

## # Employee Data

```
import csv

with open("employee_data.csv", mode="w", newline="") as file:
    writer = csv.writer(file)

    writer.writerow(["Name", "Age", "Department"])
    writer.writerow(["Alice", 25, "HR"])
    writer.writerow(["Bob", 30, "Finance"])
    writer.writerow(["Charlie", 28, "IT"])

print("Employee Data Written Successfully!")

print("Reading employee_data.csv...")
with open("employee_data.csv", mode="r") as file:
    reader = csv.reader(file)
    for row in reader:
        print(row)

with open("employee_dict.csv", mode="w", newline="") as file:
    fieldnames = ["Name", "Age", "Department"]
    writer = csv.DictWriter(file, fieldnames=fieldnames)

    writer.writeheader()
    writer.writerow({"Name": "Alice", "Age": 25, "Department": "HR"})
    writer.writerow({"Name": "Bob", "Age": 30, "Department": "Finance"})
    writer.writerow({"Name": "Charlie", "Age": 28, "Department": "IT"})

print("Dictionary CSV file created successfully!")
```

## # Date and Time Record

```
import datetime

now = datetime.datetime.now()
print("System Date:", now.date())
```

```
print("System Time:", now.time())

print("Year :", now.year)
print("Month:", now.month)
print("Day :", now.day)

formatted = now.strftime("%Y-%m-%d %H:%M:%S")
print("Formatted Date & Time:", formatted)
```

## # System Time Tracking

```
import time

timestamp = time.time()
print("Current Timestamp:", timestamp)
print("Readable Time:", time.ctime())
```

```
print("Waiting for 2 seconds...")
```

```
time.sleep(2)
```

```
print("Continuing execution...")
```

## # Data Backup

```
import zipfile
import tarfile

print("Creating backup.zip...")
with zipfile.ZipFile("backup.zip", "w") as zipf:
    zipf.write("employee_data.csv")
    zipf.write("employee_dict.csv")
```

```
print("Creating backup.tar.gz...")
```

```
with tarfile.open("backup.tar.gz", "w:gz") as tar:
    tar.add("employee_data.csv")
    tar.add("employee_dict.csv")
```

```
print("Files inside backup.zip:")
with zipfile.ZipFile("backup.zip", "r") as zipf:
    print(zipf.namelist())

print("Files inside backup.tar.gz:")
with tarfile.open("backup.tar.gz", "r:gz") as tar:
    print(tar.getnames())

print("Backup completed successfully!")
```

### # Background Backup

```
import threading
import time
```

```
def background_backup():
    for _ in range(3):
        print("Backup running in background...")
        time.sleep(2)
```

```
t = threading.Thread(target=background_backup)
t.start()
```

```
print("Main program continues working...")
t.join()
```

```
print("Main thread finished!")
print("Program Completed Successfully!")
```

Outputs:

- PS D:\Internship\Day13> **python task1-5.py**  
Employee Data Written Successfully!  
Reading employee\_data.csv...  
['Name', 'Age', 'Department']  
['Alice', '25', 'HR']  
['Bob', '30', 'Finance']  
['Charlie', '28', 'IT']  
Dictionary CSV file created successfully!  
System Date: 2026-02-16  
System Time: 15:35:36.182822  
Year : 2026  
Month: 2  
Day : 16  
Formatted Date & Time: 2026-02-16 15:35:36  
Current Timestamp: 1771236336.183805  
Readable Time: Mon Feb 16 15:35:36 2026  
Waiting for 2 seconds...  
Continuing execution...  
Creating backup.zip...  
Creating backup.tar.gz...  
Files inside backup.zip:  
['employee\_data.csv', 'employee\_dict.csv']  
Files inside backup.tar.gz:  
['employee\_data.csv', 'employee\_dict.csv']  
Backup completed successfully!  
Backup running in background...  
Main program continues working...  
Backup running in background...  
Backup running in background...  
Main thread finished!  
Program Completed Successfully!