Scala Programing

Lab Assignment -6

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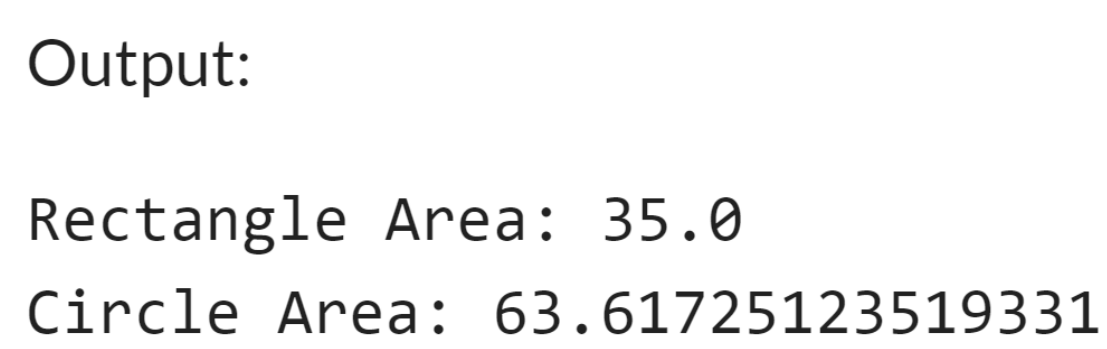
Write a Scala program that creates an abstract class Shape with an abstract method area. Implement subclasses Rectangle and Circle that override the area method.

Code:

```
abstract class Shape {
 def area: Double
}
class Rectangle(width: Double, height: Double) extends Shape {
 override def area: Double = width * height
}
class Circle(radius: Double) extends Shape {
 override def area: Double = math.Pi * radius * radius
}
object ShapeApp {
 def main(args: Array[String]): Unit = {
   val rectangle = new Rectangle(7, 5)
   println(s"Rectangle Area: ${rectangle.area}")
   val circle = new Circle(4.5)
   println(s"Circle Area: ${circle.area}")
 }
}
```

Output:



When you give an alphabet in single quotes,it takes the ASCII value of it

Code:

```
abstract class Shape {
 def area: Double
}
class Rectangle(width: Double, height: Double) extends Shape {
 override def area: Double = width * height
}
class Circle(radius: Double) extends Shape {
 override def area: Double = math.Pi * radius * radius
}
object ShapeApp {
 def main(args: Array[String]): Unit = {
   val rectangle = new Rectangle('A', 5)
   println(s"Rectangle Area: ${rectangle.area}")
   val circle = new Circle(4.5)
   println(s"Circle Area: ${circle.area}")
 }
}
```

Output: