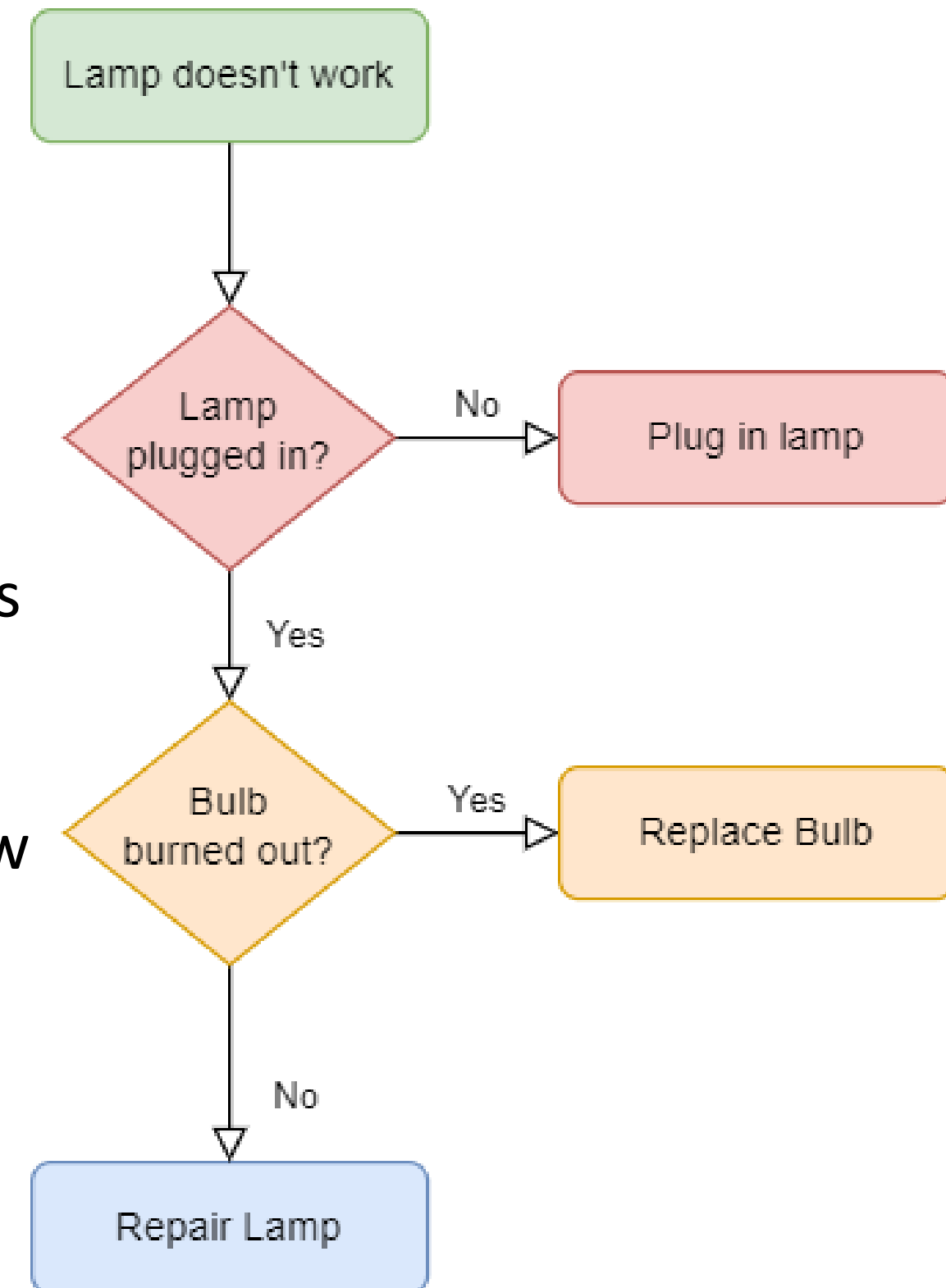


Session Number -3 and 4

Algorithm and Flowchart

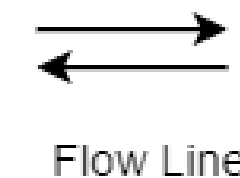
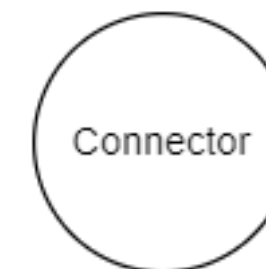
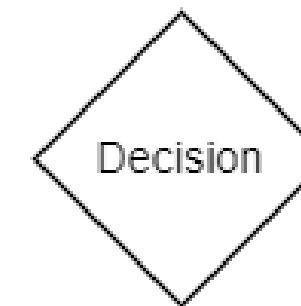
What is a Flowchart?

