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COURSE	Java Programming

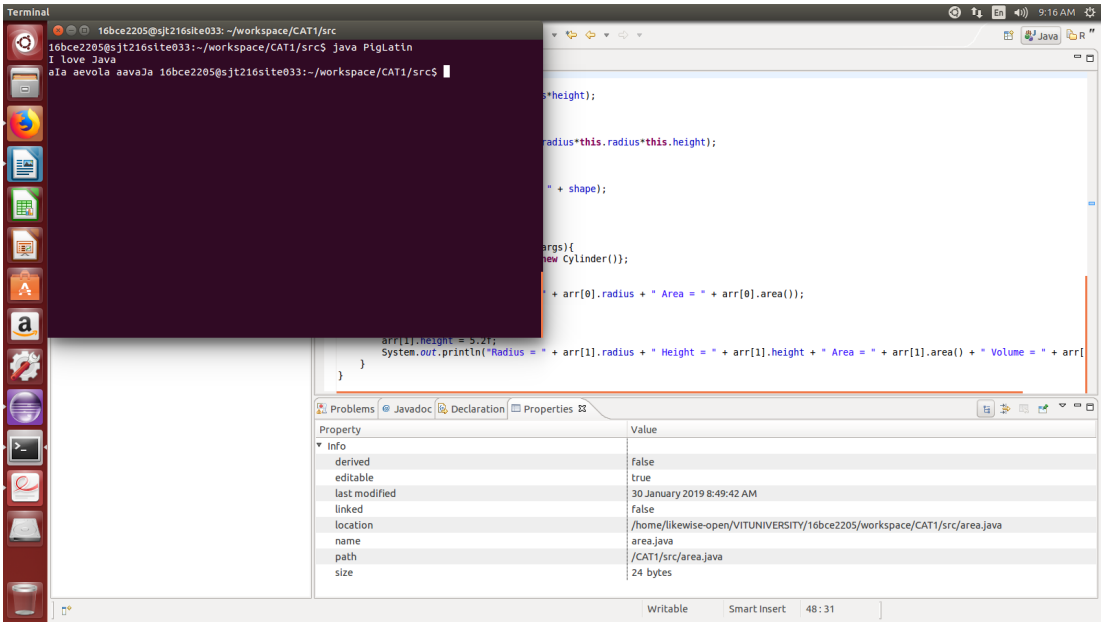
CAT 1

Write a java program to convert the given Pig Latin string into English string, Pig Latin string is nothing but reversing each word from the given text and appending the character 'a' to the start and end of each reversed word. say the Pig Latin String of "I love Java" is "aIa aevola aavaJa". Obtain Pig Latin string from user and convert into English string.

Code

```
import java.util.*;

public class PigLatin {
	public static void main(String[] args){
		int i;

		Scanner sc = new Scanner(System.in);
		String s1 = sc.nextLine();
		sc.close();

		String[] words = s1.split(" ");
		String[] latin = new String[words.length];
		StringBuffer temp = new StringBuffer();

		for(i = 0; i < words.length; i++){
			temp.delete(0, temp.length());
			latin[i] = "";
			latin[i] += 'a';
			temp.append(words[i]);
			temp.reverse();
			latin[i] += temp;
			latin[i] += 'a';
			System.out.print(latin[i] + " ");
		}
	}
}
```

Output


Terminal
16bce2205@sjt216site033: ~/workspace/CAT1/src
16bce2205@sjt216site033:~/workspace/CAT1/src$ java PigLatin
I love Java
aIa aevola aavaJa 16bce2205@sjt216site033:~/workspace/CAT1/src$
Problems
Javadoc
Declaration
Properties
Property
Value
Info
derived
false
editable
true
last modified
30 January 2019 8:49:42 AM
linked
false
location
/home/likewise-open/VITUNIVERSITY/16bce2205/workspace/CAT1/src/area.java
name
area.java
path
/CAT1/src/area.java
size
24 bytes
Writable
Smart Insert
48 : 31

Create an interface Shape with abstract methods for calculating area and getting the shape name. Create a class called Point which implements the interface with the data members area and radius. Inherit the class Circle from Point, in which override the method for calculating area and displaying the shape name accordingly. Create the class Cylinder from Circle and implement the interface methods. Provide the method for calculating the volume of the cylinder. Create a driver class containing the array of shapes. Calculate the area and volume of the shapes.

Code

```
interface Shape{
	float area();
	float volume();
	void shapeName();
}

class Point implements Shape{
	float area;
	float radius;
	float height;
	String shape;

	public float area(){
		return 0;
	}

	public void shapeName(){
		System.out.println("This is a " + shape);
	}

	public float volume() {
		// TODO Auto-generated method stub
		return 0;
	}
}

class Circle extends Point{
	String shape = "Circle";
	public float area(){
		return (float) (Math.PI*radius*radius);
	}

	public void shapeName(){
		System.out.println("This is a " + shape);
	}
}

class Cylinder extends Circle{
	String shape = "Cylinder";
	public float area(){
		return (float) (Math.PI*radius*height);
	}

	public float volume(){
		return (float) (Math.PI*this.radius*this.radius*this.height);
	}

	public void shapeName(){
```

```
                System.out.println("This is a " + shape);
        }
}

public class area {
        public static void main(String[] args){
                Point arr[] = {new Circle(), new Cylinder()};
                arr[0].shapeName();
                arr[0].radius = 12.2f;
                System.out.println("Radius = " + arr[0].radius + " Area = " + arr[0].area());

                arr[1].shapeName();
                arr[1].radius = 13.2f;
                arr[1].height = 5.2f;
                System.out.println("Radius = " + arr[1].radius + " Height = " + arr[1].height + " Area = " +
arr[1].area() + " Volume = " + arr[1].volume());
        }
}
```

Output