***OpenSTA***

OpenSTA is a static analysis tool, used to verify the timing of the design. Incremental updating of delays, arrivals, and required times are done using queries.

This analysis provides timing checks -from, -through, -to, multiple paths to endpoint, delay calculation and also checks timing setup

Following image shows the steps involved to open Lab1,

Graphical user interface, text, application, email

Description automatically generated

Simple.v is our design file. The file ‘sky130\_fd\_sc\_hd\_tt\_025C\_1v80.lib’ include library cell information and inside this file, we have cell named ‘sky130\_fd\_sc\_hd\_\_nand2\_1’ which is used in our design (simple.v).

Graphical user interface, text, application

Description automatically generated

Graphical user interface, text, application, email

Description automatically generated

Run file,

Graphical user interface, text

Description automatically generated

***Constraints creation:***

Sdc file,

A screenshot of a computer

Description automatically generated with medium confidence

Execution of run file (run.tcl),

Text

Description automatically generated

Output:

Slack should always be positive (meeting the time), If slack is negative, then we need to fix the issue.

Text

Description automatically generated

Text, table

Description automatically generated