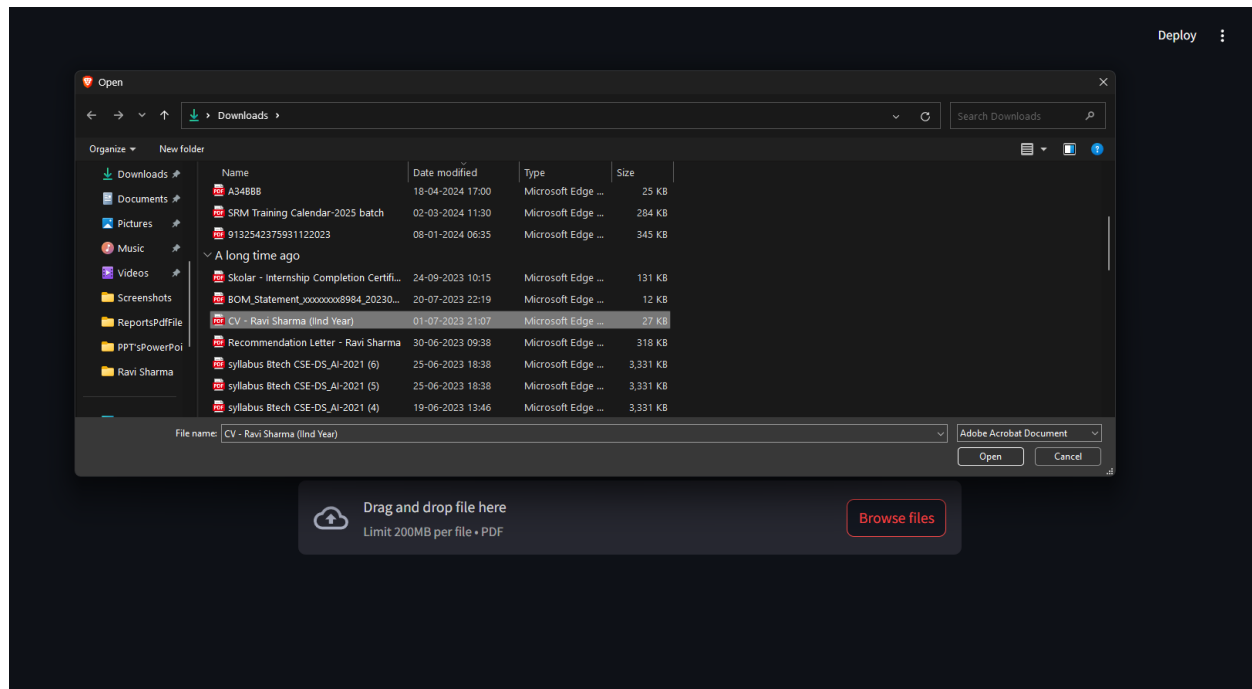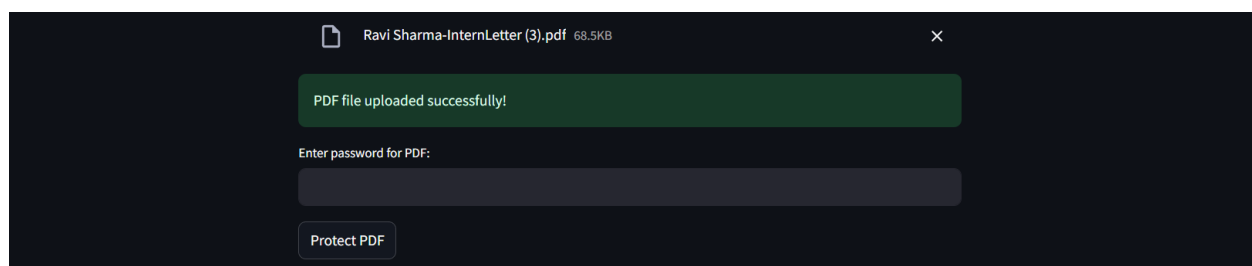**3. Users can download the converted PDF file by clicking on the "Download Merged PDF" button.**


B. Protect PDF

1. On navigating through the side bar to the "Protect PDF" Page users will see this interface.

2. On clicking "Browse Files" users are prompted to select a PDF from their system that they want to protect.

3. After successfully uploading the files users are asked to enter a new password with which they want to protect the PDF.

4. After successfully entering the password and on clicking "Protect PDF" button users can download the protected PDF.

C. Unlock PDF

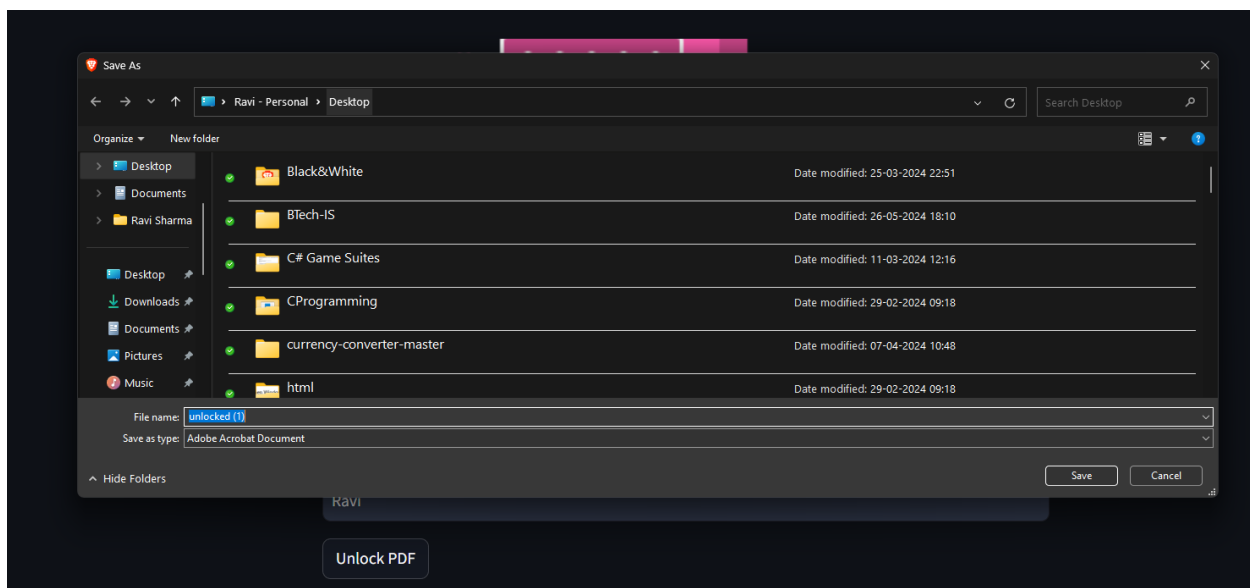**1. On navigating through the side bar to the "Unlock PDF" Page users will see this interface.**

