

## # 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!
```