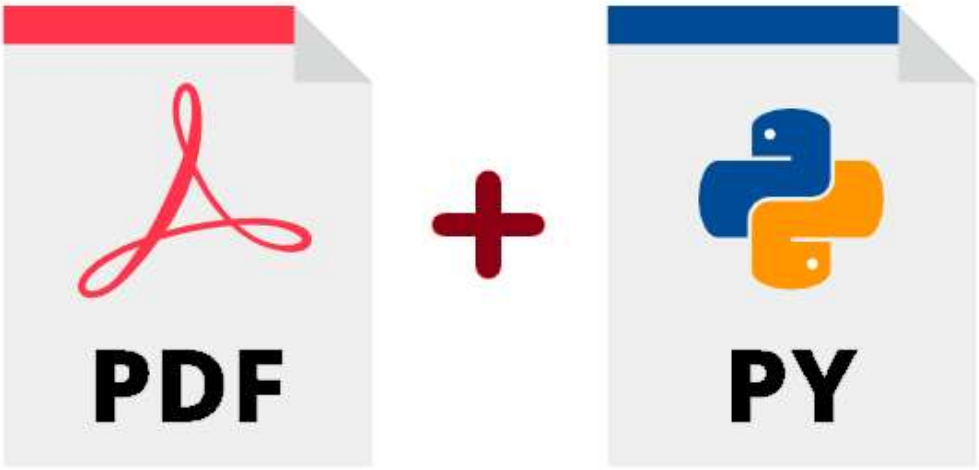
Pdf in Python by PyPDF3



What is PyPDF3?

PyPDF3 is a pure-python library for working with PDF files.

We can use PyPDF3 to:

- **Extract document information from a PDF file in Python**
- **Rotate pages**
- **Merge PDFs**
- **Split PDFs**

- **Add watermarks**
- **Encrypt a PDF**

1. How to install and use the PyPDF3

In the pip write => **pip install PyPDF3**

Using PyPDF3 => `import PyPDF3 as MyPdf`

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2. Extracting document information (Title, Author , …)

We can extract these information from Pdf file:

- **Number of pages**
- **Author**
- **Creator**
- **Producer**
- **Subject**
- **Title**
- **…**

```
#-----------------------------------------------------

import PyPDF3  as MyPdf

#--------- open pdf file & create pdf reader object ------

MyPdfFile =open("files/test.pdf","rb")

pdf_reader=MyPdf.PdfFileReader(MyPdfFile, strict=True )

#----------get data from pdf file -----

print(pdf_reader.getNumPages() )

doc_info=pdf_reader.getDocumentInfo()

print(doc_info)

#---------- Go through all data----------

for item in doc_info:

    print("Item: ",item)

    print("Value: ", doc_info[str(item)] )

    #-------------

    FullInfo=str(item).removeprefix("/")+":"+doc_info[str(item)]

    print(FullInfo)

#--------------Get info one by one-------

DocAuthor=doc_info['/Author']

DocCreator=doc_info['/Creator']

DocProducer=doc_info['/Producer']
```

```
DocSubject=doc_info['/Subject']
DocTitle=doc_info['/Title']
DocCreationDate=doc_info['/CreationDate']
#-------Combile all info -------
info=f"""
Author:{DocAuthor} _
Creator:{DocCreator} _
Producer:{DocProducer} _
Subject:{DocSubject} _
Title:{DocTitle} _
CreationDate:{DocCreationDate}
"""
#----------------------
print(info)
MyPdfFile.close()
```

