PYTHON IN 10 VIDEOS

Assignment - 5

1. Write a function that copies the contents of a file named `source.txt` to a new file named `destination.txt`.

```
def copy_file(source, destination):
    with open(source, 'r') as src:
        with open(destination, 'w') as dest:
            dest.write(src.read())

# Test
# copy_file('source.txt', 'destination.txt')
```

2. Write a function that reads the contents of a file named `document.txt` and returns the number of words in the file.

```python
def count_words(filename):
    with open(filename, 'r') as file:
        text = file.read()
        words = text.split()
        return len(words)

# Test
# print(count_words('document.txt'))
```

3. Write a function that merges the contents of multiple files into a single file named `merged.txt`.

```python
def merge_files(file_list, output_file):
    with open(output_file, 'w') as outfile:
        for fname in file_list:
            with open(fname, 'r') as infile:
                outfile.write(infile.read() + '\n')

# Test
# merge_files(['file1.txt', 'file2.txt'], 'merged.txt')
```

4. Write a function that reads a CSV file named `data.csv` and prints its contents as a list of dictionaries.

```python
import csv

def read_csv_as_dicts(filename):
    with open(filename, 'r') as file:
        reader = csv.DictReader(file)
        return list(reader)

# Test
# print(read_csv_as_dicts('data.csv'))
```

5. Write a function that attempts to read a file named `protected.txt` and handles any permission errors gracefully by printing an error message.

```python
def read_protected_file(filename):
    try:
        with open(filename, 'r') as file:
            print(file.read())
    except PermissionError as e:
        print(f"Permission error: {e}")

# Test
# read_protected_file('protected.txt')
```