## COP290: Assignment 2 - AC Circuit Solver Software Requirement Specification

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## Functionalities involved in the software:

- The circuit is drawn in **SVG** format by drawing individual nets as vertical lines and then connecting the components appropriately. Overlapping is avoided and a properly designed algorithm is implemented.
- The components are clickable through the text showing the name of the component.
- Most of the syntax and semantic errors are handled and shown on the terminal. This was possible due to the usage of lex and yacc to parse the netlist.
- The solving part is handled using the **Eigen** library in C++ along with **complex** header file. **Modified Nodal Analysis** algorithm is used for solving.
- After solving, the output is displayed in a text file and is in the increasing order of frequencies of the sources. The magnitude and phase values are rounded upto 3 decimal places.