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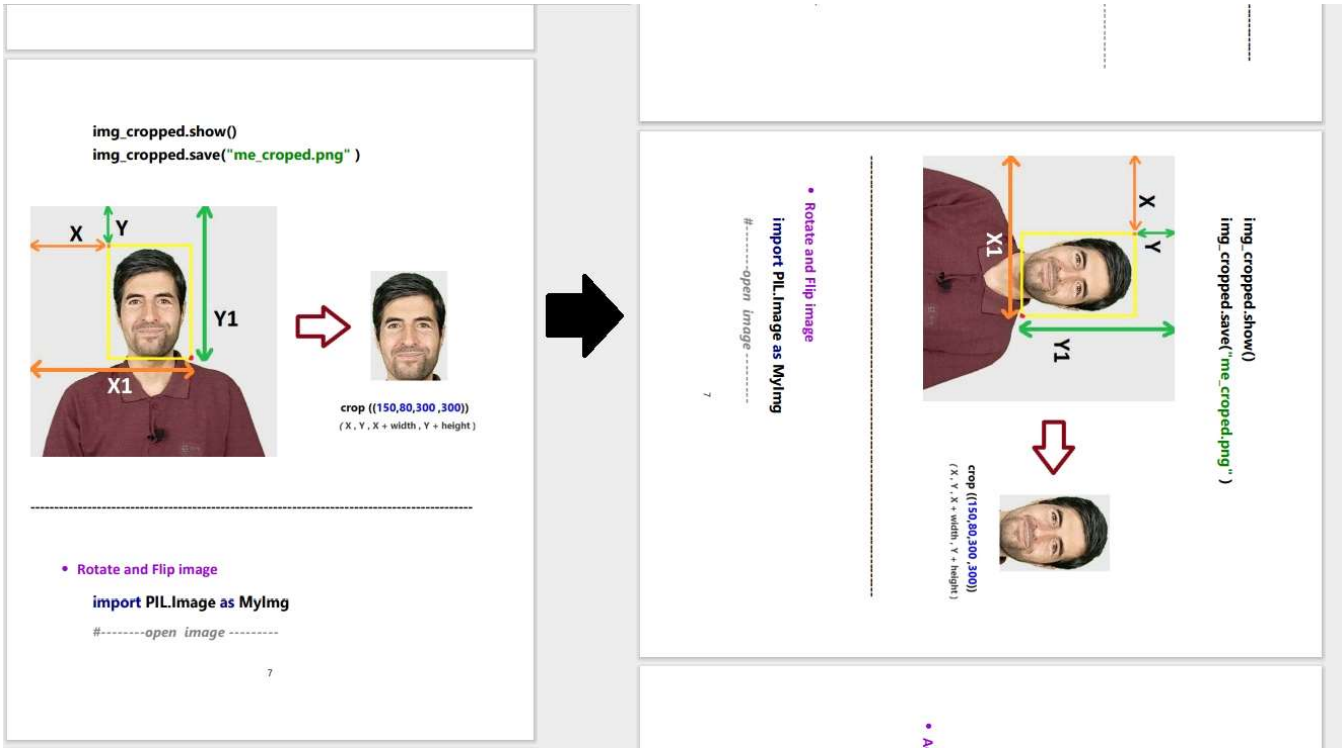
2. Rotating PDF pages




```
#-------------------------------------------------------------
import PyPDF3  as MyPdf
#---------open pdf file & create pdf reader object ------
OrgPdfFile =open("files/test.pdf","rb")
pdf_reader=MyPdf.PdfFileReader( OrgPdfFile , strict=False )
 # ---- create a pdf writer for new pdf file ---
PdfWriter = MyPdf.PdfFileWriter()
# ----- rotate all pages one by one -----
for page in range(pdf_reader.numPages):
```

```
    # ------ create rotated page object ----------
     pageObj = pdf_reader.getPage(page)
     pageObj.rotateClockwise(90) # rotation degree
    #------ add  rotated page object to pdf writer------
     PdfWriter.addPage( pageObj )


#-------- create new pdf file object --------
NewPdfFile = open( "files/rotated_Pdf_File.pdf", "wb")
# ----- write rotated pages to new pdf file-----
PdfWriter.write( NewPdfFile )
# ----close the original pdf file ---------
OrgPdfFile.close()
# ------close the new pdf file ------------
NewPdfFile.close()
```

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3. Merging PDF files

```
#--------------------------------
import PyPDF3 as MyPdf
# ----- create pdf file merger object ----------
PdfMerger = MyPdf.PdfFileMerger(strict=False)
# ------ append pdf files one by one ----------
PdfMerger.append("files/Test_Pillow.pdf")
PdfMerger.append("files/test.pdf")
# ----- write the combined pdf to output pdf file ------
MergedPdfFile=open("files/MergedPdf.pdf", "wb")
PdfMerger.write(MergedPdfFile)
#--------------------------------

PdfMerger.close()

MergedPdfFile.close()
```

