| Last Name |  |
| --- | --- |
| First Name |  |

**This assignment aims to help you consolidate the knowledge gained in the CSD2 Module 3. The assignment is structured in two parts:**

1. **The Write-Up section, to be submitted through this document**
2. **The Coding section, to be submitted as a Jupyter Notebook file**

**The two sections should be submitted as a zipped archive, named as follows:**

**File naming convention**

assignment-number\_item-number\_lastname-firstname.extension

assignment-2\_jane\_smith.zip

* assignment-2\_smith-jane.pdf
* assignment-2\_smith-jane.ipynb
* ...

The step-by-step instructions for the assignment can be found here:

<https://github.com/BlockResearchGroup/CSD2_2022/blob/main/3_Materialization/Tutorial7/assignment2.ipynb>

**Step B – Compute Tessellation Pattern**

1. Draw two flowcharts (one for step B1 and one for step B2) encapsulating the most important steps required to complete this procedure. Use Flowchart-specific symbols and notations to complete the task.

| Paste / Insert Image of the flowchart\ |
| --- |

1. Through a series of diagrams or screenshots, visually describe the main steps of the script for **Step B1**, using the flowchart in A as a guide.

| Step 1 | Step 2 |
| --- | --- |
| Short caption/description for step 1 | Short caption/description for step 2 |
| Step 3 | Step 4 |
| Short caption/description for step 3 | Short caption/description for step 4 |
| Step 5 | … |
| Short caption/description for step 5 |  |

**Step C – Generate Blocks**

Attach some screenshots of the 3D blocks.

| Paste / Insert Image of the Blocks |
| --- |

**Questions:**

1. In your function generate\_block(mesh, block\_face, thickness), explain how your code takes the parameter thickness to compute the intrados and extrados.
2. Briefly explain the pros and cons of thin blocks (small offset between intrados and extrados) and thick blocks (large offset between intrados and extrados).