**MINI DRC CHECKER TOOL**

**OBJECTIVE**

The objective of this project is to create a mini–Design Rule Checking (DRC) tool to provide students with a foundational understanding of DRC concepts. The tool compares the dimensions of metal and via layers with foundry rules to check for violations and suggests necessary corrections.

**TOOLS NEEDED**

* Python programming language
* Libraries: matplotlib, math

**INPUTS**

* **Format**: Inputs are provided in x, y coordinates.
* **Layers**: 4 coordinates will be asked for each metal and via layer.
* **Plotting Constraint**: Ensure that the number of inputs does not exceed 2, as larger values may cause issues with plotting the diagram in Python.

**OUTPUT**

* **Diagram**: Once the code is executed, a diagram representing the metal and via connections is generated.
* **Violation Check**: The tool checks for any design rule violations.
* **Report**: A report is provided detailing any violations and how to correct them.

**INFERENCE**

This project offers a basic understanding of what DRC is and emphasizes its importance in the field of physical implementation. It serves as an educational tool to familiarize students with the DRC process without the complexities of industry-standard tools.