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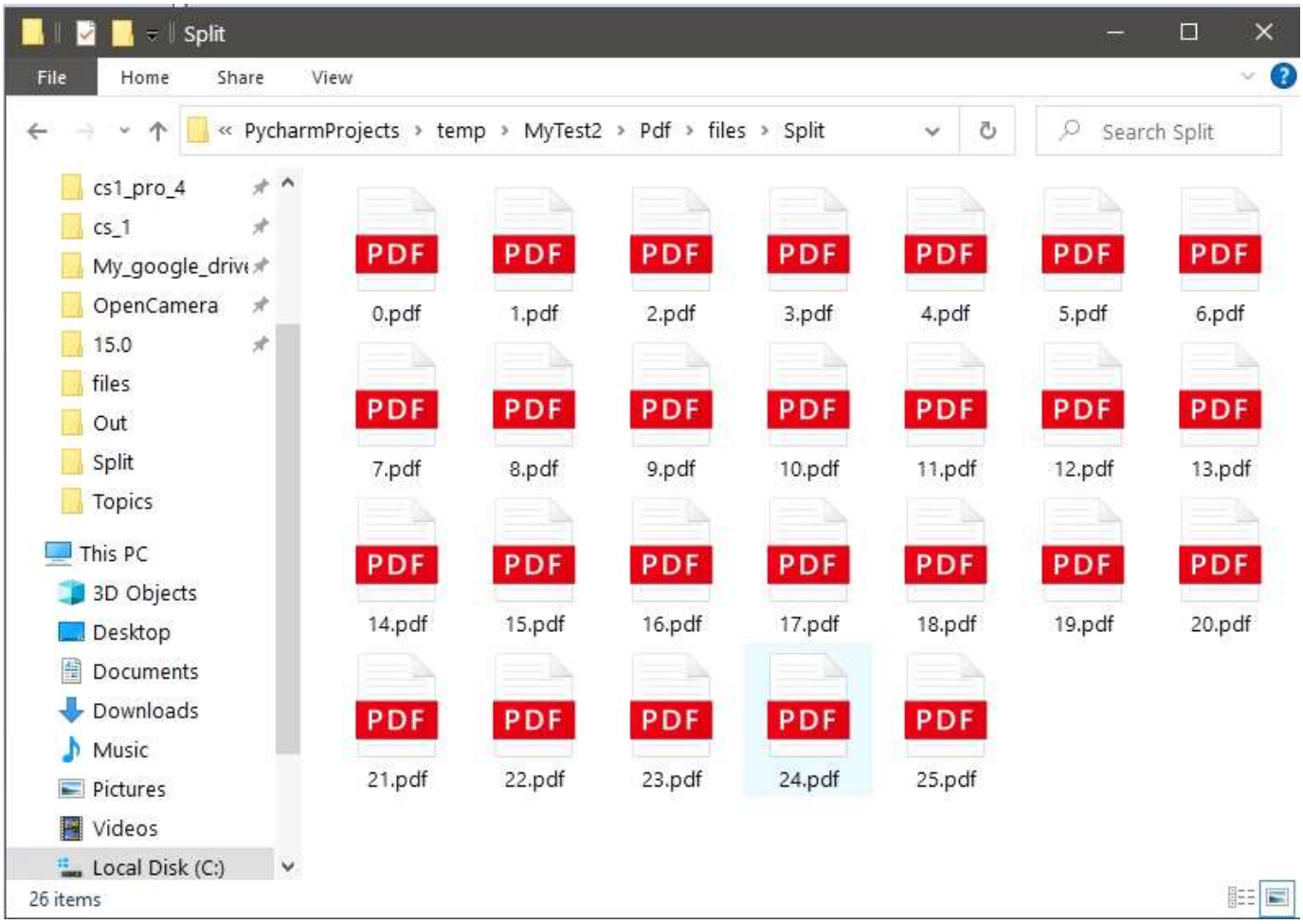
4. Splitting PDF file




```
import PyPDF3  as MyPdf

#--------open pdf file & create pdf reader object ------
OrgPdfFile =open("files/Test_Pillow.pdf","rb")
```

```
pdf_reader=MyPdf.PdfFileReader( OrgPdfFile , strict=False )


#-------split all pages one by one --------
for page in range(pdf_reader.getNumPages()):
    # --------create pdf reader object  -------
    pdf_reader = MyPdf.PdfFileReader(OrgPdfFile, strict=False)

    # ---- create a pdf writer for new pdf file ---