2. On clicking "Browse Files" users are prompted to select a PDF from their system that they want to unlock.
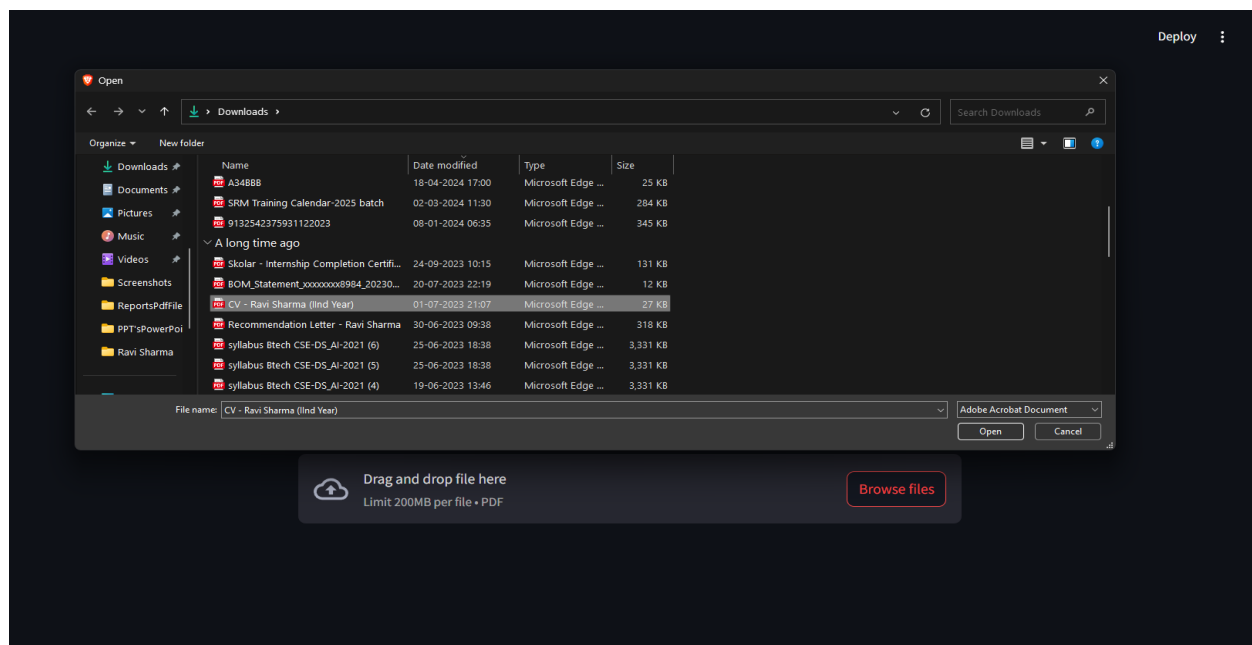
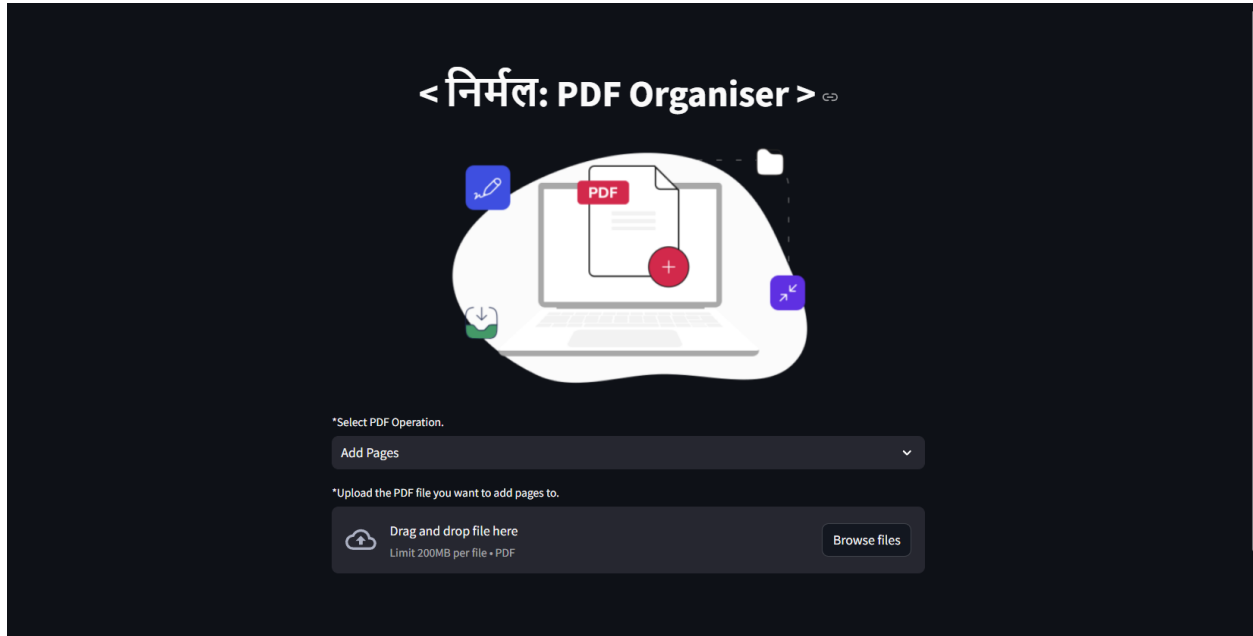**3. After successfully uploading the files users are asked to enter the password of the PDF to unlock it.**
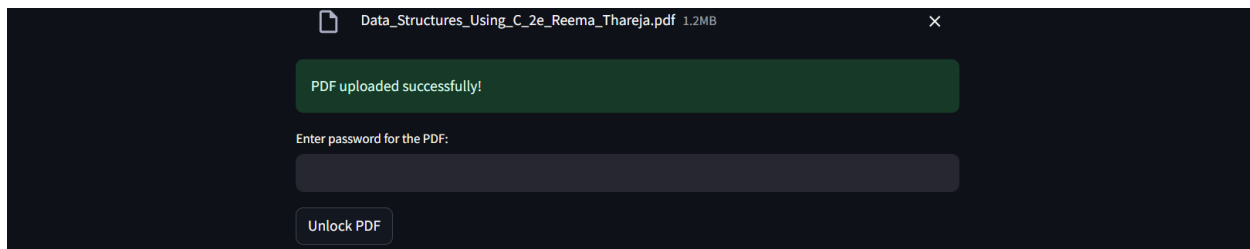
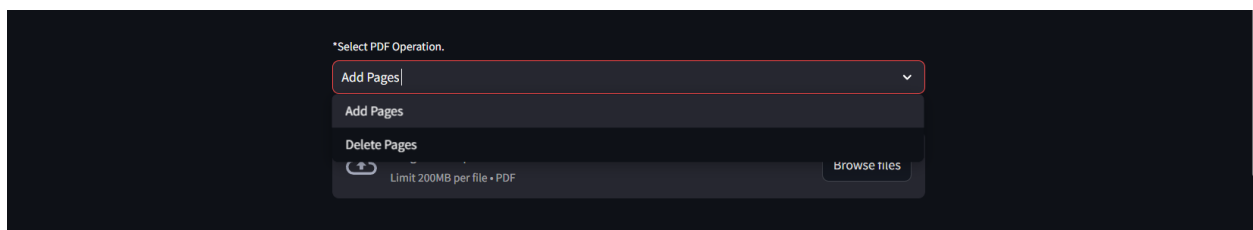**4. After successfully entering the password and on clicking "Unlock PDF" button users can download the Unlocked PDF.**

D. Organsie PDF

**1. On navigating through the side bar to the "Organise PDF" Page users will see this interface.**

2. Users can choose between two operations that they perform to the PDF that are Add pages to the PDF and Delete pages from the PDF.


3. After choosing the operation that they want to perform they can browse the PDF from their device by clicking on "Browse files".

