

```
PROGRAM TemperatureConversion
```

```
IMPLICIT NONE
```

```
INTEGER :: i, n
```

```
REAL :: celsius, kelvin
```

```
CHARACTER(100) :: input_file, output_file
```

```
CHARACTER(3) :: index_number
```

```
! Enter your index number
```

```
index_number = "123" ! Replace with your actual index number
```

```
! Specify the input and output file names
```

```
input_file = "Air-Temperature.csv"
```

```
output_file = TRIM(index_number) // "-Air-Temperature-Assignment.csv"
```

```
! Open the input file
```

```
OPEN(10, FILE=input_file, STATUS='OLD', ACTION='READ')
```

```
! Open the output file
```

```
OPEN(20, FILE=output_file, STATUS='UNKNOWN', ACTION='WRITE')
```

```
! Read the number of temperature values
```

```
READ(10, *) n
```

```
! Write the header line in the output file
```

```
WRITE(20, *) 'Celsius, Kelvin'
```

```
! Read and convert the temperature values
```

```
DO i = 1, n
```

```
    READ(10, *) celsius
```

```
    kelvin = celsius + 273.15
```

```
    WRITE(20, '(F10.2, F10.2)') celsius, kelvin
```

END DO

! Close the files

CLOSE(10)

CLOSE(20)

PRINT *, "Conversion complete!"

END PROGRAM TemperatureConversion