    PdfWriter = MyPdf.PdfFileWriter()
    # --------------
    PdfWriter.addPage(pdf_reader.getPage(page))

    # ---------create splitted file name ----------------------
    SplittedPdfFileName = str(page)+".pdf"

    # -------- create new pdf file object --------
    SplitPdfFile = open("files/split/"+SplittedPdfFileName, "wb")
    PdfWriter.write(SplitPdfFile)
    SplitPdfFile.close()

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```
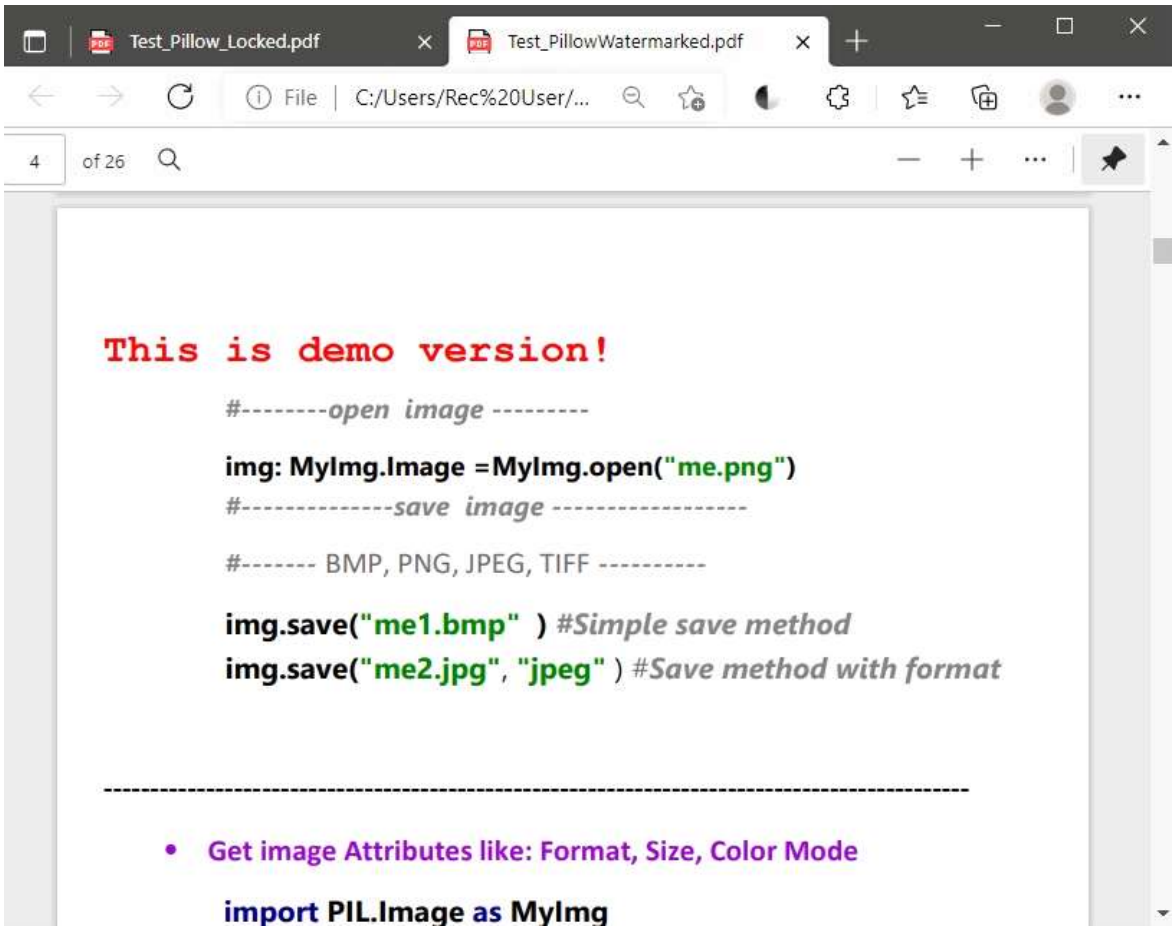

5. Adding watermark to PDF pages




