

Assignment 12

1. In what modes should the PdfFileReader() and PdfFileWriter() File objects will be opened?

For PdfFileReader() file objects should be opened in rb -> read binary mode, Whereas for PdfFileWriter() file objects should be opened in wb -> write binary mode.

2. From a PdfFileReader object, how do you get a Page object for page 5?

PdfFileReader class provides a method called getPage(page_no) to get a page object.

```
In [ ]: # Example Code:
from PyPDF2 import PdfFileReader
pdf_reader = PdfFileReader(file_path)
for page in pdf_reader.getNumPages():
    pdf_reader.getPage(page)
```

3. What PdfFileReader variable stores the number of pages in the PDF document?

getNumPages() method of PdfFileReader class stores the no pages in a PDF document

```
In [ ]: #Example Code:
from PyPDF2 import PdfFileReader
pdf_reader = PdfFileReader(file_path)
print(pdf_reader.getNumPages()) # Prints the no of pages in a input document
```

4. If a PdfFileReader object's PDF is encrypted with the password swordfish, what must you do before you can obtain Page objects from it?

If a PdfFileReader object's PDF is encrypted with the password swordfish and you're not aware of it. first read the Pdf using the PdfFileReader Class. PdfFileReader class provides a attribute called isEncrypted to check whether a pdf is encrypted or not. the method returns true if a pdf is encrypted and vice versa. if pdf is encrypted use the decrypt() method provided by PdfFileReader class first then try to read the contents/pages of the pdf, else PyPDF2 will raise the following error PyPDF2.utils.PdfReadError: file has not been decrypted

```
In [ ]: #Example Code:
from PyPDF2 import PdfFileReader
pdf_reader = PdfFileReader(file_path)
if pdf_reader.isEncrypted: # to check whether the pdf is encrypted or not
    pdf_reader.decrypt("swordfish")
for page in pdf_reader.pages:
    print(page.extractText()) # to print the text data of a page from pdf
```

5. What methods do you use to rotate a page?

PyPDF2 Package provides 2 methods to rotate a page:

1. rotateClockWise() -> For Clockwise rotation
2. rotateCounterClockWise() -> For Counter Clockwise rotation

The PyPDF2 package only allows you to rotate a page in increments of 90 degrees. You will receive an AssertionError otherwise.

6. What is the difference between a Run object and a Paragraph object?

The structure of a document is represented by three different data types in python-Docx. At the highest level, a Document object represents the entire document. The Document object contains a list of Paragraph objects for the paragraphs in the document. (A new paragraph begins whenever the user presses ENTER or RETURN while typing in a Word document.) Each of these Paragraph objects contains a list of one or more Run objects.

The text in a Word document is more than just a string. It has font, size, color, and other styling information associated with it. A style in Word is a collection of these attributes. A Run object is a contiguous run of text with the same style. A new Run object is needed whenever the text style changes.

7. How do you obtain a list of Paragraph objects for a Document object that's stored in a variable named doc?

```
In [ ]: # Example Program
from docx import Document
doc = Document("sample_file.docx") # Path of the Docx file
print(doc.paragraphs) # Prints the List of Paragraph objects for a Document
for paragraph in doc.paragraphs:
    print(paragraph.text) # Prints the text in the paragraph
```

8. What type of object has bold, underline, italic, strike, and outline variables?

'Run' object has bold, underline, italic, strike, and outline variables. The text in a Word document is more than just a string. It has font, size, color, and other styling information associated with it.

A style in Word is a collection of these attributes. A Run object is a contiguous run of text with the same style. A new Run object is needed whenever the text style changes.

9. What is the difference between False, True, and None for the bold variable?

```
In [7]: bold = True # Style Set to Bold
bold = False # Style Not Set to Bold
bold = None # Style is Not Applicable
```

10. How do you create a Document object for a new Word document?

```
In [ ]: # Example Program
from docx import Document
document = Document()
document.add_paragraph("iNeuron Full Stack DataScience Course")
document.save('mydocument.docx')
```

11. How do you add a paragraph with the text 'Hello, there!' to a Document object stored in a variable named doc?

```
In [ ]: # Example Program
from docx import Document
doc = Document()
doc.add_paragraph('Hello, there!')
doc.save('hello.docx')
```

12. What integers represent the levels of headings available in Word documents?

The levels for a heading in a word document can be specified by using the level attribute inside the add_heading method. There are a total of 5 levels starting for 0 to 4. where level 0 makes a headline with the horizontal line below the text, whereas the heading level 1 is the main heading. Similarly, the other headings are sub-heading with their's font-sizes in decreasing order.