3. After successfully uploading the file the user is asked to select the file that they want to add pages from (if the user selected "Add Pages" as the operation).
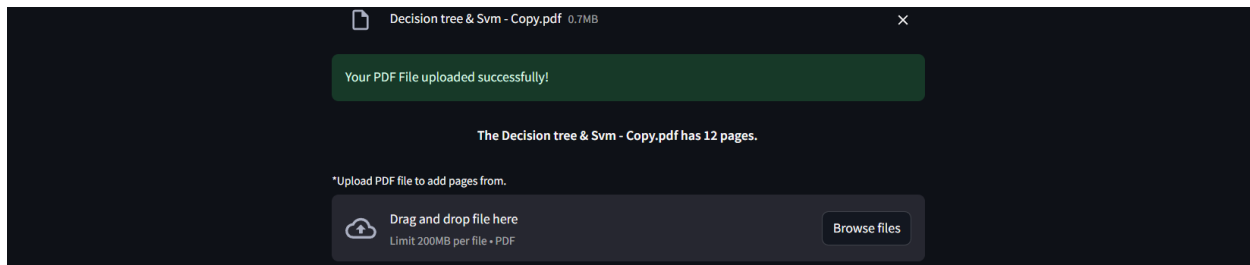
4. Users may now browse to select the file from which they want to add pages from and then type the pages they want to add (comma separated).
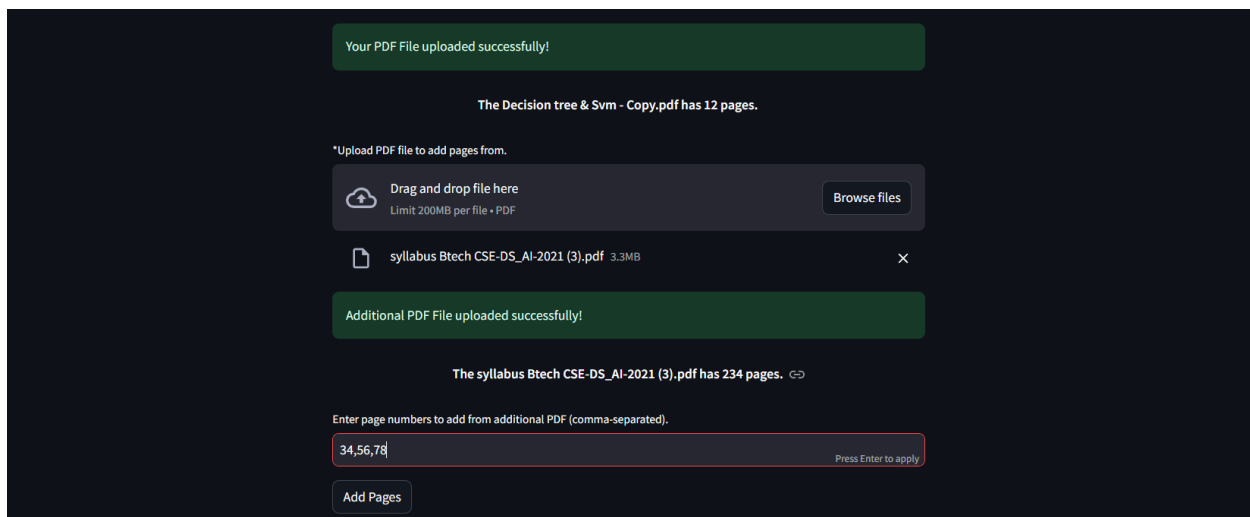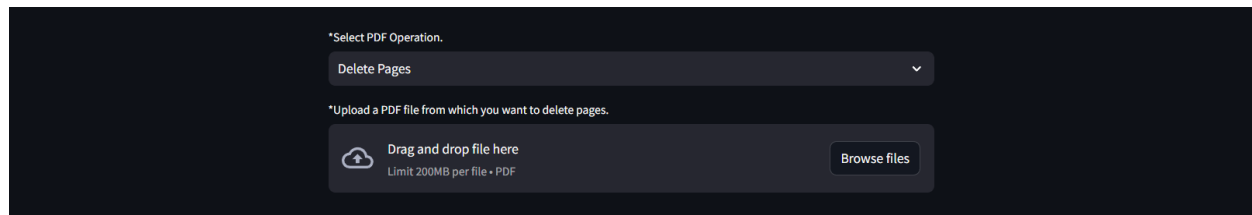

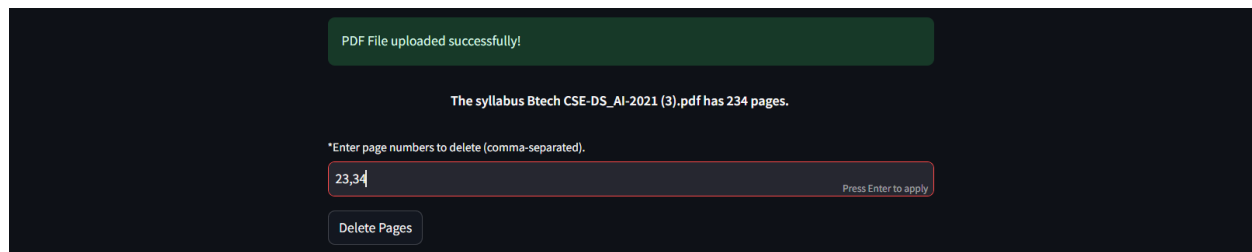**5. After Adding the pages by clicking on "Add Pages" users can now download the new PDF File with added pages.**
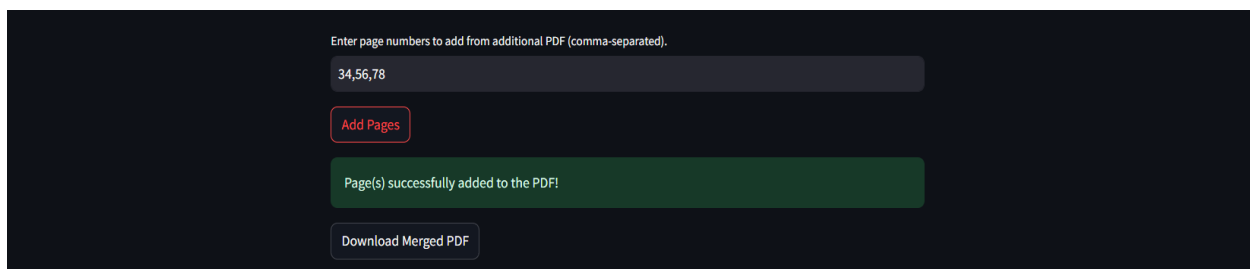
6. Now if the user wants to delete pages from the PDF, The user shall select the "Delete Pages" option from the expanded bar.

7. After browsing the file from which you want to delete the pages from the users is prompted to enter the page number that they want to delete.
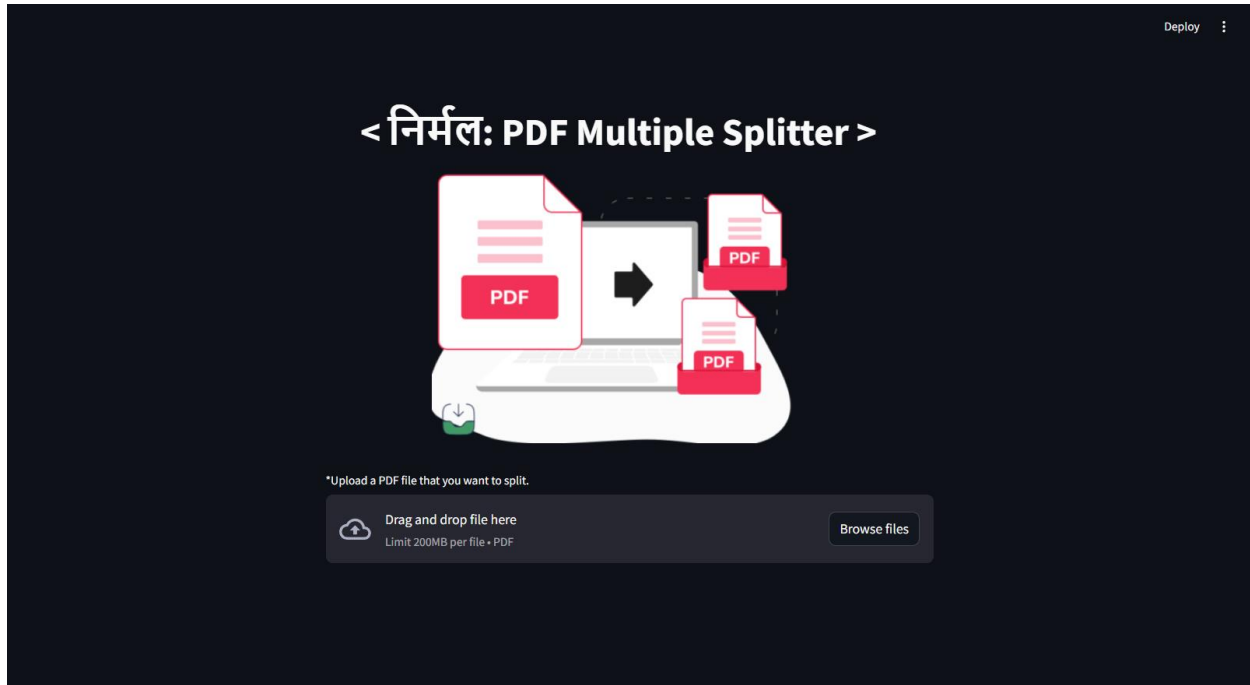

