- *Describe physically the problem based on the values of the BC :*
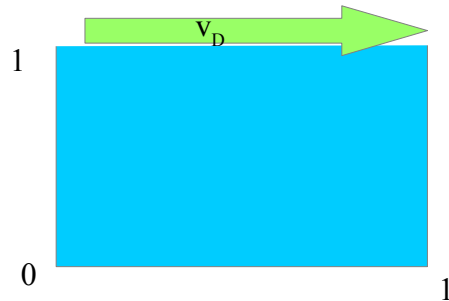
We have imposed velocity at the upper boundary and the other boundaries are considered fixed. This means we have a moving fluid at the top of the cavity and the other parts are simply immobile (support).

- *Solve the problem using different element types :*

Element Type	Stability
P1P1	UNSTABLE
P2P1	STABLE
Q1Q1	UNSTABLE
Q2Q1	STABLE
P1P1 Bubble functions	STABLE

Both P1P1 and Q1Q1 are unstable. This is not surprisung since they do not meet the requirements of the LBB condition.

In order to implement stabilization we can use Galerkin Least-Square method to make the solution stable. Since these two element types are linear for velocity and pressure we only have to add the L matrix to the system and the f_q source term.