

added in API level 1

(<https://developer.android.com/guide/topics/manifest/uses-sdk-element.html#ApiLevels>)

```
public class JSONObject
```

```
extends Object (https://developer.android.com/reference/java/lang/Object.html)
```

```
java.lang.Object (https://developer.android.com/reference/java/lang/Object.html)
```

```
↳ org.json.JSONObject
```

A modifiable set of name/value mappings. Names are unique, non-null strings. Values may be any mix of JSONObjects (<https://developer.android.com/reference/org/json/JSONObject.html>), JSONArrays (<https://developer.android.com/reference/org/json/JSONArray.html>), Strings, Booleans, Integers, Longs, Doubles or NULL (<https://developer.android.com/reference/org/json/JSONObject.html#NULL>). Values may not be null, NaNs ([https://developer.android.com/reference/java/lang/Double.html#isNaN\(\)](https://developer.android.com/reference/java/lang/Double.html#isNaN())), infinities ([https://developer.android.com/reference/java/lang/Double.html#isInfinite\(\)](https://developer.android.com/reference/java/lang/Double.html#isInfinite())), or of any type not listed here.

This class can coerce values to another type when requested.

- When the requested type is a boolean, strings will be coerced using a case-insensitive comparison to "true" and "false".
- When the requested type is a double, other Number (<https://developer.android.com/reference/java/lang/Number.html>) types will be coerced using doubleValue ([https://developer.android.com/reference/java/lang/Number.html#doubleValue\(\)](https://developer.android.com/reference/java/lang/Number.html#doubleValue())). Strings that can be coerced using Double.valueOf(String) ([https://developer.android.com/reference/java/lang/Double.html#valueOf\(java.lang.String\)](https://developer.android.com/reference/java/lang/Double.html#valueOf(java.lang.String))) will be.
- When the requested type is an int, other Number (<https://developer.android.com/reference/java/lang/Number.html>) types will be coerced using intValue ([https://developer.android.com/reference/java/lang/Number.html#intValue\(\)](https://developer.android.com/reference/java/lang/Number.html#intValue())). Strings that can be coerced using Double.valueOf(String) ([https://developer.android.com/reference/java/lang/Double.html#valueOf\(java.lang.String\)](https://developer.android.com/reference/java/lang/Double.html#valueOf(java.lang.String))) will be, and then cast to int.
- When the requested type is a long, other Number (<https://developer.android.com/reference/java/lang/Number.html>) types will be coerced using longValue ([https://developer.android.com/reference/java/lang/Number.html#longValue\(\)](https://developer.android.com/reference/java/lang/Number.html#longValue())). Strings that

can be coerced using `Double.valueOf(String)`.

([https://developer.android.com/reference/java/lang/Double.html#valueOf\(java.lang.String\)](https://developer.android.com/reference/java/lang/Double.html#valueOf(java.lang.String))) will be, and then cast to long. This two-step conversion is lossy for very large values. For example, the string "9223372036854775806" yields the long 9223372036854775807.

- When the requested type is a String, other non-null values will be coerced using `String.valueOf(Object)`.

([https://developer.android.com/reference/java/lang/String.html#valueOf\(java.lang.Object\)](https://developer.android.com/reference/java/lang/String.html#valueOf(java.lang.Object))).

Although null cannot be coerced, the sentinel value `NULL`

(<https://developer.android.com/reference/org/json/JSONObject.html#NULL>) is coerced to the string "null".

This class can look up both mandatory and optional values:

- Use `getType()` to retrieve a mandatory value. This fails with a `JSONException` if the requested name has no value or if the value cannot be coerced to the requested type.
- Use `optType()` to retrieve an optional value. This returns a system- or user-supplied default if the requested name has no value or if the value cannot be coerced to the requested type.

**Warning:** this class represents null in two incompatible ways: the standard Java `null` reference, and the sentinel value `NULL`

(<https://developer.android.com/reference/org/json/JSONObject.html#NULL>). In particular, calling `put(name, null)` removes the named entry from the object but `put(name, JSONObject.NULL)` stores an entry whose value is `JSONObject.NULL`.

Instances of this class are not thread safe. Although this class is nonfinal, it was not designed for inheritance and should not be subclassed. In particular, self-use by overrideable methods is not specified. See *Effective Java* Item 17, "Design and Document or inheritance or else prohibit it" for further information.

