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Course: Cyber Security & Digital Forensics (CSDF)

Assignment 4

i. Code (Basic Logger)-

```
import logging

logging.basicConfig(
    level=logging.DEBUG,
    format='%(asctime)s %(levelname)s %(message)s',
    filename='/Users/sam/Workspace/Academic Assignments/CSDF/lab 4/
basic_logger.log',
    filemode='w'
)

logging.debug("Debug message")

logging.info("Informative message")

logging.error("Error message")
logging.basicConfig(
    level=logging.DEBUG,
    format='%(asctime)s - %(levelname)s- %(message)s',
    filename='basic_logger.log',
    filemode='a'
)

logging.debug('This is a log message.')
LogWithLevelName = logging.getLogger('myLoggerSample')
level = logging.getLevelName('INFO')
LogWithLevelName.setLevel(level)
```

ii. **Output -**

```
2024-09-13 03:43:58,882 DEBUG Debug message
2024-09-13 03:43:58,882 INFO Informative message
2024-09-13 03:43:58,882 ERROR Error message
2024-09-13 03:43:58,882 DEBUG This is a log message.
```

i. Code (Word Count Logger)-

```
import logging

def word_count(myfile):
    logging.basicConfig(
        level=logging.DEBUG,
        filename='/Users/sam/Workspace/Academic Assignments/CSDF/lab 4/
word_count_logger.log',
        format='%(asctime)s %(levelname)s:%(message)s',
        filemode='w'
    )

    try:
        with open(myfile, 'r') as f:
            file_data = f.read()
            words = file_data.split(" ")
            num_words = len(words)
            logging.debug("this file has %d words", num_words)
            return num_words
    except OSError as e:
        logging.error("error reading the file")

if __name__ == "__main__":
    word_count("/Users/sam/Workspace/Academic Assignments/CSDF/lab 4/words.txt")
```

ii. Output -

```
2024-09-13 11:22:27,462 DEBUG:this file has 21 words
```