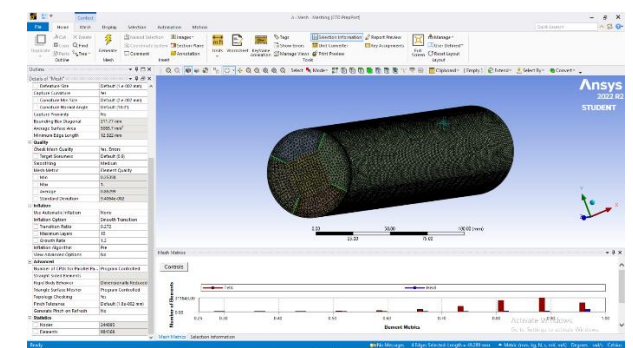
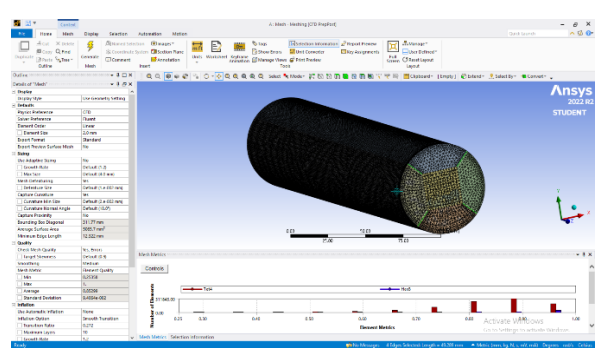
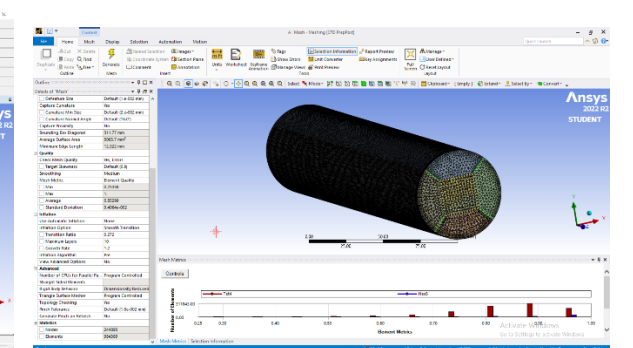
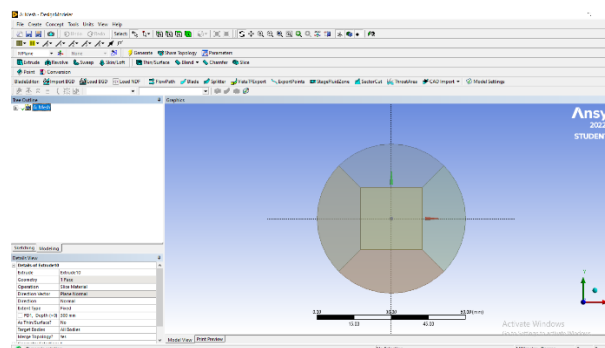
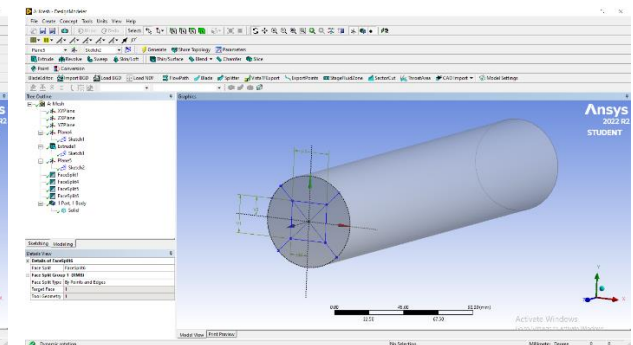
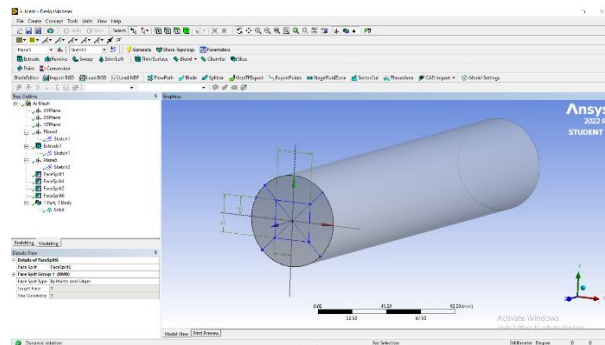
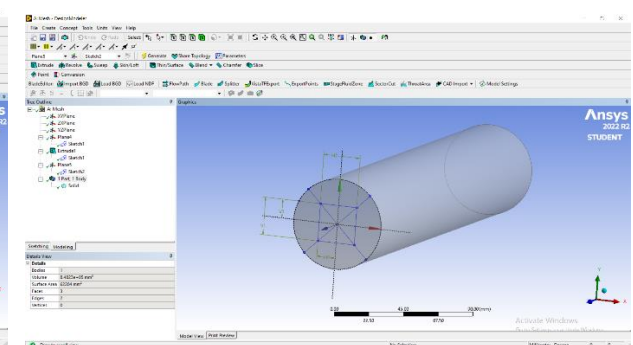
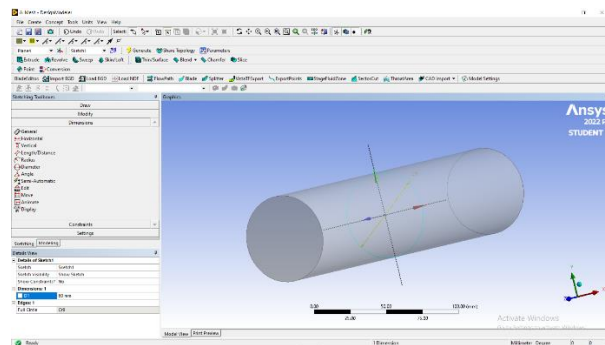


