Lab 4: Design and Simulation of 1-bit adder

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Intro:

In this lab you will be designing the 1-bit adder circuit, which will be then used to form the 4-

bit adder in the next lab. In the following sections, you will be given instructions on how to

perform post-layout simulations which you will need to do on each of the standard cells that

have been designed and then use these standard cells to build the layout of the 1-bit adder. After

this, you will verify its overall performance by performing post-layout simulations on the entire

circuit.

Results:

Inverter:

![Graphical user interface

Description automatically generated]()

Nand:

Graphical user interface

Description automatically generatedA computer screen capture

Description automatically generated with medium confidence

XOR2:

A screenshot of a computer

Description automatically generated

![Graphical user interface

Description automatically generated]()![A screenshot of a computer

Description automatically generated with medium confidence]()One bit Adder:

![A screenshot of a computer

Description automatically generated with medium confidence]()

A screenshot of a computer

Description automatically generated

A picture containing text, computer, monitor, electronics

Description automatically generatedGraphical user interface, application

Description automatically generatedGraphical user interface

Description automatically generatedGraphical user interface

Description automatically generatedA screenshot of a computer

Description automatically generated with medium confidence

Graphical user interface, text

Description automatically generated