```
import PyPDF3 as MyPdf

#---------Open watermark pdf file -----------------
watermark =  "files/test.pdf"
WmPdfFile =open(watermark,"rb")
#---------Create pdf reader file for watermark------
WmFileReader = MyPdf.PdfFileReader(WmPdfFile,strict=False)
```

```
WaterMarkPage = WmFileReader.getPage(0)
#----------opern original pdf file & create reader--
originalfile = "files/Test_Pillow.pdf"
OrgPdfFile =open(originalfile,"rb")
OrgPdfReader = MyPdf.PdfFileReader(OrgPdfFile,strict=False)
#--------create pdf writer for out file---------
PdfOutWrite= MyPdf.PdfFileWriter()
#-------------------------
for page in range(OrgPdfReader.getNumPages()):
    #------ get the current page of original pdf ------
    OrgPdfPage:MyPdf.pdf.PageObject=OrgPdfReader.getPage(page)
    #-------merger vm to current page of original pdf ---
    OrgPdfPage.mergePage(WaterMarkPage)
    #--------
    PdfOutWrite.addPage(OrgPdfPage)

#----------save watermarked file ------------
watermarkedfile =  "files/Test_PillowWatermarked.pdf"
OutPdfFile=open(watermarkedfile, 'wb')
PdfOutWrite.write(OutPdfFile)

#---------close all open files ----
WmPdfFile.close()
OrgPdfFile.close()
```

```
OutPdfFile.close()
```

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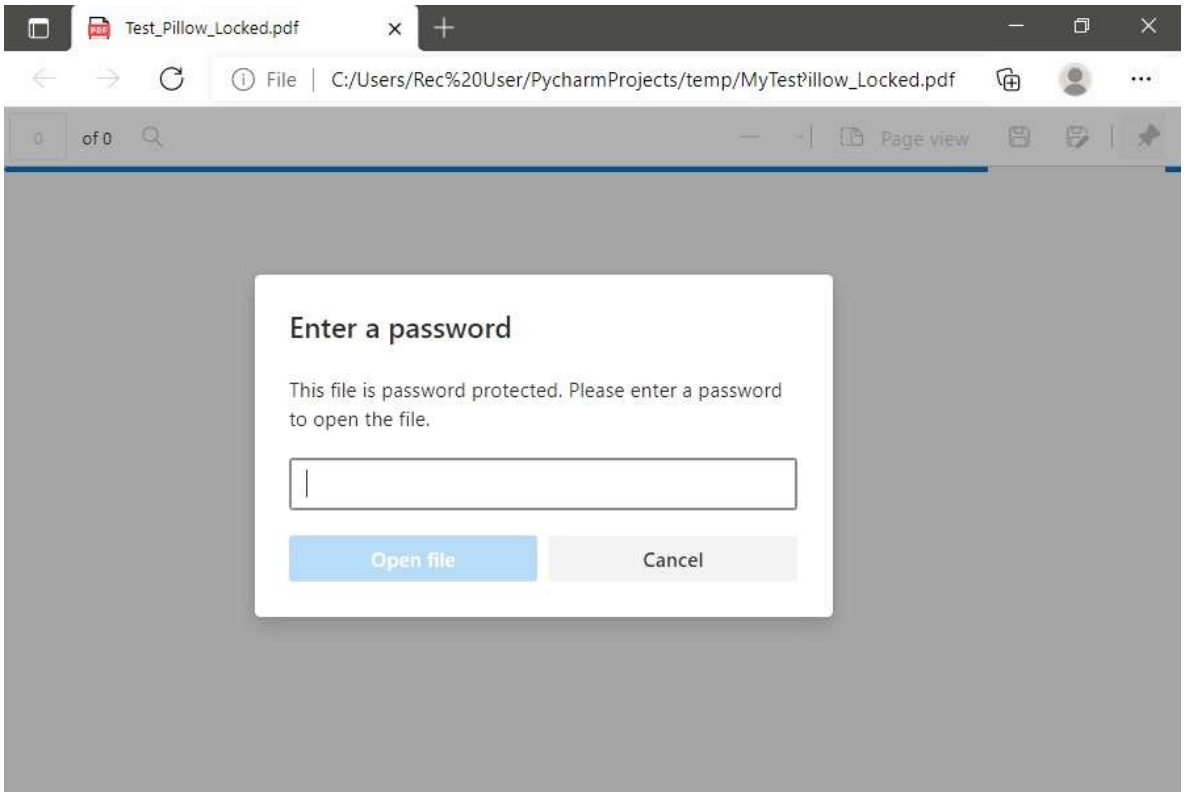
6. How to Encrypt a PDF




```
#-------------------------

import PyPDF3 as MyPdf

#---------open pdf file & create pdf reader object ------
```

```
OrgPdfFile =open("files/test.pdf","rb")
pdf_reader=MyPdf.PdfFileReader( OrgPdfFile , strict=False )
 # ---- create a pdf writer for new pdf file ---
PdfWriter = MyPdf.PdfFileWriter()

#----- Copy source Pdf to Pdf writer -------
for page in range(pdf_reader.getNumPages()):
    PdfWriter.addPage(pdf_reader.getPage(page))

#------------Encrypt Pdf file-------------
# owner_pwd => No restrictions
# user_pwd => Custom restrictions
PdfWriter.encrypt(user_pwd="111", owner_pwd=None,
use_128bit=True)

#-----------Save Encrypted file --------------
output_pdf_file= open("files/Test_Pillow_Locked.pdf", 'wb')
PdfWriter.write(output_pdf_file)

OrgPdfFile.close()
```