ASSIGNMENT 2

BY

MIDHUN M B

1.CYLINDRICAL PIPE



Details of "Mesh"	
Display	Use Geometry Setting
Defaults	
Physics Preference	CFD
Solver Preference	Fluent
Element Order	Linear
Element Size	2.0 mm
Export Format	Standard
Export Preview Surface Mesh	No
Sizing	
Use Adaptive Sizing	No
Growth Rate	Default (1.2)
Max Size	Default (4.0 mm)
Mesh Defeaturing	Yes
Defeature Size	Default (1.e-002 mm)
Capture Curvature	Yes
Curvature Min Size	Default (2.e-002 mm)
Curvature Normal Angle	Default (18.0°)
Capture Proximity	No
Bounding Box Diagonal	311.77 mm
Average Surface Area	5065.7 mm ²
Minimum Edge Length	12.322 mm
Quality	
Check Mesh Quality	Yes, Errors
Target Skewness	Default (0.9)
Smoothing	Medium
Mesh Metric	Element Quality
Min	0.25358
Max	1.
Average	0.85299
Standard Deviation	9.4064e-002
Inflation	
Use Automatic Inflation	None
Inflation Option	Smooth Transition
Transition Ratio	0.272
Maximum Layers	10
Growth Rate	1.2

Details of "Mesh"	
Defeature Size	Default (1.e-002 mm)
Capture Curvature	Yes
Curvature Min Size	Default (2.e-002 mm)
Curvature Normal Angle	Default (18.0°)
Capture Proximity	No
Bounding Box Diagonal	311.77 mm
Average Surface Area	5065.7 mm ²
Minimum Edge Length	12.322 mm
Quality	
Check Mesh Quality	Yes, Errors
Target Skewness	Default (0.9)
Smoothing	Medium
Mesh Metric	Element Quality
Min	0.25358
Max	1.
Average	0.85299
Standard Deviation	9.4064e-002
Inflation	
Use Automatic Inflation	None
Inflation Option	Smooth Transition
Transition Ratio	0.272
Maximum Layers	10
Growth Rate	1.2
Inflation Algorithm	Pre
View Advanced Options	No
Advanced	
Number of CPUs for Parallel Pa...	Program Controlled
Straight Sided Elements	
Rigid Body Behavior	Dimensionally Reduced
Triangle Surface Mesher	Program Controlled
Topology Checking	Yes
Pinch Tolerance	Default (1.8e-002 mm)
Generate Pinch on Refresh	No
Statistics	
Nodes	244895
Elements	984369

