1. What is it

   It is cubic mortar comprising of cement, graded sand, and water. Dimension of the material would be 2 by 2 by2 or 0.5 by 0.5 by 0.5. Exact dimension will be decided soon.

2. What parts are included

   Since it is simple cubic, everything will be included.

3. How did you create your geometry?

   In Python, 3D array is designed. Three different number will be used to express cement, graded sand, and water. For example, cement is 1, graded sand is 50, and water is 100. Then it is possible to express cubic mortar with three materials.

4. Figure of cubic mortar
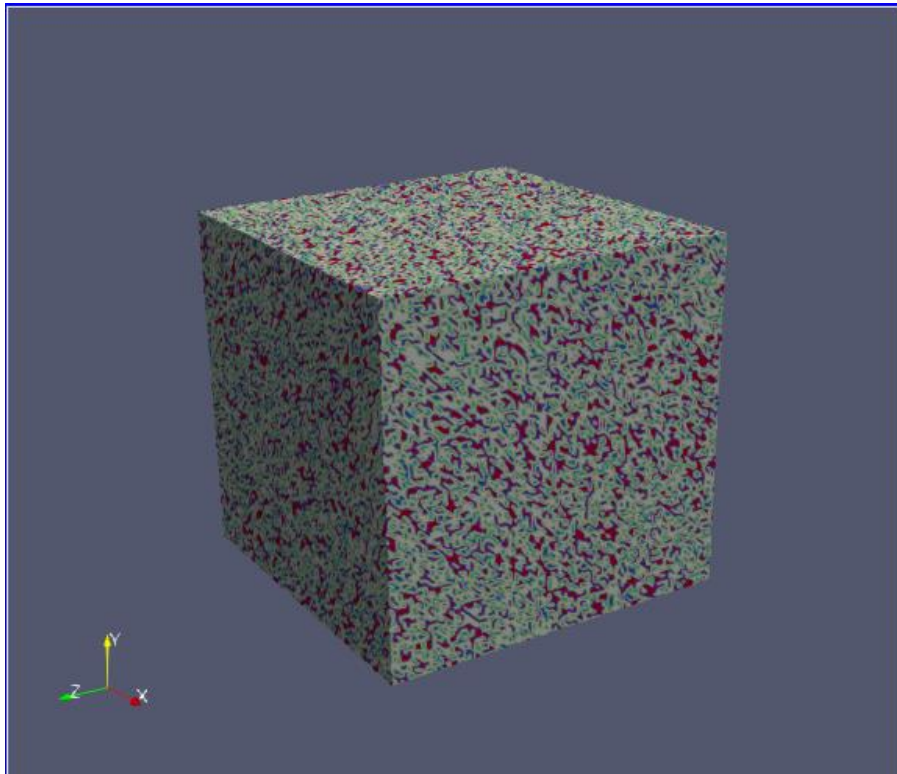
   Above figure is generated by Python, and expressed by Paraview. I assume three materials such as cement, graded sand, and water are homogeneously distributed in cubic mortar. As I mentioned in previous section, I assign different numerical value to each material.

5. Task

   The cubic mortar is 3 phases material. To analyze it, FEM algorithm for analyzing composite material is required. At Pa1, I mentioned one of my goal is upgrading my FEM 3D algorithm for composite material. Thus, I will make FEM algorithm working for composite material through Python.