1. **Create a new Project: Abstract\_Blk1**

**Note: Blk1 represents your BLOCK number. Blk2 for Blk2 and so forth and so on.**

1. **Create a new Abstract Class called Shape.**

* **Declare the following attributes as private:**
  + 1. Radius as double
    2. Length as double
    3. Width as double
    4. Base as double
    5. Height as double
    6. Side as double
* **Declare a blank constructor.**
* **Declare a constructor with the 6 attributes shown above.**
* **Declare the necessary Setter and Getter.**
* **Declare an abstract method called Area.**
* **Declare an abstract method called Perimeter.**

1. **Create a new Class, name it Parisukat.**

* **Inherit the characteristics of the Shape.**
* **Declare an attribute Remark as String, equivalent to "This is a Square...".**
* **Declare an attribute Area as double.**
* **Declare an attribute Perimeter as double.**
* **Declare a blank constructor.**
* **Declare a constructor just like the parent class,**

**and declare the super keyword afterwards.**

* **Create the implementation for the Area.**

1. Note: Area for Square is equivalent to the value of side x side
2. Display the result as: The Area of the Square is: \_\_\_\_\_\_\_\_\_

* **Create the implementation for the Perimeter.**

1. Note: Perimeter is equivalent to 4 x the value of side
2. Display the result as: The Perimeter of the Square is: \_\_\_\_\_\_\_\_\_
3. **Consider the Input/Output layout in the main program as shown below.**
   * 1. Display the heading.
     2. Call the attribute Remark from the Parisukat class.
     3. Display & Accept for ----> Enter a Value for the side: \_\_\_\_\_\_\_\_\_
     4. Display the Value of Side ---> The value of the side is: \_\_\_\_\_\_\_\_\_
     5. Call Area() method.
     6. Call Perimeter method.

**I/O Layout:**

**<<< The Shape Hierarchy >>>**

**This is a Square…**

**Enter a Value for the side: \_\_\_\_\_\_\_\_\_\_\_\_**

**-**

**The value of the side of the is: \_\_\_\_\_\_\_\_\_\_\_\_**

**The Area of the Square is: \_\_\_\_\_\_\_\_\_**

**The Perimeter of the Square is: \_\_\_\_\_\_\_\_\_**

**Do the above stated instructions for 30 minutes. Afterwhich, wait for further instructions to continue doing the next set of instructions.**

1. **Create a new Class, name it Parihaba.**

* **Inherit the characteristics of the Shape.**
* **Declare an attribute Remark as String, equivalent to "This is a Rectangle...".**
* **Declare an attribute Area as double.**
* **Declare an attribute Perimeter as double.**
* **Create the implementation for the Area.**

1. Note: Area for is equivalent to the value of Length x Width
2. Display the result as: The Area of the Rectangle is: \_\_\_\_\_\_\_\_\_

* **Create the implementation for the Perimeter.**

1. Note: Perimeter is equivalent to (2x the value of the Length + 2x the value of the Width).
2. Display the result as: The Perimeter of the Rectangle is: \_\_\_\_\_\_\_\_\_
3. **Consider the Input/Output layout in the main program as shown below.**
   * 1. Call the attribute Remark from the Parihaba class.
     2. Display & Accept for ----> Enter a Value for the Length: \_\_\_\_\_\_\_\_\_
     3. Display & Accept for ----> Enter a Value for the Width : \_\_\_\_\_\_\_\_\_
     4. Display the Value of Length ---> The value of the Length is: \_\_\_\_\_\_\_\_\_
     5. Display the Value of Width ---> The value of the Width is: \_\_\_\_\_\_\_\_\_
     6. Call Area() method.
     7. Call Perimeter method.
4. **The NEXT Input/Output Layout in the main program will now look like this:**

**<<< The Shape Hierarchy >>>**

**This is a Square…**

**Enter a Value for the side: \_\_\_\_\_\_\_\_\_\_\_\_**

**-**

**The value of the side of the Square is: \_\_\_\_\_\_\_\_\_\_\_\_**

**The Area of the Square is: \_\_\_\_\_\_\_\_\_**

**The Perimeter of the Square is: \_\_\_\_\_\_\_\_\_**

**-**

**This is a Rectangle…**

**Enter a Value for the Length: \_\_\_\_\_\_\_\_\_\_\_\_**

**Enter a Value for the Width: \_\_\_\_\_\_\_\_\_\_\_\_**

**-**

**The value of the Length is: \_\_\_\_\_\_\_\_\_\_\_\_**

**The value of the Width is: \_\_\_\_\_\_\_\_\_\_\_\_**

**The Area of the Rectangle is: \_\_\_\_\_\_\_\_\_\_\_\_**

**The Perimeter of the Rectangle is: \_\_\_\_\_\_\_\_\_\_\_\_**

**Do the above stated instructions for 30 minutes. Afterwhich, wait for further instructions to continue doing the next set of instructions.**

1. **Create a new Class, name it Bilog.**

* **Inherit the characteristics of the Shape.**
* **Declare an attribute Remark as String, equivalent to "This is a Circle...".**
* **Declare an attribute Area as double.**
* **Declare an attribute Perimeter as double.**
* **Create the implementation for the Area.**

1. Note: Area for is equivalent to the value of Pi x Radius x Radius
2. Display the result as: The Area of the Circle is: \_\_\_\_\_\_\_\_\_

* **Create the implementation for the Perimeter.**

1. Note: Perimeter is equivalent to 2 x Pi x Radius.
2. Display the result as: The Perimeter of the Circle is: \_\_\_\_\_\_\_\_\_
3. **Consider the Input/Output layout in the main program as shown below.**
   * 1. Call the attribute Remark from the Bilog class.
     2. Display & Accept for ----> Enter a Value for the Radius: \_\_\_\_\_\_\_\_\_
     3. Display the value of Radius ---> The value of the Radius is: \_\_\_\_\_\_\_\_\_
     4. Call Area() method.
     5. Call Perimeter method.
4. **The NEXT Input/Output Layout in the main program will now look like this:**

**<<< The Shape Hierarchy >>>**

**-**

**This is a Square…**

**Enter a Value for the side: \_\_\_\_\_\_\_\_\_\_\_\_**

**-**

**The value of the side of the Square is: \_\_\_\_\_\_\_\_\_\_\_\_**

**The Area of the Square is: \_\_\_\_\_\_\_\_\_**

**The Perimeter of the Square is: \_\_\_\_\_\_\_\_\_**

**-**

**This is a Rectangle…**

**Enter a Value for the Length: \_\_\_\_\_\_\_\_\_\_\_\_**

**Enter a Value for the Width: \_\_\_\_\_\_\_\_\_\_\_\_**

**-**

**The value of the Length of the Rectangle is: \_\_\_\_\_\_\_\_\_\_\_\_**

**The value of the Width of the Rectangle is: \_\_\_\_\_\_\_\_\_\_\_\_**

**The Area of the Rectangle is: \_\_\_\_\_\_\_\_\_\_\_\_**

**The Perimeter of the Rectangle is: \_\_\_\_\_\_\_\_\_\_\_\_**

**-**

**This is a Circle…**

**Enter a Value for the Radius: \_\_\_\_\_\_\_\_\_\_\_\_**

**-**

**The value of the Radius of the Circle is: \_\_\_\_\_\_\_\_\_\_\_\_**

**The Area of the Circle is: \_\_\_\_\_\_\_\_\_\_\_\_**

**The Perimeter of the Circle is: \_\_\_\_\_\_\_\_\_\_\_\_**