Diameter of PIPE : 60mm

Length of Pipe : 300mm

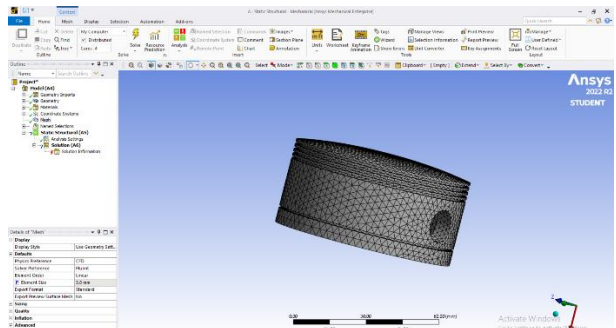
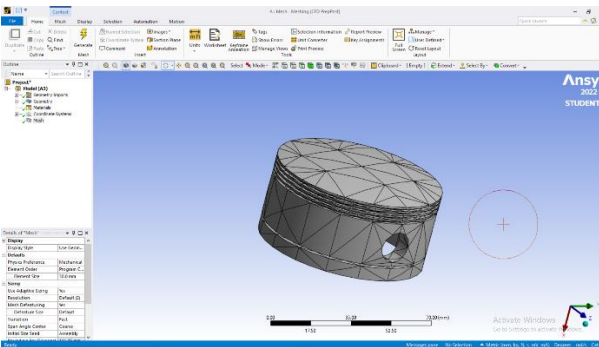
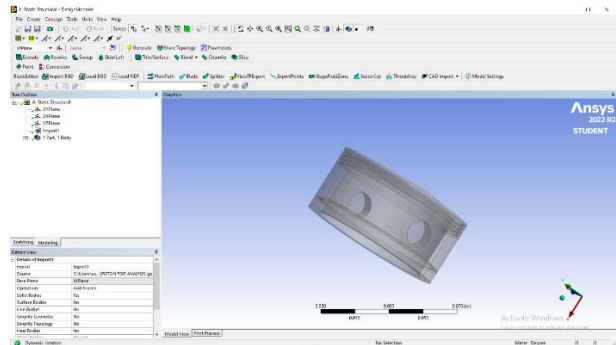
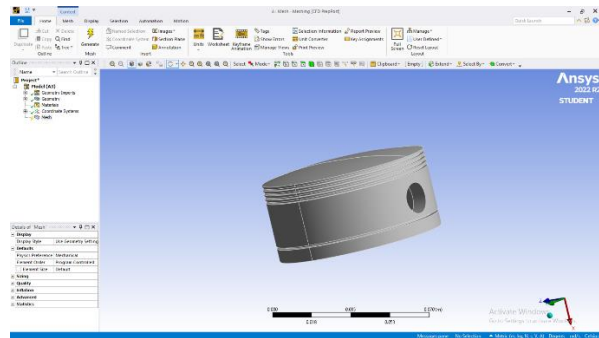
Meshing Method : Tetrahedron

Element Size : 2mm

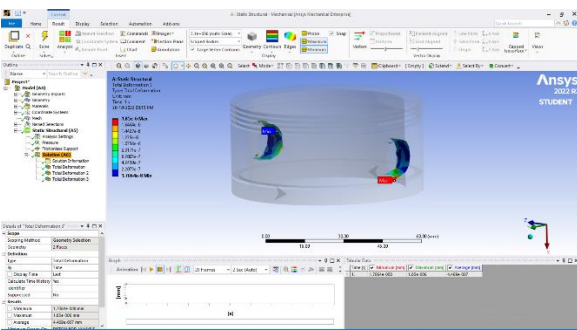
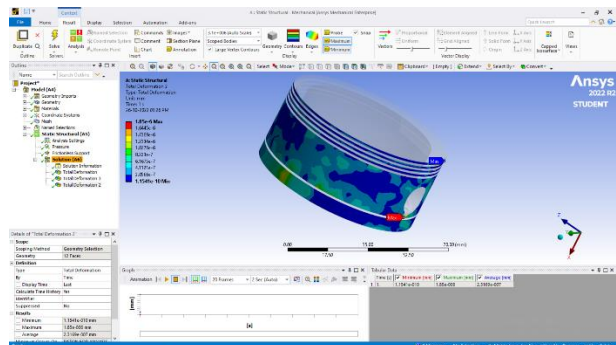
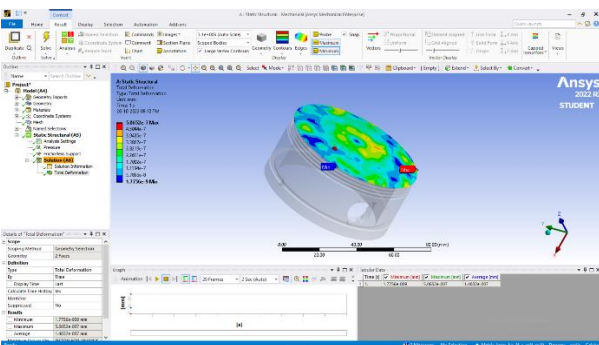
Max Layer = 10

Growth Rate : 1.2

2.STATIC STRUCTURAL ANALYSIS



Total Deformation



Directional Deformation