7. The user can now click on "Delete Pages" button to delete the respected pages from the PDF and download the new PDF.
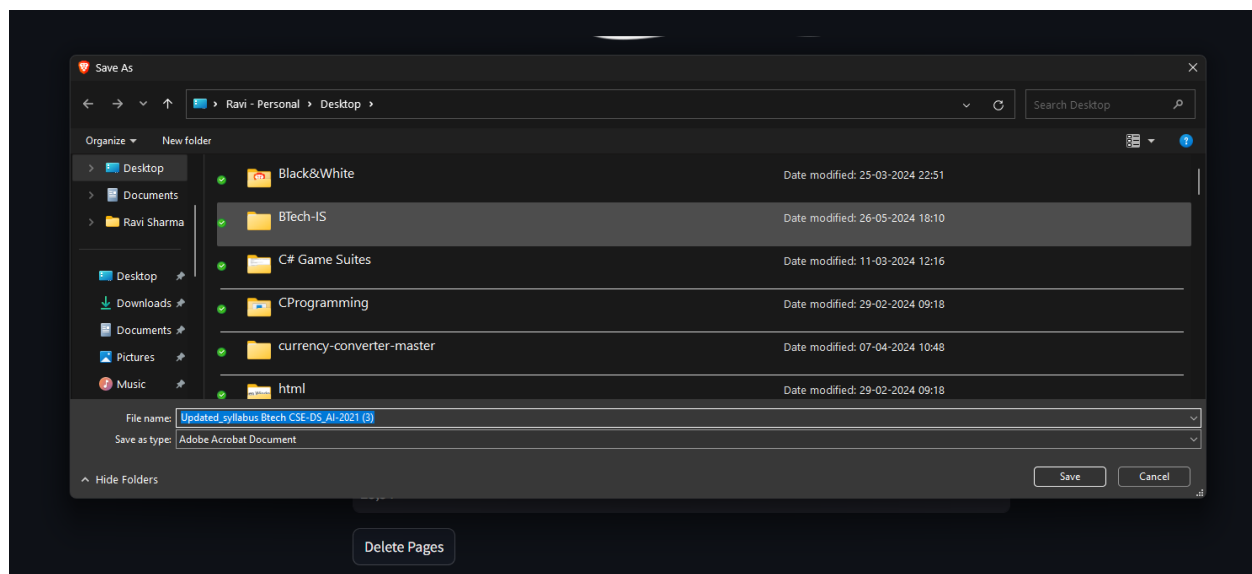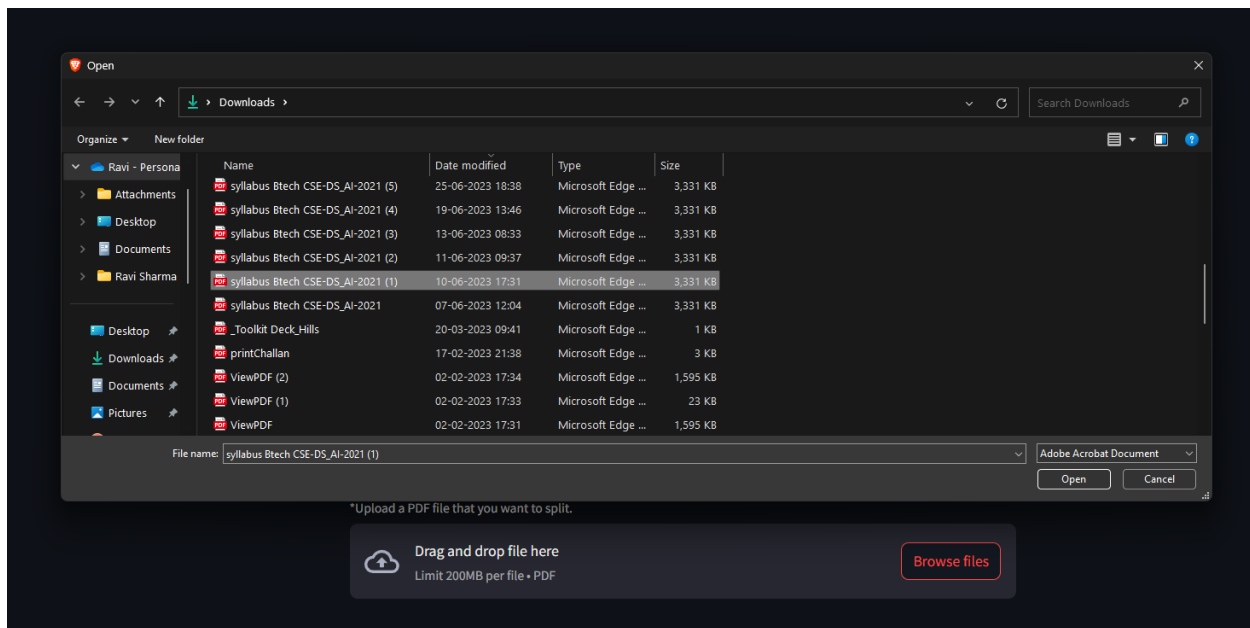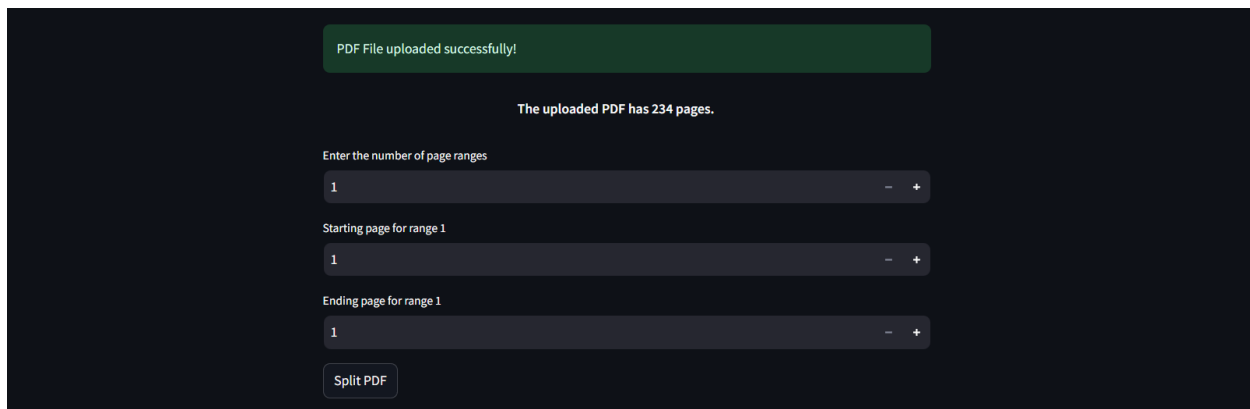
E. Split PDF

