

**BIS 420 PROGRAMMING FOR DATA SCIENCE**  
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**CHAPTER 14 EXERCISE 14.2**  
**ILLINOIS STATE UNIVERSITY**

Write a function called `sed` that takes as arguments a pattern string, a replacement string, and two filenames; it should read the first file and write the contents into the second file (creating it if necessary). If the pattern string appears anywhere in the file, it should be replaced with the replacement string. If an error occurs while opening, reading, writing or closing files, your program should catch the exception, print an error message, and exit. Solution: [http: // thinkpython. com/ code/ sed. py](http://thinkpython.com/code/sed.py) .

```
def sed(pattern, replacement, input_filename, output_filename):  
    try:  
        with open('/Users/prajaktapohare/Library/CloudStorage/OneDrive-ILStateUniversity/BIS420/Week 14/input.txt', 'r') as infile:  
            content = infile.read()  
  
            new_content = content.replace(pattern, replacement)  
  
            with open('/Users/prajaktapohare/Library/CloudStorage/OneDrive-ILStateUniversity/BIS420/Week 14/output.txt', 'w') as outfile:  
                outfile.write(new_content)  
  
            print(f'Replacements complete. Output written to '{output_filename}'.')  
  
    except FileNotFoundError:  
        print(f'Error: File '{input_filename}' not found.')  
    except IOError as e:  
        print(f'IO error occurred: {e}')
```

```
except Exception as e:
```

```
    print(f"Unexpected error: {e}")
```

```
def main():
```

```
    pattern = '\\ '
```

```
    replacement = ''
```

```
    input_filename = '/Users/prajaktapohare/Library/CloudStorage/OneDrive-ILStateUniversity/BIS420/Week 14/input.txt'
```

```
    output_filename = '/Users/prajaktapohare/Library/CloudStorage/OneDrive-ILStateUniversity/BIS420/Week 14/output.txt'
```

```
    sed(pattern, replacement, input_filename, output_filename)
```

```
main()
```

```
Users > prajaktapohare > Library > CloudStorage > OneDrive-ILStateUniversity > BIS420 > Week 14 > BIS420_PrajaktaPohare_Ch14_14.2.py > ...
1  def sed(pattern, replacement, input_filename, output_filename):
2      try:
3          with open('/Users/prajaktapohare/Library/CloudStorage/OneDrive-ILStateUniversity/BIS420/Week 14/input.txt', 'r') as infile:
4              content = infile.read()
5
6              new_content = content.replace(pattern, replacement)
7
8              with open('/Users/prajaktapohare/Library/CloudStorage/OneDrive-ILStateUniversity/BIS420/Week 14/output.txt', 'w') as outfile:
9                  outfile.write(new_content)
10
11                 print(f"Replacements complete. Output written to '{output.txt}'.")
12
13             except FileNotFoundError:
14                 print(f"Error: File '{input_filename}' not found.")
15             except IOError as e:
16                 print(f"I/O error occurred: {e}")
17             except Exception as e:
18                 print(f"Unexpected error: {e}")
19
20     def main():
21         pattern = '\\ '
22         replacement = ''
23         input_filename = '/Users/prajaktapohare/Library/CloudStorage/OneDrive-ILStateUniversity/BIS420/Week 14/input.txt'
24         output_filename = '/Users/prajaktapohare/Library/CloudStorage/OneDrive-ILStateUniversity/BIS420/Week 14/output.txt'
25         sed(pattern, replacement, input_filename, output_filename)
26
27     main()
```