- A flowchart is a diagrammatic representation of the step-by-step plan to be followed for solving a task/problem statement.
- This diagrammatic representation is made up of shapes like boxes, diamonds, parallelograms, circles, ellipses connected by arrows. Each shape acts as a step in the solution, and the arrows represent the direction of flow among the steps.



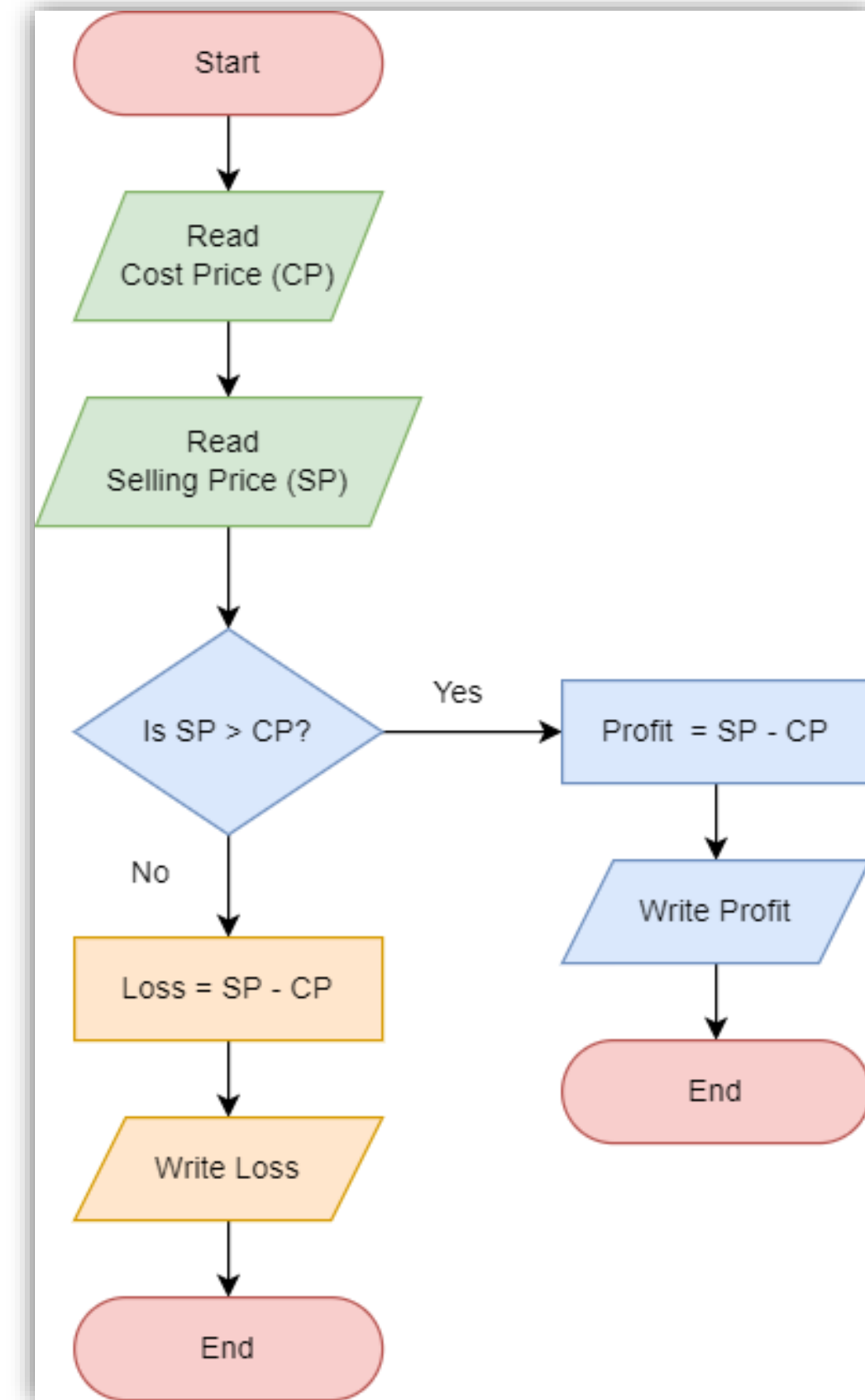
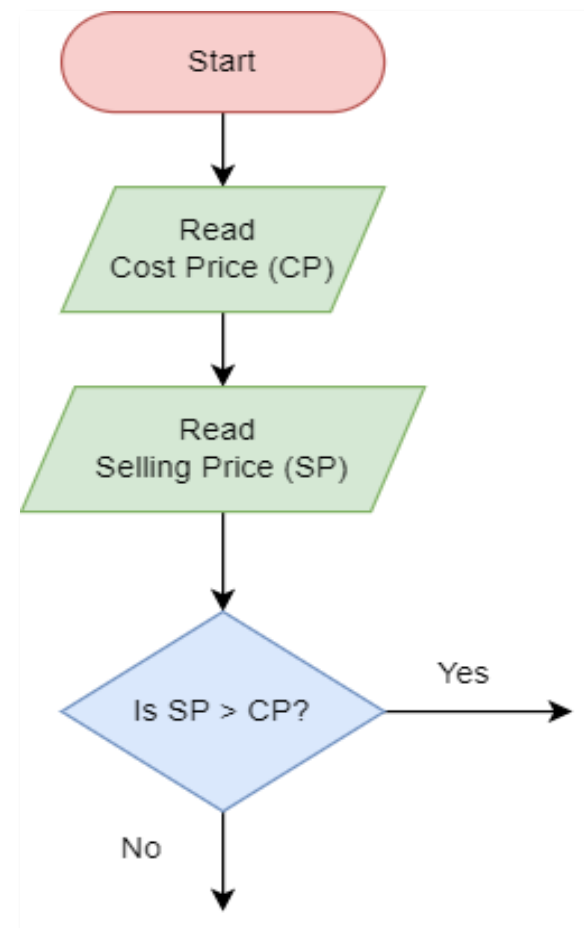
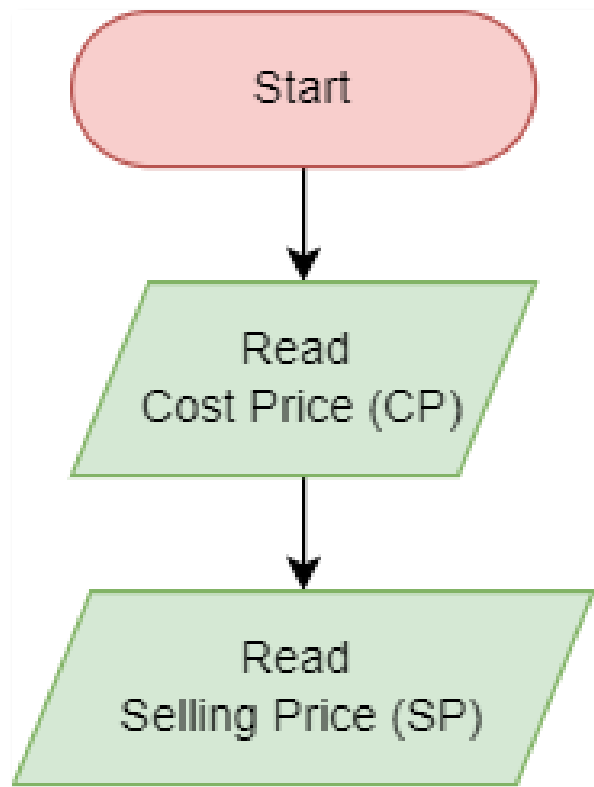
Symbols used in a flowchart