1. On navigating through the side bar to the "Split PDF" Page users will see this interface.

2. On clicking "Browse Files" users are prompted to select a PDF from their system that they want to split.

3. After successfully uploading the files users are asked to enter the number of page ranges as well "starting page for split 1" and "Ending page for split 1" and so on.
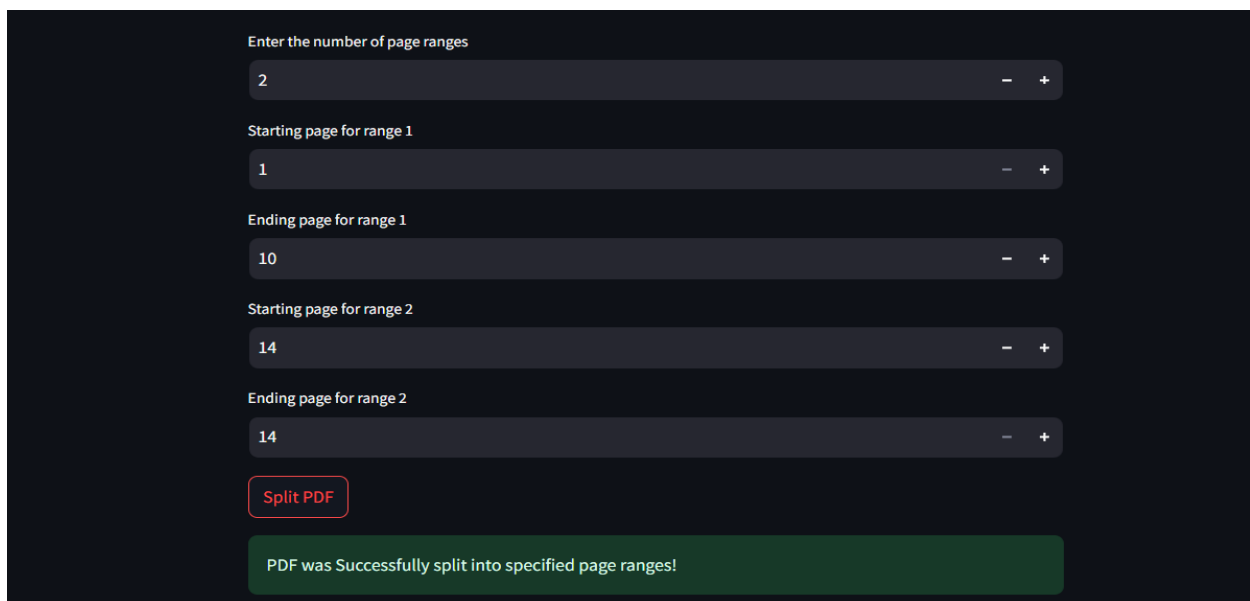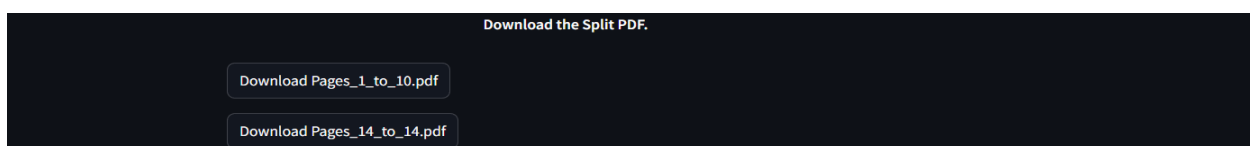

