

Logic Building Session

Day 1: Mar 2022

Session 1

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EXAMPLE OF PSEUDOCODE

1. Start
2. Read `quantity`
3. Read `price_per_kg`
4. `price` \leftarrow `quantity` * `price_per_kg`
5. Print `price`
6. End

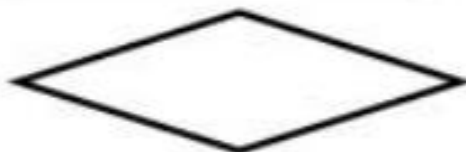
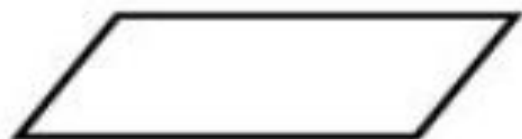
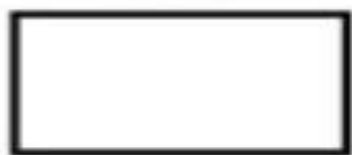
Pictorial Diagrams (Flow Charts)

- graphical representation of
- the sequence of operations in a program



FLOWCHART NOTATIONS

Symbol



Semantic

Start/End

Process

Input/Output

Test

Connector

Flow of activities

Pictorial Diagrams (Flow Charts)

- graphical representation of
- the sequence of operations in a program

Step 1: Start the program

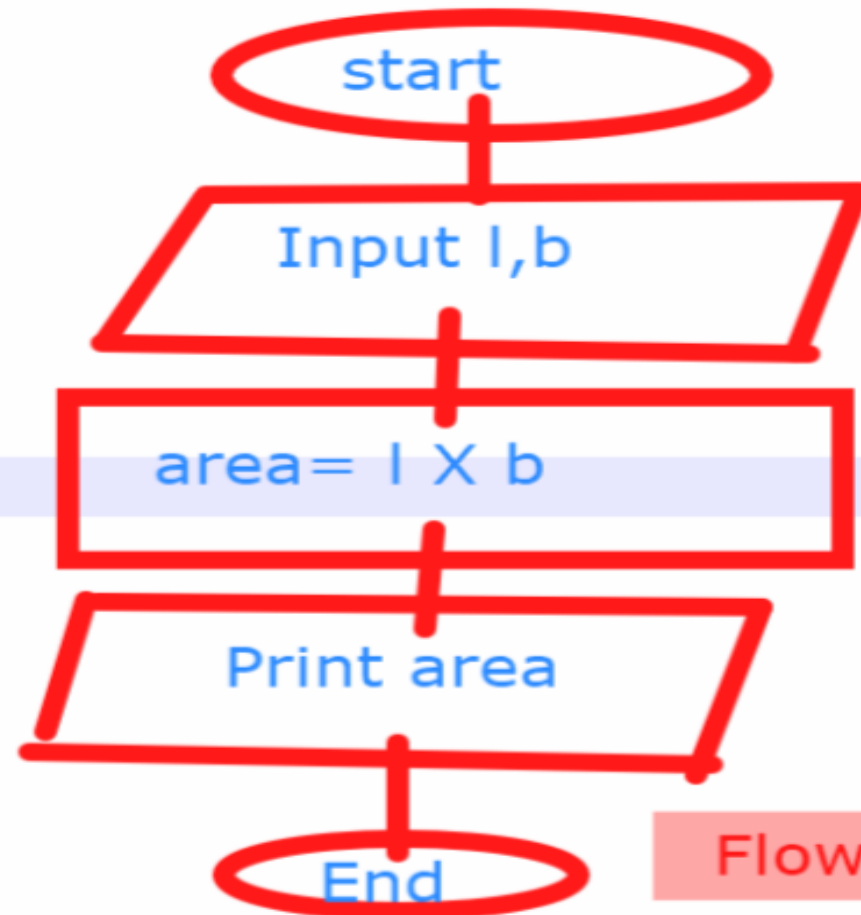
Step 2: Input l, b
l=100, b=110

Step 3: Var area
area:= l * b

Step 4: Print area