## Summary

---

### Fields

---

<code>public static final</code>	<code><u>NULL</u></code>
<code><u>Object</u></code>	( <a href="https://developer.android.com/reference/org/json/JSONObject.html">https://developer.android.com/reference/org/json/JSONObject.html</a> ( <a href="https://developer.android.com/reference/java/lang/Object.html">https://developer.android.com/reference/java/lang/Object.html</a> )

A sentinel value used to explicitly define a name with no value.

## Public constructors

**JSONObject** ([https://developer.android.com/reference/org/json/JSONObject.html#JSONObject\(\)](https://developer.android.com/reference/org/json/JSONObject.html#JSONObject())) ( )

Creates a **JSONObject** with no name/value mappings.

**JSONObject**

([https://developer.android.com/reference/org/json/JSONObject.html#JSONObject\(java.util.Map\)](https://developer.android.com/reference/org/json/JSONObject.html#JSONObject(java.util.Map))) (**Map** (<https://developer.android.com/reference/java/util/Map.html>) **copyFrom**)

Creates a new **JSONObject** by copying all name/value mappings from the given map.

**JSONObject**

([https://developer.android.com/reference/org/json/JSONObject.html#JSONObject\(org.json.JSONTokener\)](https://developer.android.com/reference/org/json/JSONObject.html#JSONObject(org.json.JSONTokener))) (**JSONTokener** (<https://developer.android.com/reference/org/json/JSONTokener.html>) **readFrom**)

Creates a new **JSONObject** with name/value mappings from the next object in the tokenizer.

**JSONObject**

([https://developer.android.com/reference/org/json/JSONObject.html#JSONObject\(java.lang.String\)](https://developer.android.com/reference/org/json/JSONObject.html#JSONObject(java.lang.String))) (**String** (<https://developer.android.com/reference/java/lang/String.html>) **json**)

Creates a new **JSONObject** with name/value mappings from the JSON string.

**JSONObject**

([https://developer.android.com/reference/org/json/JSONObject.html#JSONObject\(org.json.JSONObject,%20java.lang.String\[\]\)](https://developer.android.com/reference/org/json/JSONObject.html#JSONObject(org.json.JSONObject,%20java.lang.String[]))) (**JSONObject** (<https://developer.android.com/reference/org/json/JSONObject.html>) **copyFrom**, **String[]** (<https://developer.android.com/reference/java/lang/String.html>) **names**)

Creates a new **JSONObject** by copying mappings for the listed names from the given object.

## Public methods

**JSONObject**

([https://developer.android.com/reference/org/json/JSONObject.html#accumulate\(java.lang.String,%20java.lang.Object\)](https://developer.android.com/reference/org/json/JSONObject.html#accumulate(java.lang.String,%20java.lang.Object))) (**String** (<https://developer.android.com/reference/java/lang/String.html>) **name**, **Object** (<https://developer.android.com/reference/java/lang/Object.html>) **value**)

Appends **value** to the array already mapped to **name**.

**Object**

([https://developer.android.com/reference/java/lang/Object.html#getValue\(\)](https://developer.android.com/reference/java/lang/Object.html#getValue())) (**get** ([https://developer.android.com/reference/org/json/JSONObject.html#getValue\(java.lang.String\)](https://developer.android.com/reference/org/json/JSONObject.html#getValue(java.lang.String))) (**String**

(<https://developer.android.com/reference/java/lang/String.html>)  
**name**)

Returns the value mapped by **name**, or throws if no such mapping exists.

---

**boolean**

**getBoolean**

([https://developer.android.com/reference/org/json/JSONObject.html#getBoolean\(java.lang.String\)](https://developer.android.com/reference/org/json/JSONObject.html#getBoolean(java.lang.String)))  
(**String**  
(<https://developer.android.com/reference/java/lang/String.html>)  
**name**)

Returns the value mapped by **name** if it exists and is a boolean or can be coerced to a boolean, or throws otherwise.

---

**double**

**getDouble**

([https://developer.android.com/reference/org/json/JSONObject.html#getDouble\(java.lang.String\)](https://developer.android.com/reference/org/json/JSONObject.html#getDouble(java.lang.String)))  
(**String**  
(<https://developer.android.com/reference/java/lang/String.html>)  
**name**)

Returns the value mapped by **name** if it exists and is a double or can be coerced to a double, or throws otherwise.

