This is a sample solution to the project to help in debugging your code.
Given values are highlighted yellow, calculated values are highlighted orange.

Water for both hot and cold streams

$T_{h.i} := 360 \cdot K$ $\quad T_{h.o} := 300 \cdot K$ $\quad T_{c.i} := 278 \cdot K$ $\quad T_{c.o} := 283.96 K$

$m_h := 0.5 \cdot \frac{kg}{sec}$ $\quad m_c := 5.0 \cdot \frac{kg}{sec}$ $\quad U := 100 \cdot \frac{J}{s \cdot m^2 \cdot K}$ $\quad A_c := 29.81 \cdot m^2$

$$R_c := \frac{T_{h.i} - T_{h.o}}{T_{c.o} - T_{c.i}} \qquad R_c = 10.067$$

$$P_c := \frac{T_{c.o} - T_{c.i}}{T_{h.i} - T_{c.i}} \qquad P_c = 0.073$$

$$F_c := \left(\frac{\sqrt{R_c^2 + 1}}{R_c - 1}\right) \cdot \frac{\ln\left(\frac{1 - P_c}{1 - P_c \cdot R_c}\right)}{\ln\left[\frac{2 - P_c \cdot \left(R_c + 1 - \sqrt{R_c^2 + 1}\right)}{2 - P_c \cdot \left(R_c + 1 + \sqrt{R_c^2 + 1}\right)}\right]} \qquad F_c = 0.965$$

$\Delta T_1 := T_{h.i} - T_{c.o}$ $\qquad \Delta T_1 = 76.04 K$ $\qquad$ Delta T1 for countercurrent heat exchanger

$\Delta T_2 := T_{h.o} - T_{c.i}$ $\qquad \Delta T_2 = 22 K$ $\qquad$ Delta T2 for countercurrent heat exchanger

$$\Delta T_{lm} := \frac{\Delta T_2 - \Delta T_1}{\ln\left(\frac{\Delta T_2}{\Delta T_1}\right)} \qquad \Delta T_{lm} = 43.573 K$$

Delta T Log Mean

Heat capacity coefficients from the DIPPR database

$$\begin{pmatrix} A \\ B \\ C \\ D \\ E \end{pmatrix} := \begin{pmatrix} 2.7637E+05 \\ -2.0901E+03 \\ 8.1250E+00 \\ -1.4116E-02 \\ 9.3701E-06 \end{pmatrix}$$

$\text{kmol} := 1000 \cdot \text{mol}$

Molecular weight of water

$MW_{H2O} := 18.01528 \cdot \frac{\text{gm}}{\text{mol}}$

$$C_p(T) := \left[A + B\cdot\frac{T}{K} + C\cdot\left(\frac{T}{K}\right)^2 + D\cdot\left(\frac{T}{K}\right)^3 + E\cdot\left(\frac{T}{K}\right)^4\right]\cdot\frac{J}{\text{kmol}\cdot K}$$

Heat capacity

$c_{p.h} := C_p\left(\frac{T_{h.i} + T_{h.o}}{2}\right)$ $\qquad c_{p.h} = 75.285\,\frac{J}{\text{mol}\cdot K}$ Average heat capacity of hot stream fluid

$c_{p.c} := C_p\left(\frac{T_{c.i} + T_{c.o}}{2}\right)$ $\qquad c_{p.c} = 75.825\,\frac{J}{\text{mol}\cdot K}$ Average heat capacity of cold stream fluid

$q_1 := m_h\cdot\frac{c_{p.h}}{MW_{H2O}}\cdot\left(T_{h.i} - T_{h.o}\right)$ $\qquad q_1 = 1.254 \times 10^5\,W$ Heat lost from hot stream

$q_2 := m_c\cdot\frac{c_{p.c}}{MW_{H2O}}\cdot\left(T_{h.i} - T_{h.o}\right)$ $\qquad q_1 = 1.254 \times 10^5\,W$ Heat gained by cold stream

$q_3 := F_c\cdot U\cdot A_c\cdot\Delta T_{lm}$ $\qquad q_3 = 1.254 \times 10^5\,W$ Heat exchanged from hot to cold

All three values for heat transferred are equal, thereby confirming the solution.