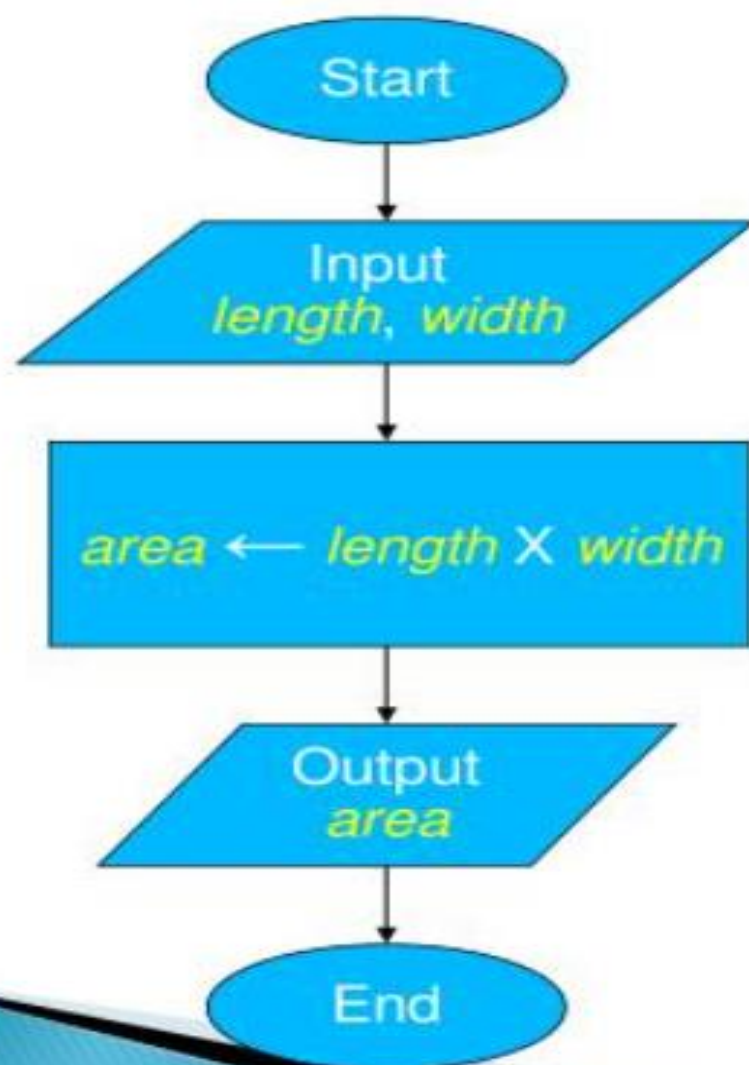
step 5: End

Algorithm



FlowChart

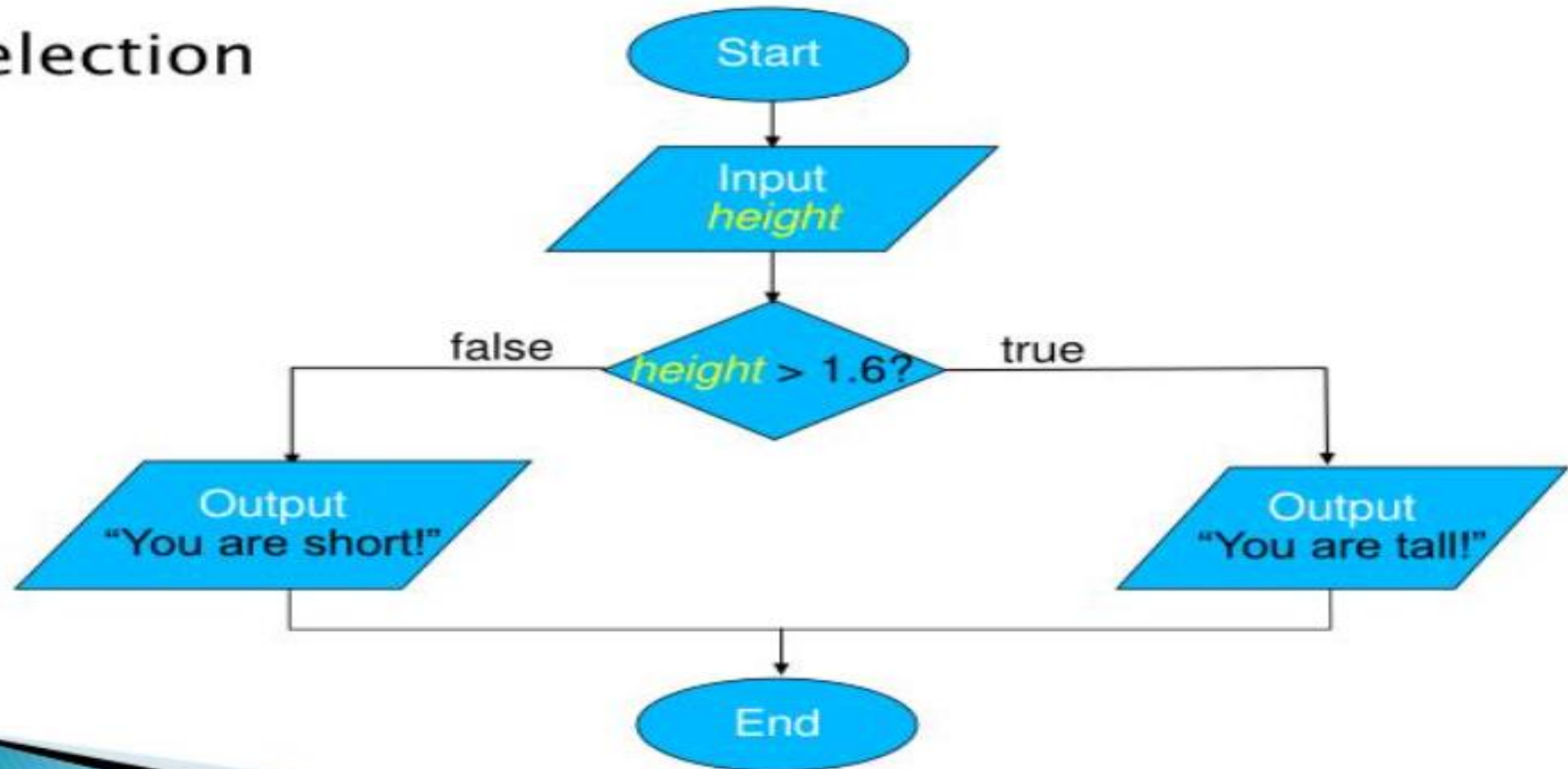
FLOWCHART: EXAMPLE 2



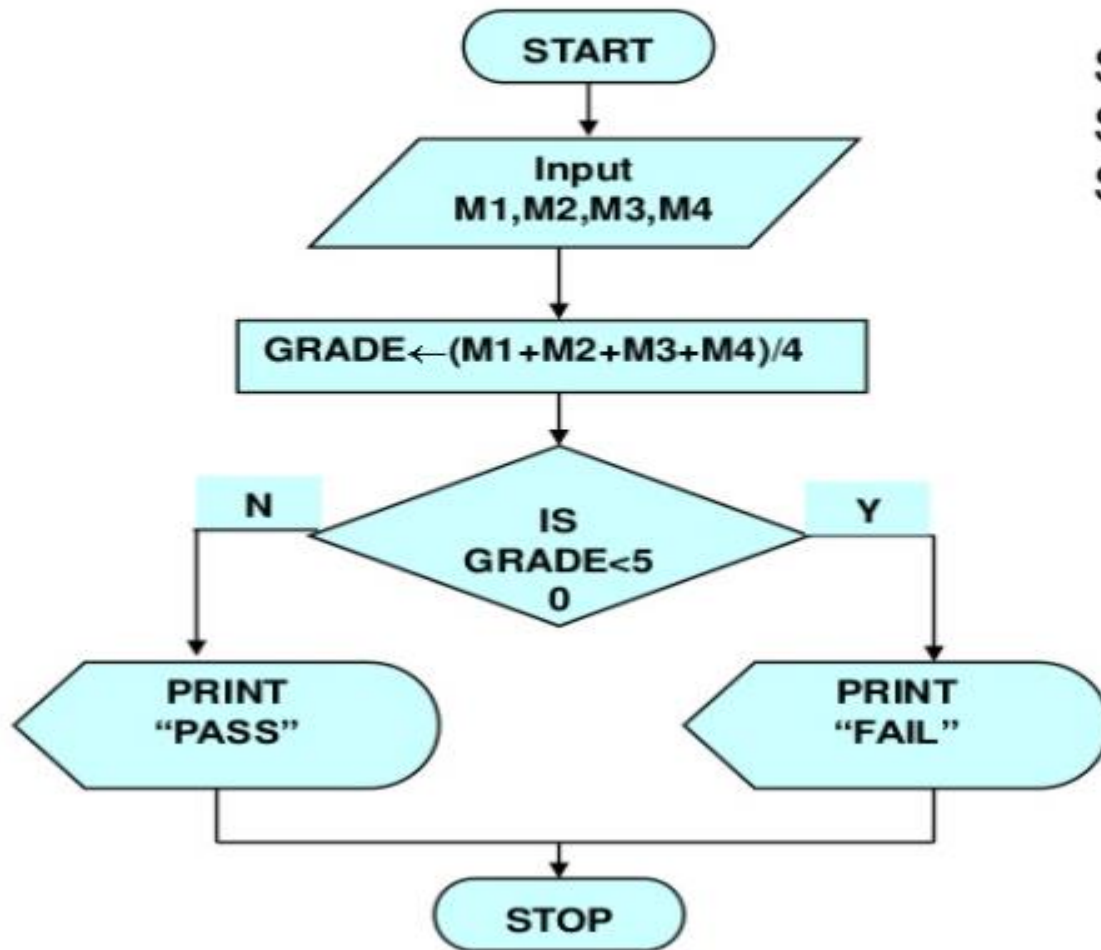
- **length**, **width** and **area** are referred to as variables.
- A variable is like a box in which a value can be stored

FLOWCHART: EXAMPLE 3

► Selection



EXAMPLE 1



Step 1: Input M1, M2, M3, M4

Step 2: $\text{GRADE} \leftarrow (\text{M1} + \text{M2} + \text{M3} + \text{M4}) / 4$

Step 3: if (GRADE < 50) then
Print "FAIL"

else

Print "PASS"

endif




```
class First1
```

```
{
```

```
    public static void main(String args [])
```

```
    {
```

```
        System.out.println("Hello Java....");
```

```
        System.out.print("Hello Java....");
```

```
        System.out.print("Hello Java....");
```

```
        System.out.println("Hello Java....");
```

```
