LIST OF VARIABLES

u1(I,j) ⟶ velocity in streamwise-direction at nth time step

u2(I,j) ⟶ velocity in streamwise direction at (n+1)th time step; p(i.j) ⟶ pressure

v1(I,j) ⟶ velocity in transverse-direction at nth time step

v2(I,j) ⟶ velocity in transverse-direction at (n+1)th time step

um(I,j) ⟶ time-averaged component of velocity in streamwise-direction

vm(I,j)) ⟶ time-averaged mean component of velocity in transverse-direction

deltax(i) ⟶ (uniform or nonuniform) grid size in streamwise direction

deltay(j) ⟶ (uniform or nonuniform) grid size in transverse direction

qinlet(j) ⟶ inlet boundary condition

iim ⟶ maximum no of grid pts in streamwise direction (including imaginary node)

jim ⟶ maximum no of grid pts in transverse direction (including imaginary node)

ire,jre ⟶ (iim-1),(jim-1)

deltat ⟶ time step size between two iterations; zeit ⟶ total time elapsed upto nth iteration

uc ⟶ celerity constant for convective b.c's at outflow boundary

stab ⟶ factor of safety for time step size; beta ⟶ over relaxation parameter

epsi ⟶ convergence criteria variable for comparision of divmax

imax, jmax ⟶ contains grid indices on which divergence is maximum

idtm, jdtm ⟶ contains grid indices on which velocity fluctuations are max

re ⟶ Reynolds no of flow

jn1, jnim ⟶ variables for imposing no-slip or free-slip b.c's

iexit ⟶ (varies from 1-4) variable for applying desired b.c's at outflow boundary

istop ⟶ for finally writing files & stopping execution of program

irest ⟶ to run the code from scratch (=0) or to restart/execute the code from previously stored results

ita ⟶ outer iteration level for marching in time (N-S iteration)

iti ⟶ inner iteration variable (for satisfying continuity eq)