3. After giving proper input ranges user may now select the "Split PDF" button to split the PDF into new PDF's

4. The user may download the individual splits of the PDF by using "Download Pages" button.

E. Extract PDF

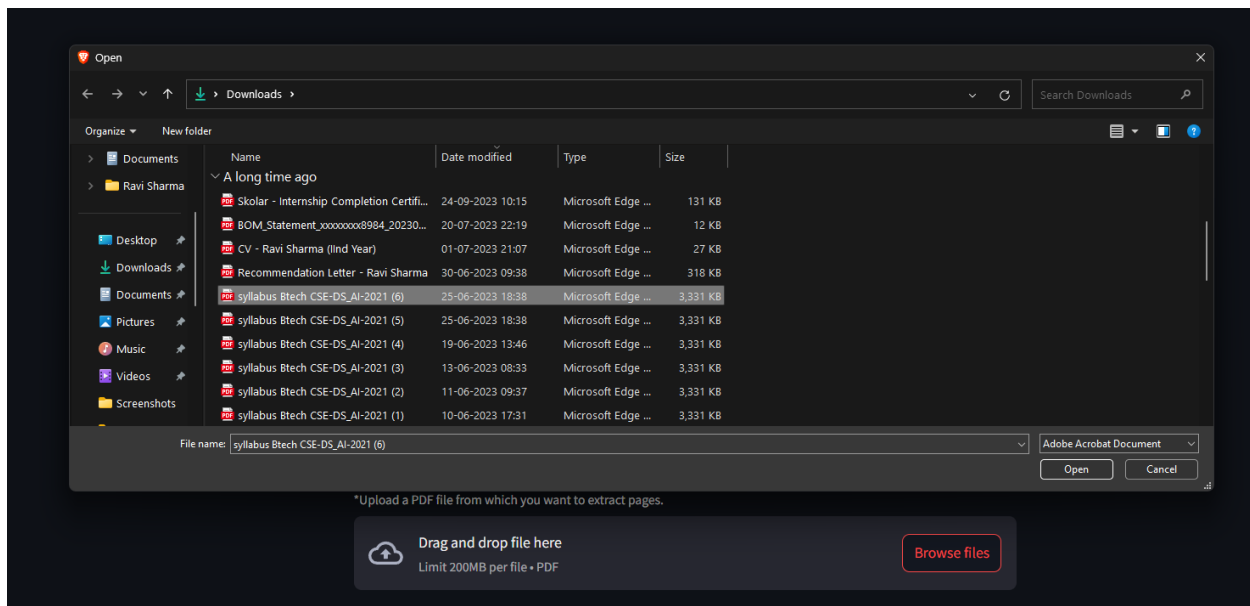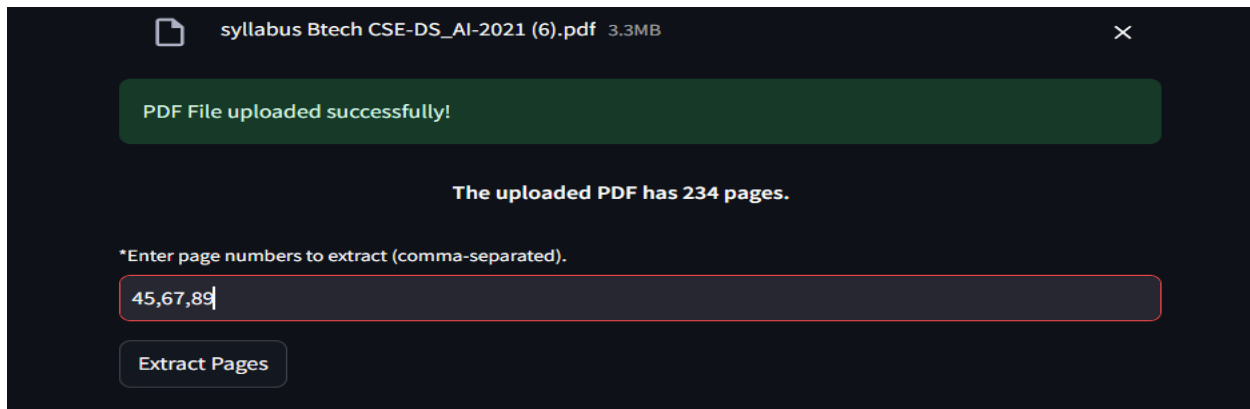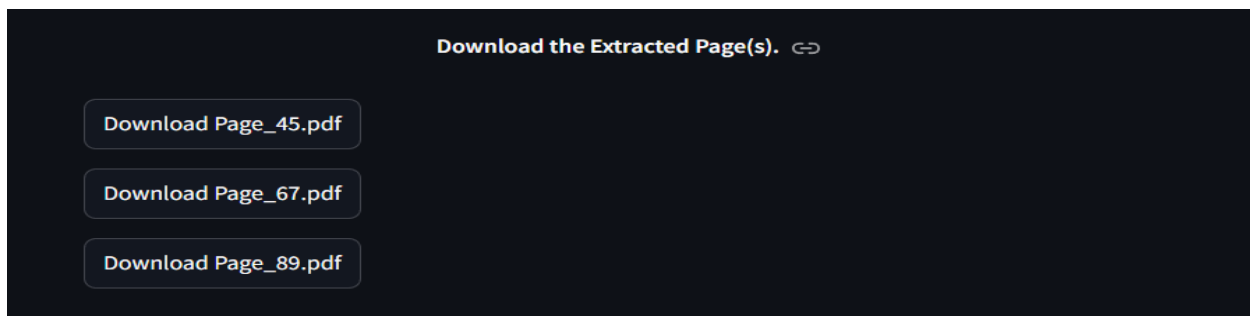**1. On navigating through the side bar to the "Extract PDF" Page users will see this interface.**
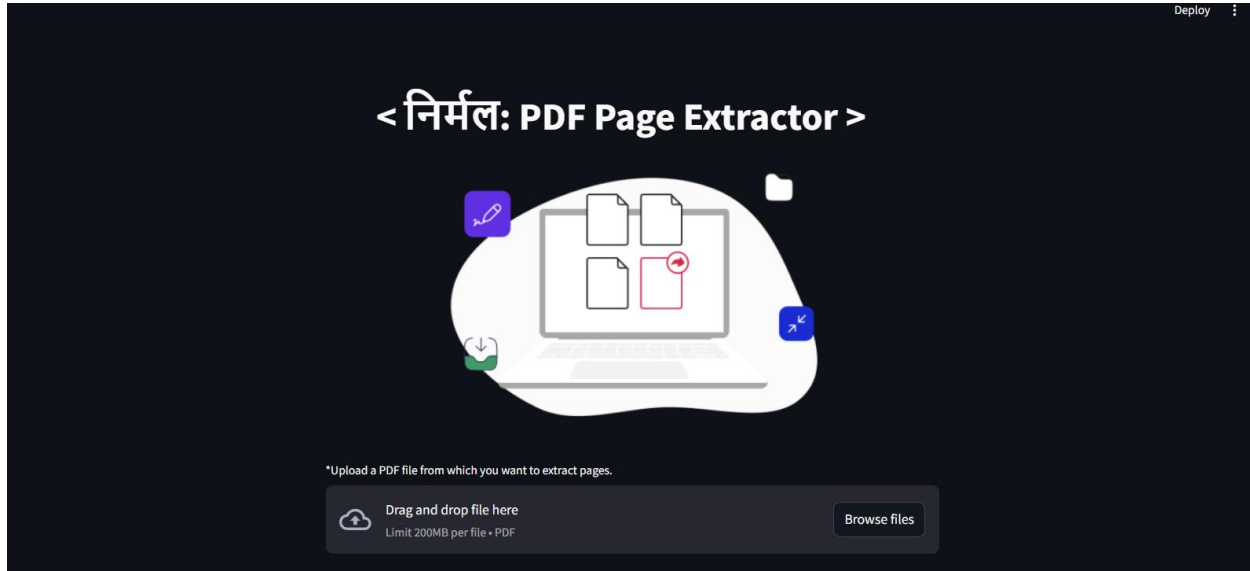
2. On clicking "Browse Files" users are prompted to select a PDF from their system from which they want to extract the pages from.
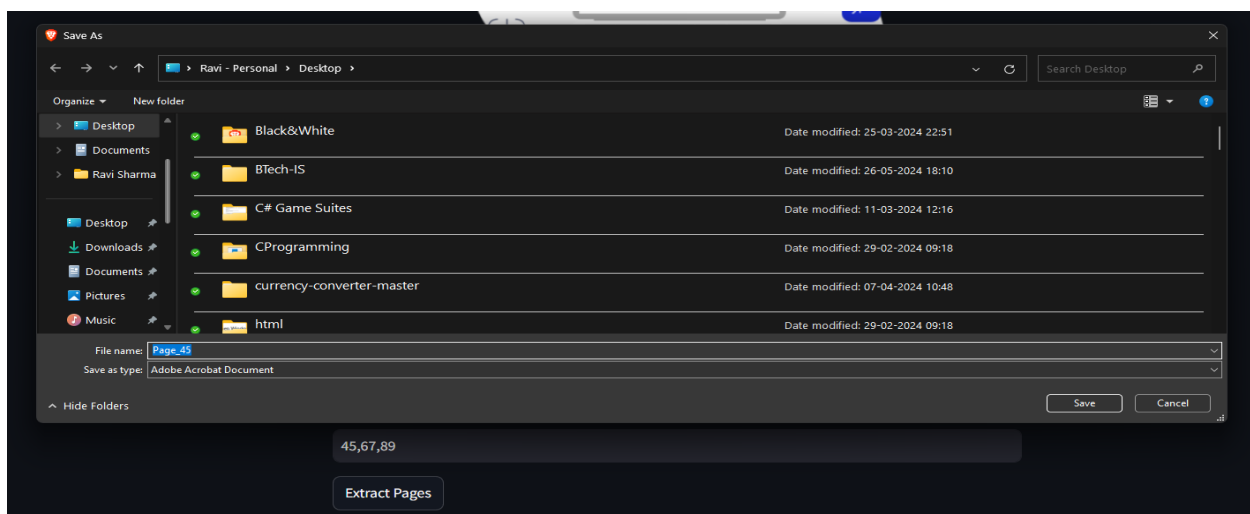
2. Now the users should enter the pages (comma separated) that they want to extract from the PDF.

3. Users should not click on the "Extract Pages" button to extract the respective pages from the PDF.
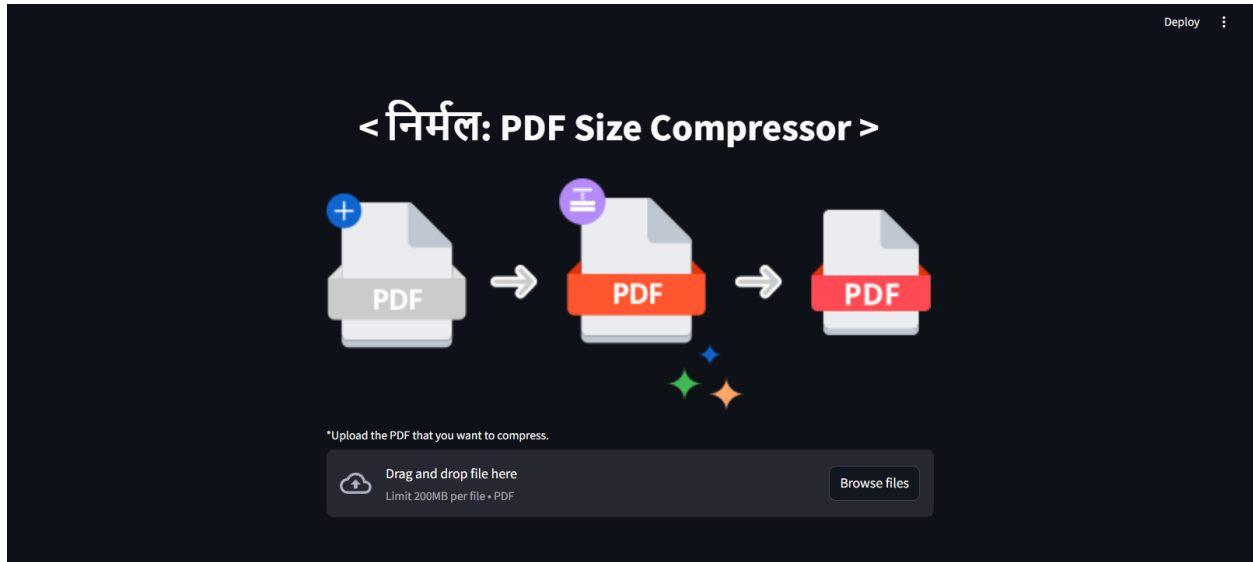

