## *Assignment 3 : Python Wrapper Test Case*

Description of the test case:

In this, analysis of Conjugate Heat Transfer of an unsteady flat plate is done using a Python wrapper. This wrapper alters the temperature of the flat plate over time according to the given equation:

WallTemp = 293.0 + 257.0 * sin(pi * 0.5 * time)

The configuration file have various parameters and settings for a computational fluid dynamics (CFD) simulation. The simulation is configured for a RANS (Reynolds-Averaged Navier-Stokes) solver with the SST (Shear Stress Transport) turbulence model. The simulation is set up for a direct mathematical problem without axisymmetric conditions, with no restart option enabled, and retaining input files.
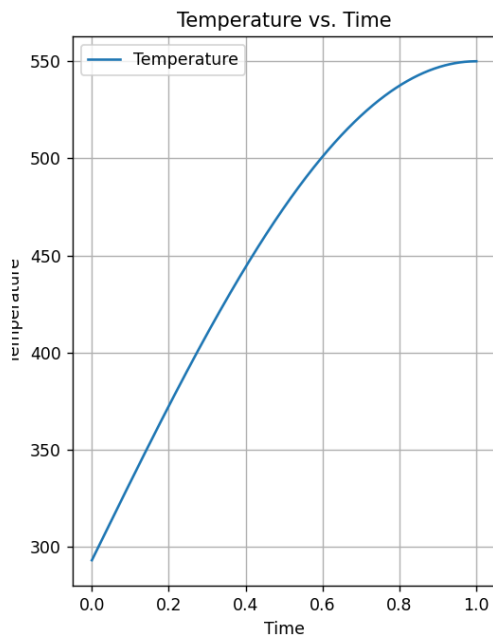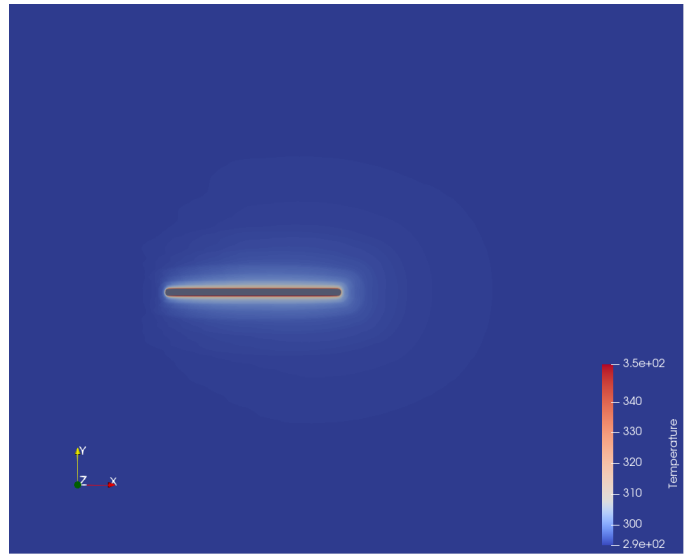

This graph illustrates the temperature variation over time. The time range is from 0 to 1, causing the wall temperature to transition from 293K to 560K
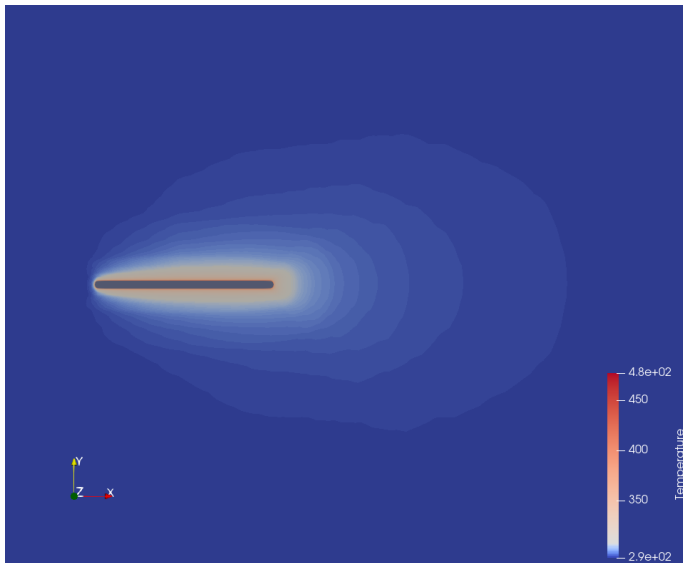
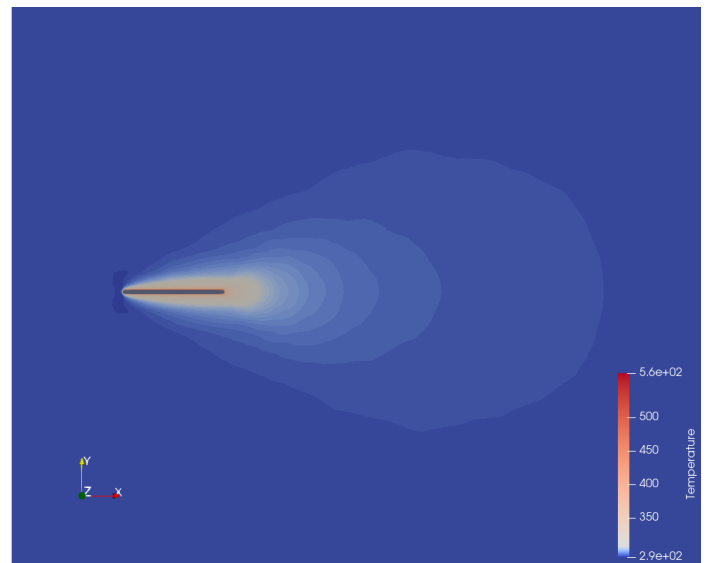**Output figures of temperature varying with time**

The temperature value at time 0.11111

The temperature value at time 0.33333

The temperature value at time 0.66666

The temperature value at time 0.99999