

CFD OpenFOAM LAB

Assignments

CL455

Chemical Engineering Department

FOSSEE
IIT Bombay

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(MHRD)

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General Instructions:



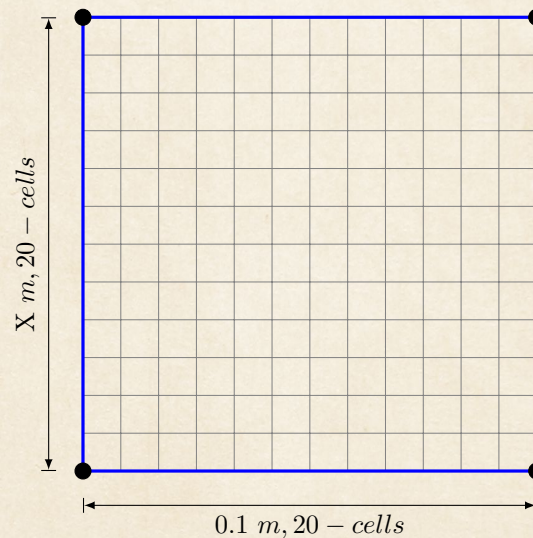
Assignment 1: Modify cavity height and cell

In the spoken tutorial no. 4, we learn to define vertices, block and boundary patches. To practice that, update blockMeshDict file from the cavity case that you have copied in spoken tutorial no. 3 Setting up a test case as shown below.

Execute commands used in tutorial no. 3 and submit case files with velocity contour screenshot.

$X = (\text{sum of the last three digits of your roll no.}) * 0.15$

For Roll no. 170020122; $X = (1+2+2) * 0.15 = 0.75 \text{ m}$



Assignment 2: Refine cavity using multiple blocks

In the spoken tutorial no. 5, we learn to define multiple blocks. To practice that, use blockMeshDict file from cavity case that you have copied in spoken tutorial no. 3 Setting up a test case and split into 2 blocks from the center of height as shown in figure below.

Execute commands used in tutorial no. 3 and submit case files with velocity contour screenshot.

$X = 20 + (\text{sum of the last three digits of your roll no.}) * 2$

For Roll no. 170020122; $X = 20 + (1+2+2) * 2 = 30$