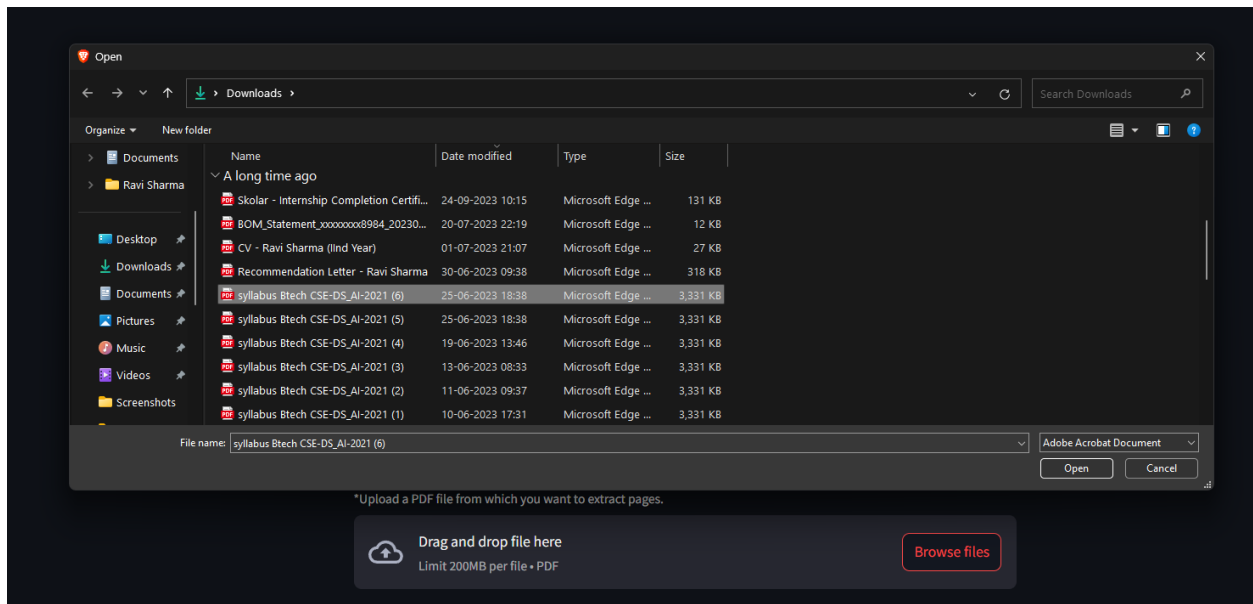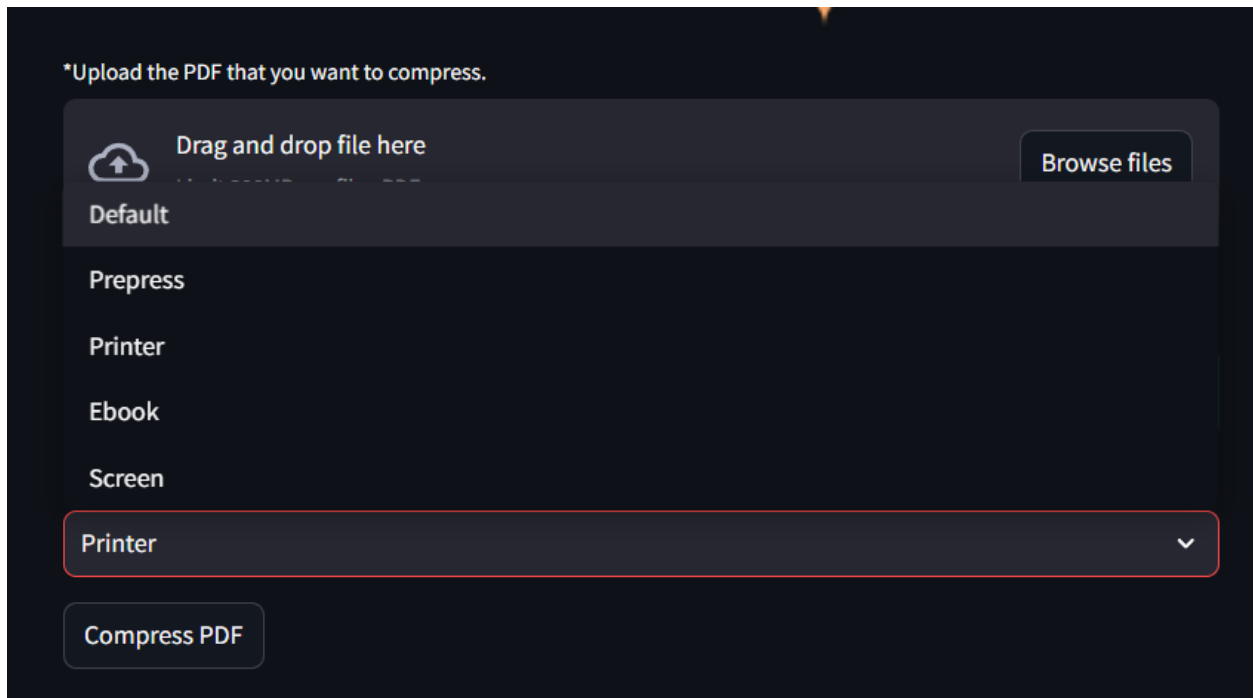**4. Users can download them using the "Download Pages" button**

F. Compress PDF

1. On navigating through the side bar to the "Compress PDF" Page users will see this interface.

2. On clicking "Browse Files" users are prompted to select a PDF from their system from which they want to compress.

3. After successfully uploading the file user now has to select the compression level they want to achieve.
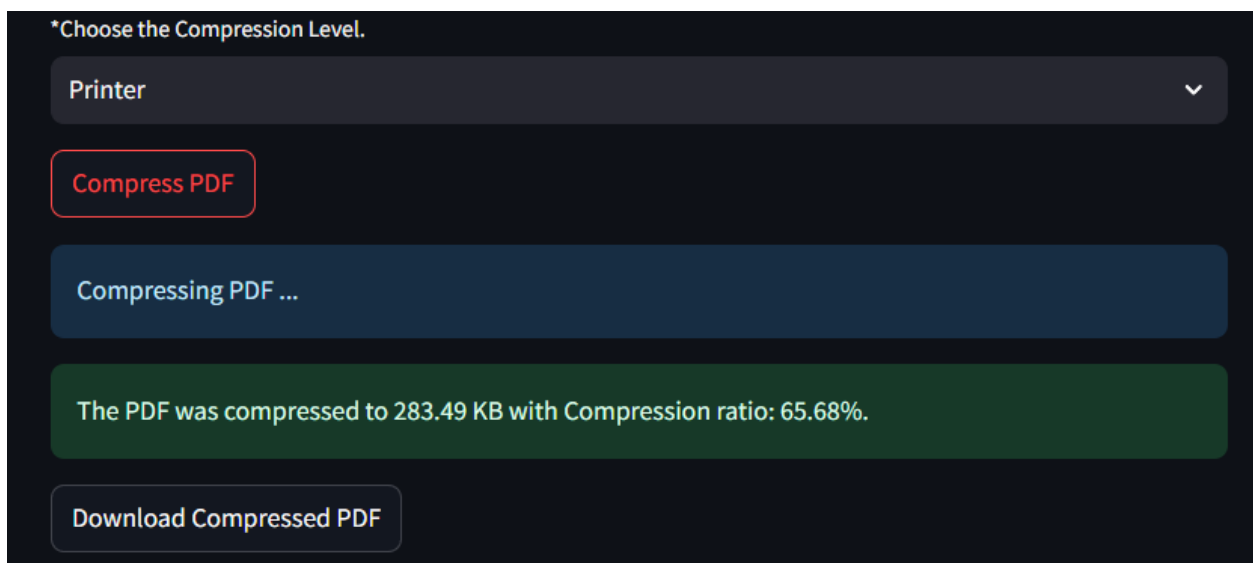

