Use the CATIA 3D Modeling apps to create geometry and assemble your parts. (de-feature existing geometry if needed)

Open the Material Definition app to create new materials (or to access materials in the database). Keep the app open as it provides access to materials “in-session”.

The Mechanical Scenario Creation app contains all the tools needed to create the finite element model. Auxiliary apps (e.g. Model, Mesh) can be accessed directly from the action bar.

Create a FEM representation. FEM reps act as repositories for nodes, elements and other properties. This allows multiple meshes per model.

Return to the Scenario app after meshing

Note: Use the hide/show option to give visibility to Nodes and Elements

- Use the Simulation Manager to verify the model definitions
- The Simulate button runs the simulation for the current model and scenario (equivalent to submit job in Abaqus/CAE)
3DEXPERIENCE Apps for Abaqus/CAE Users

Model Database

Model-1

Parts (3)

plate-1

Features (2)

Sets
Surfaces
Skins
Stringers
Section Assignments (1)
Orientations
Composite Layups
Engineering Features
Mesh
plate-2
rivet

Materials (2)
Calibrations
Sections (2)
Profiles

Assembly

Instances (3)
Position Constraints (3)
Features (1)
Sets (4)
Surfaces
Connector Assignments
Engineering Features

Steps (2)
Field Output Requests (1)
History Output Requests (1)
Time Points
ALE Adaptive Mesh Constraints
Interactions (1)
Interaction Properties (1)
Contact Controls
Contact Initializations
Contact Stabilizations
Constraints
Connector Sections:
Fields
Amplitudes
Loads
BCs (4)

Solid geometry
Shell and Wire geometry
Defeaturing