---

**int**

**getInt**

([https://developer.android.com/reference/org/json/JSONObject.html#getInt\(java.lang.String\)](https://developer.android.com/reference/org/json/JSONObject.html#getInt(java.lang.String)))  
(**String**  
(<https://developer.android.com/reference/java/lang/String.html>)  
**name**)

Returns the value mapped by **name** if it exists and is an int or can be coerced to an int, or throws otherwise.

---

**JSONArray**

**getJSONArray**

(<https://developer.android.com/reference/org/json/JSONArray.html>)  
([https://developer.android.com/reference/org/json/JSONObject.html#getJSONArray\(java.lang.String\)](https://developer.android.com/reference/org/json/JSONObject.html#getJSONArray(java.lang.String)))  
(**String**  
(<https://developer.android.com/reference/java/lang/String.html>)  
**name**)

Returns the value mapped by **name** if it exists and is a **JSONArray**, or throws otherwise.

---

**JSONObject**

**getJSONObject**

(<https://developer.android.com/reference/org/json/JSONObject.html>)  
([https://developer.android.com/reference/org/json/JSONObject.html#getJSONObject\(java.lang.String\)](https://developer.android.com/reference/org/json/JSONObject.html#getJSONObject(java.lang.String)))  
(**String**

(<https://developer.android.com/reference/java/lang/String.html>)  
**name**)

Returns the value mapped by **name** if it exists and is a **JSONObject**, or throws otherwise.

---

**long**

**getLong**

([https://developer.android.com/reference/org/json/JSONObject.html#getLong\(java.lang.String\)](https://developer.android.com/reference/org/json/JSONObject.html#getLong(java.lang.String)))

(**String**

(<https://developer.android.com/reference/java/lang/String.html>)  
**name**)

Returns the value mapped by **name** if it exists and is a long or can be coerced to a long, or throws otherwise.

---

**String**

(<https://developer.android.com/reference/java/lang/String.html>)

**getString**

([https://developer.android.com/reference/org/json/JSONObject.html#getString\(java.lang.String\)](https://developer.android.com/reference/org/json/JSONObject.html#getString(java.lang.String)))

(**String**

(<https://developer.android.com/reference/java/lang/String.html>)  
**name**)

Returns the value mapped by **name** if it exists, coercing it if necessary, or throws if no such mapping exists.

---

**boolean**

**has**

([https://developer.android.com/reference/org/json/JSONObject.html#has\(java.lang.String\)](https://developer.android.com/reference/org/json/JSONObject.html#has(java.lang.String)))

(**String**

(<https://developer.android.com/reference/java/lang/String.html>)  
**name**)

Returns true if this object has a mapping for **name**.

---

**boolean**

**isNull**

([https://developer.android.com/reference/org/json/JSONObject.html#isNull\(java.lang.String\)](https://developer.android.com/reference/org/json/JSONObject.html#isNull(java.lang.String)))

(**String**

(<https://developer.android.com/reference/java/lang/String.html>)  
**name**)

Returns true if this object has no mapping for **name** or if it has a mapping whose value is **NULL**

(<https://developer.android.com/reference/org/json/JSONObject.html#NULL>)

.

---

**Iterator**

**keys**

(<https://developer.android.com/reference/java/util/Iterator.html>) (<https://developer.android.com/reference/org/json/JSONObject.html>)  
#keys()  
<**String** ()  
(<https://developer.android.com/reference/java/lang/String.html>) Returns an iterator of the **String** names in this object.  
>

---

**int** **length**  
([https://developer.android.com/reference/org/json/JSONObject.html#length\(\)](https://developer.android.com/reference/org/json/JSONObject.html#length()))  
( )  
Returns the number of name/value mappings in this object.

---

**JSONArray** **names**  
([https://developer.android.com/reference/org/json/JSONArray.html#names\(\)](https://developer.android.com/reference/org/json/JSONArray.html#names()))  
( )  
Returns an array containing the string names in this object.

---

**static String** **numberToString**  
([https://developer.android.com/reference/java/lang/String.html#numberToString\(java.lang.Number\)](https://developer.android.com/reference/java/lang/String.html#numberToString(java.lang.Number)))  
(**Number** (<https://developer.android.com/reference/java/lang/Number.html>)  
**number**)  
Encodes the number as a JSON string.