- **Terminal:** Indicates start / stop / halt
- **Input / Output:** Indicates instructions that either take inputs or display output.
- **Processing:** Indicates instructions that represent computation.
- **Decision:** Indicates decision-based operations such as Yes/No, or true/false.
- **Connectors:** Complex flowcharts which span over more than a page are connected via a connector.
- **Flow lines:** Indicates the direction of flow of sequence in a flowchart



Activity: Profit and Loss

- **Taking inputs** – cost price and selling price from the user at the start.
- Create branches with identification of the profit and loss with the decision.
- Calculate the profit and loss values.
- Your flowchart is complete.



What is Algorithm

- An **algorithm** is defined as the step-by-step plan to solve the problem for a given problem statement.

Before going to the algorithm, let's understand the key terms:

- **Cost Price (C.P.):** The price at which an item is bought.
- **Selling Price (S.P.):** The price at which an item is sold.

Profit or Loss:

- If **S.P. > C.P.**, then there is a **Profit**.
 - Profit = S.P. - C.P.
- If **C.P. > S.P.**, then there is a **Loss**.
 - Loss = C.P. - S.P.

Algorithm: To Find Profit or Loss

Here's a simple step-by-step algorithm:

► Step-by-Step Algorithm:

1.Start

2.Input the Cost Price (C.P.)

3.Input the Selling Price (S.P.)

4.If $S.P. > C.P.$, then

→ Profit = $S.P. - C.P.$

→ Print "Profit" and the amount

5.Else if $C.P. > S.P.$, then

→ Loss = $C.P. - S.P.$

→ Print "Loss" and the amount

6.Else

→ Print "No Profit No Loss"

7.End

Thank you for your attention!