        System.out.println("Hello Java....");
```

```
    }
```

```
}
```

Command Prompt

Hello Java....

C:\CDAC22>javac First1.java

C:\CDAC22>java First1

Hello Java...

Hello Java... Hello Java... Hello Java...

Hello Java....

C:\CDAC22>

```
class First1
{
    public static void main(String args [])
    {
        System.out.println("Hello Java....");
        System.out.print("Hello Java....");
        System.out.print("Hello Java....");
        System.out.println("Hello Java....");
        System.out.println("Hello Java....");
    }
}
```

Class & Object

class → Student

Data Member →

name
id
address
age
marks

Member Function →

studentrecord()
result()
ranking()

```
class First1
{
    public static void main(String args [])
    {
        System.out.println("Hello Java....");
        System.out.print("Hello Java....");
        System.out.print("Hello Java....");
        System.out.println("Hello Java....");
        System.out.println("Hello Java....");
    }
}
```

Class & Object

class

Data Member

Member Function

Circle

radius
pi=22/7

getArea()
getRadius()

```
class First1
{
    public static void main(String args [])
    {
        System.out.println("Hello Java....");
        System.out.print("Hello Java....");
        System.out.print("Hello Java....");
        System.out.println("Hello Java....");
        System.out.println("Hello Java....");
    }
}
```

Class & Object

class

Data Member

Member Function

car

type
fueltype
engine
color
manuf

speed()
acceraltion()
aver()

object=reference variable

```
}  
}  
  
System.out.println()
```

-inbuilt class in java
-java.lang package

-PrintStream class
-print given text to
console window

-Reference variable
-java.io.PrintStream

