NAME : Akshat Gupta

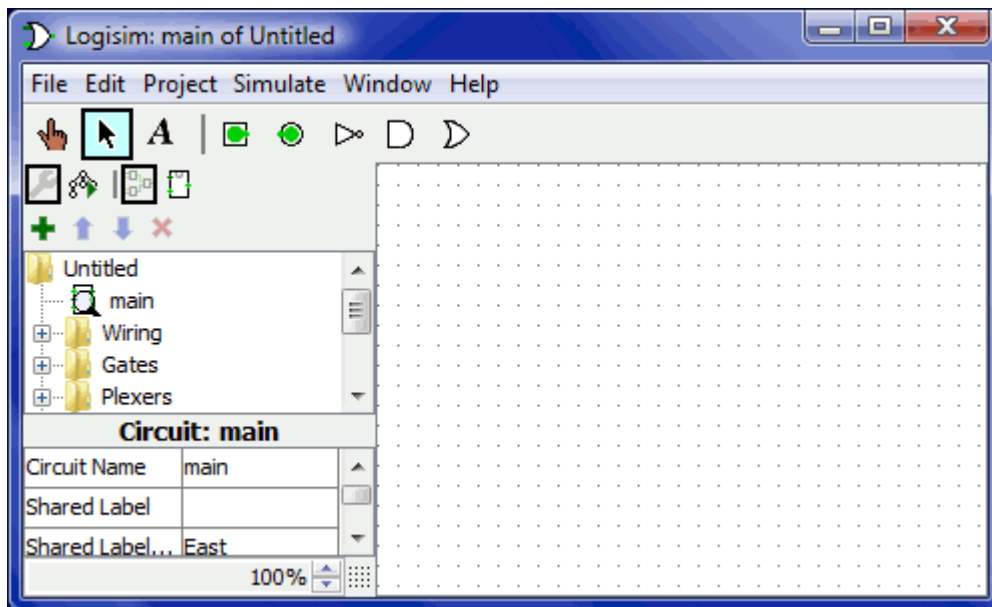ROLL NO : 2200291520026

CSE(AI) SEC – A

INTRODUCTION TO LOGISIM EVOLUTION

Logisim is a popular educational software tool used for designing and simulating digital logic circuits. It is often used in computer science and electrical engineering courses to help students learn about digital circuits, Boolean algebra, and basic computer architecture principles.

Using Logisim evolution simulator we verified the truth tables of various logic gates .like AND , OR, NOT,NOR,NAND etc.

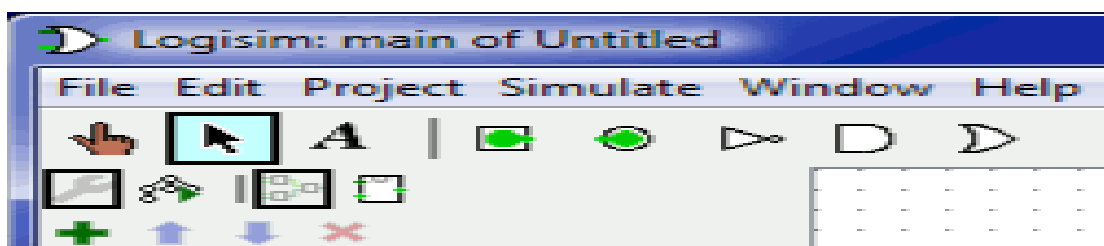When we start Logisim we observe such tools on its left top

1.MENU BAR

a.FILE ::

In this we can perform various option like creating a new file, saving a file and opening a file , creating a blank file

2. TOOL BAR

- **Poke tool:** (up and down arrows) Alter the current state of the circuit. For example, you can click a switch to flip its current state.
- **Select tool:** (arrow cursor) Select existing components in the circuit. You can drag a component to move it, or you can just select some components and then use the clipboard operations in the Edit menu.
- **Text tool:** (letter A) Add text labels to the circuit. You can click anywhere and add text. By right-clicking on a label, you can alter the font and alignment. (Right-clicking the text tool button gives you the opportunity to alter the default alignment.)

  You can associate text with a switch or a LED by clicking the text tool on the switch or LED. Right-click on the component to alter the placement of the label.

- **NOT gate tool:** (triangle with a circle at its end) Add a NOT gate. The input to the NOT gate is at its left-hand center. The output is at its right-hand center. If you want a smaller NOT gate, select the `Small Gates' option from the Options menu.
- **AND gate tool:** (D shape) Add an AND gate. An AND gate can have up to five inputs connected to its left-hand side. The output is at its right-hand center. If you want a smaller three-input AND gate, select the `Small Gates' option from the Options menu.
- **OR gate tool:** (spaceship shape) Add an OR gate. An OR gate can have up to five inputs connected to its left-hand side. The output is at its right-hand center. If you want a smaller three-input AND gate, select the `Small Gates' option from the Options menu.

- **Input switch tool:** (vertical box with a green one inside) Add an input switch. The input switch has no inputs and a single output, centered on its right-hand side. You can change the current output using the poke tool.
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THEN WE HAVE VERIFIED VARIOUS LOGIC GATES BY DRAGGING and DROPPING THEM