4. After selecting the compression level from the expandable bar the user now has to click the "compress PDF" button.

5. The PDF has been successfully compressed and the user can download the compressed PDF by clicking on the "Download Compressed PDF" button.
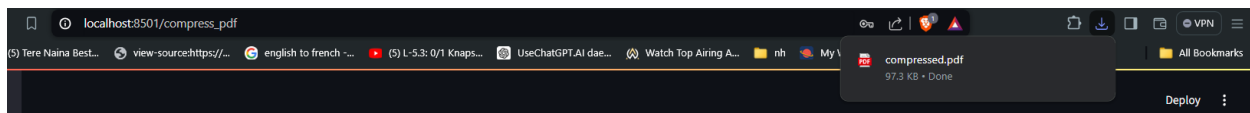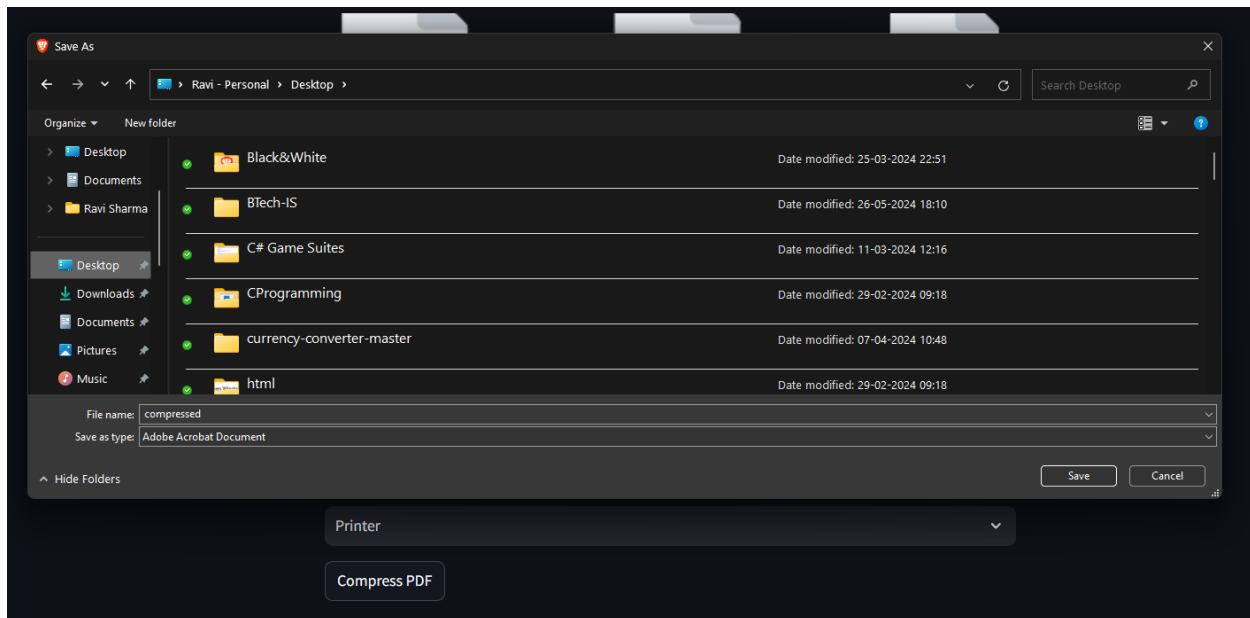
6. Similarly users can compress the file to any of the compression level they desire.
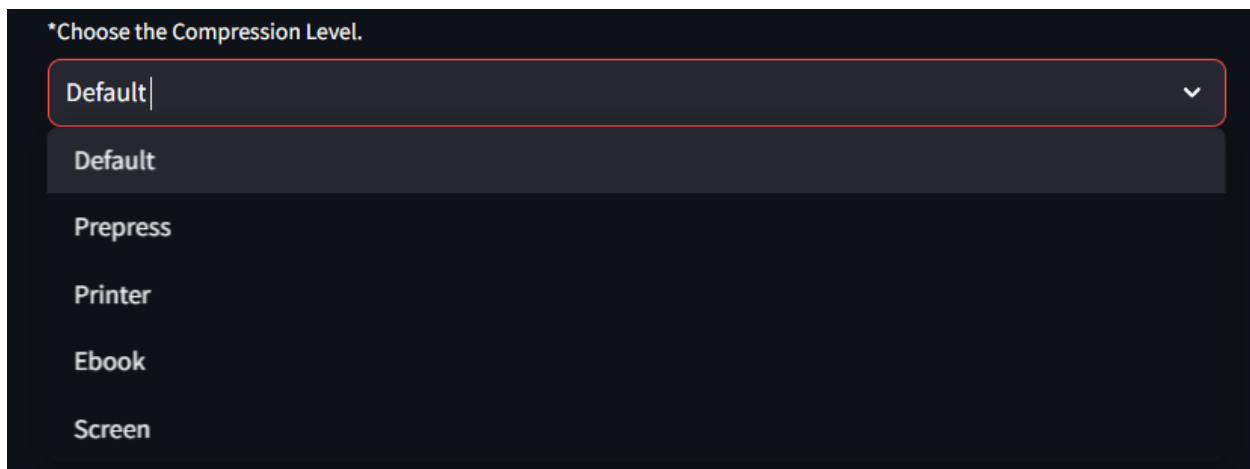
3.4.1 Exiting the Application

1. To exit the application the user has to navigate to "Logout" page under the Account section of the application.

2. Users are shown the message that "They are logged in" and are provided "Logout" button which allows the user to exit the application.

3. Clicking on the "Logout" button takes user to the "Login" page of the application.

4. Troubleshooting & Support

This section provides detailed instructions for recovering from errors and performing corrective actions, as well as information on how to obtain support.
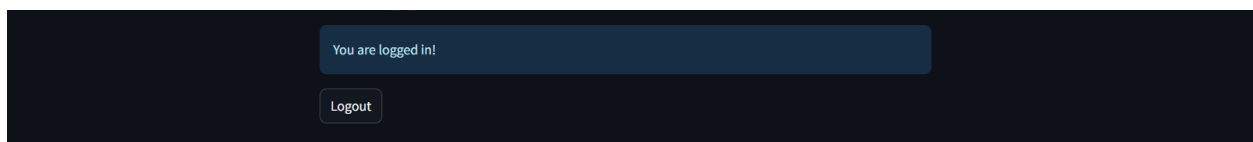
4.1 Error Messages

Error Message	Likely Cause	Possible corrective measures
Invalid username or password.	The entered username or password is incorrect.	Verify the entered username and password. Ensure that Caps Lock is not enabled. If the problem persists, contact support.
Connection to the database failed.	The application could not connect to the database.	Check your internet connection.
Page not found.	The requested page does not exist or has been moved.	Check the URL for errors. Use the navigation menu to find the desired page.
File too large.	The uploaded file exceeds the size limit.	Reduce the file size or compress the file before uploading. Refer to the documentation for size limits.

Table1 Errors and Troubleshooting

4.2 Special Considerations

These are some special considerations that should be kept in mind -

- Browser Compatibility: Ensure you are using a supported browser. The application performs best on the latest versions of Chrome, Firefox, or Edge.

- Clearing Cache: If you encounter unexpected behavior, try clearing your browser cache and cookies.

- Session Expiry: If the application remains idle for too long, your session may expire. Log in again to continue using the application.

- Security Protocols: Ensure that your system's security protocols (e.g., firewalls, antivirus software) are not interfering with the application.