```java
package technologics_coding;

abstract class Animal {
    abstract void makeSound();
}
class Dog extends Animal {
    void makeSound() {
        System.out.println("dog barks");
    }
}
public class abstraction {
    public static void main(String[] args) {
        Animal dog = new Dog();
        dog.makeSound();
    }
}

```

<terminated> abstraction [Java Appli

```
dog barks
```

```java
package technologics_coding;
class customer {
    private int customerId;
    private String password;
    public int getCustomerId() {
        return customerId;
    }
    public void setCustomerId(int customerId) {
        this.customerId = customerId;
    }
    public String getPassword() {
        return password;
    }
    public void setPassword(String password) {
        this.password = password;
    }
     }

public class bean {
    public static void main(String[] args) {
        customer customer = new customer();
        customer.setCustomerId(12345);
        customer.setPassword("1234");
        System.out.println("customer id " + customer.getCustomerId());
        System.out.println("old password " + customer.getPassword());
        customer.setPassword("5678");
        System.out.println("New Password: " + customer.getPassword());
     }
     }

```

<terminated> bean [Java Application] C:

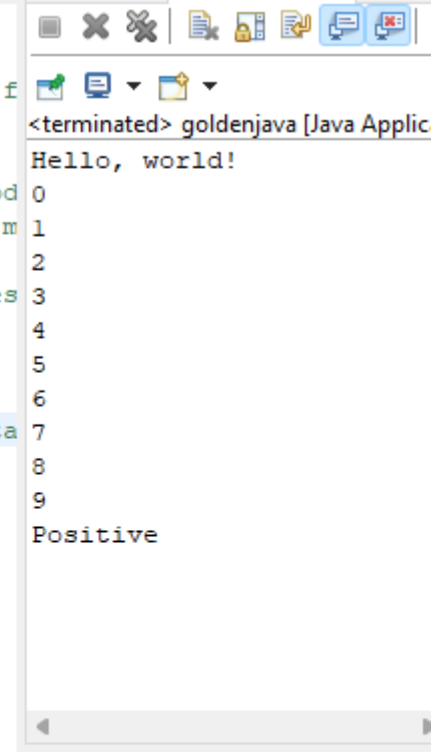
```
customer id 12345
old password 1234
New Password: 5678
```

```java
package technologics_coding;

public class half_string {
    public static void main(String[] args) {
        String a = "saiyedafakahmed";
        int half_a = a.length() / 2;
        String first_half = a.substring(0, half_a);
        System.out.println(first_half);
    }
}
```

<terminated> half_string [Java Application

```
saiyeda
```

```java
package technologics_coding;

public class goldenjava{// if class is public than it can be accessible f
    //you cannot give outer class as static

    public static void main(String[] args) { //return type of main method
        //visibility of main method should be public and static keyword m
        int myNumber = 42;  // Use meaningful variable names
        String message = "Hello, world!";  // Use camelCase for variables

        System.out.println(message);

        for (int i = 0; i < 10; i++) {  // bracket should be used for sta
            System.out.println(i);
        }

        if (myNumber > 0) {
            System.out.println("Positive");
        } else {
            System.out.println("Non-positive");
        }
    }
}

```



```java
package technologics_coding;

class anim {
    void makeSound() {
        System.out.println("anim makes a sound");
    }
}
class dogl extends anim {
    @Override
    void makeSound() {
        System.out.println("dogl barks");
    }
}
class Cat extends anim {
    @Override
    void makeSound() {
        System.out.println("cat meows");
    }
}
public class runtime {
    public static void main(String[] args) {
        anim anim1 = new dogl();
       anim anim2 = new Cat();

        anim1.makeSound();
        anim2.makeSound();
    }
}

```

<terminated> runtime [Java Applicati

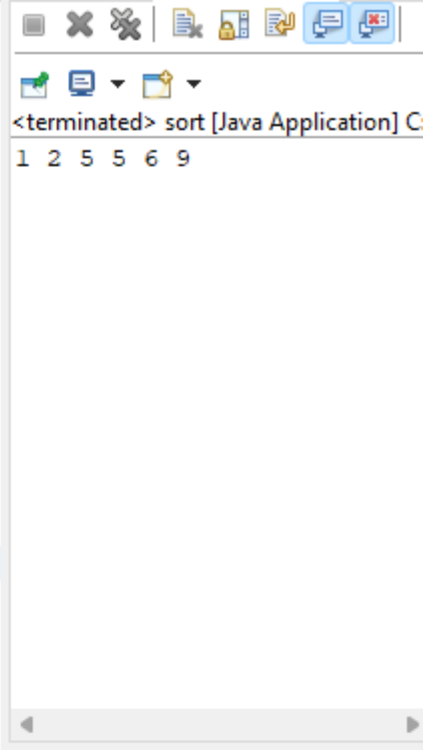
```
dogl barks
cat meows
```

```java
package technologics_coding;
import java.util.PriorityQueue;

public class priority_queue {
    public static void main(String[] args) {
        PriorityQueue<Integer> priorityQueue = new PriorityQueue<>();
        priorityQueue.offer(5);
        priorityQueue.offer(2);
        priorityQueue.offer(9);
        priorityQueue.offer(1);
        priorityQueue.offer(5);
        priorityQueue.offer(6);
        System.out.println("Elements are ");
        while (!priorityQueue.isEmpty()) {
            System.out.println(priorityQueue.poll());
        }
    }
}
```

<terminated> priority_queue [Java App

```
Elements are
1
2
5
5
6
9
```

```java
package technologics_coding;

public class sort {
    public static void main(String[] args) {
        int[] arr = { 5, 2, 9, 1, 5, 6 };

            int n = arr.length;
            for (int i = 0; i < n - 1; i++) {
                for (int j = 0; j < n - i - 1; j++) {
                    if (arr[j] > arr[j + 1]) {
                        int temp = arr[j];
                        arr[j] = arr[j + 1];
                        arr[j + 1] = temp;
                    }
                }
            }


        for (int i=0; i<n; i++) {
            System.out.print(arr[i] + " ");
        }
        System.out.println();

}
}

```



```java
package technologics_coding;

class Parent {
    String message = "hlo saiyed how are you";
    void displayMessage() {
        System.out.println(message);
    }
}

class Child extends Parent {
    void displayMessages() {
        System.out.println( super.message);
    }
}

public class super_statement {
    public static void main(String[] args) {
        Child child = new Child();
        child.displayMessages();
    }
}

```

<terminated> super_statement [Java A

```
hlo saiyed how are you
```

```java
package technologics_coding;
import java.util.TreeSet;
public class treeset {
    public static void main(String[] args) {
        TreeSet<Integer> treeSet = new TreeSet<>();
        treeSet.add(5);
        treeSet.add(2);
        treeSet.add(9);
        treeSet.add(1);
        treeSet.add(5);
        treeSet.add(6);
        System.out.println("Elements retrieved from the TreeSet:");
        for (Integer num : treeSet) {
            System.out.println(num);
        }
    }
}

```