# Assignment 3

**Task**: Develop a Python-based tool to compress the pages of a PDF by resizing them to 1/4th of their original size.

## Requirements:

**1. Input**:
 • Users should be able to upload multiple PDF files.

**2. Processing**:
 • Each page in the uploaded PDFs must be resized to 1/4th of its original dimensions, ensuring the content remains readable.
 • Maintain the original page order and content integrity during processing.

**3. Output**:
 • Generate a new compressed PDF with all pages resized accordingly.

**4. Tools/Technologies:**
 • Python
 • Libraries:
 • PyPDF2: For reading and writing PDF files.
 • Pillow (PIL): For image resizing.
 • Fitz (PyMuPDF): For advanced PDF manipulation and rendering

## Deliverables:
### 1. A fully functional Python script or tool that:
 • Accepts user-uploaded PDF files.
 • Processes each PDF and resizes its pages to 1/4th of their original size.
 • Outputs the compressed PDF.
### 2. Well-commented source code for better understanding and maintenance.

## Learning Outcomes:

 • Hands-on experience in PDF processing and manipulation using Python.
 • Practical knowledge of working with libraries like PyPDF2, Pillow, and Fitz.
 • Skills in optimizing and handling document layouts effectively.