---

**Object** **opt**  
([https://developer.android.com/reference/java/lang/Object.html#opt\(java.lang.String\)](https://developer.android.com/reference/java/lang/Object.html#opt(java.lang.String)))  
(**String** (<https://developer.android.com/reference/java/lang/String.html>)  
**name**)  
Returns the value mapped by **name**, or null if no such mapping exists.

---

**boolean** **optBoolean**  
([https://developer.android.com/reference/org/json/JSONObject.html#optBoolean\(java.lang.String,%20boolean\)](https://developer.android.com/reference/org/json/JSONObject.html#optBoolean(java.lang.String,%20boolean)))  
(**String** (<https://developer.android.com/reference/java/lang/String.html>)  
**name**, **boolean fallback**)  
Returns the value mapped by **name** if it exists and is a boolean or can be coerced to a boolean, or **fallback** otherwise.

---

**boolean** **optBoolean**

([https://developer.android.com/reference/org/json/JSONObject.html#optBoolean\(java.lang.String\)](https://developer.android.com/reference/org/json/JSONObject.html#optBoolean(java.lang.String)))  
(**String** (<https://developer.android.com/reference/java/lang/String.html>) **name**)

Returns the value mapped by **name** if it exists and is a boolean or can be coerced to a boolean, or false otherwise.

---

**double**

**optDouble**  
([https://developer.android.com/reference/org/json/JSONObject.html#optDouble\(java.lang.String,%20double\)](https://developer.android.com/reference/org/json/JSONObject.html#optDouble(java.lang.String,%20double)))  
(**String** (<https://developer.android.com/reference/java/lang/String.html>) **name**, **double fallback**)

Returns the value mapped by **name** if it exists and is a double or can be coerced to a double, or **fallback** otherwise.

---

**double**

**optDouble**  
([https://developer.android.com/reference/org/json/JSONObject.html#optDouble\(java.lang.String\)](https://developer.android.com/reference/org/json/JSONObject.html#optDouble(java.lang.String)))  
(**String** (<https://developer.android.com/reference/java/lang/String.html>) **name**)

Returns the value mapped by **name** if it exists and is a double or can be coerced to a double, or **NaN** otherwise.

---

**int**

**optInt**  
([https://developer.android.com/reference/org/json/JSONObject.html#optInt\(java.lang.String,%20int\)](https://developer.android.com/reference/org/json/JSONObject.html#optInt(java.lang.String,%20int)))  
(**String** (<https://developer.android.com/reference/java/lang/String.html>) **name**, **int fallback**)

Returns the value mapped by **name** if it exists and is an int or can be coerced to an int, or **fallback** otherwise.

---

**int**

**optInt**  
([https://developer.android.com/reference/org/json/JSONObject.html#optInt\(java.lang.String\)](https://developer.android.com/reference/org/json/JSONObject.html#optInt(java.lang.String)))  
(**String** (<https://developer.android.com/reference/java/lang/String.html>) **name**)

Returns the value mapped by **name** if it exists and is an int or can be coerced to an int, or 0 otherwise.

---

**JSONArray**

**optJSONArray**

(<https://developer.android.com/reference/org/json/JSONArray.html> #optJSONArray(java.lang.String))  
)

(String  
(<https://developer.android.com/reference/java/lang/String.html>)  
name)

Returns the value mapped by **name** if it exists and is a **JSONArray**, or null otherwise.

---

JSONObject (<https://developer.android.com/reference/org/json/JSONObject.html> #optJSONObject(java.lang.String))  
ml)

(String  
(<https://developer.android.com/reference/java/lang/String.html>)  
name)

Returns the value mapped by **name** if it exists and is a **JSONObject**, or null otherwise.

---

**long** ([https://developer.android.com/reference/org/json/JSONObject.html#optLong\(java.lang.String\)](https://developer.android.com/reference/org/json/JSONObject.html#optLong(java.lang.String)))

(String  
(<https://developer.android.com/reference/java/lang/String.html>)  
name)

Returns the value mapped by **name** if it exists and is a long or can be coerced to a long, or 0 otherwise.

---

**long** ([https://developer.android.com/reference/org/json/JSONObject.html#optLong\(java.lang.String,%20long\)](https://developer.android.com/reference/org/json/JSONObject.html#optLong(java.lang.String,%20long)))

(String  
(<https://developer.android.com/reference/java/lang/String.html>)  
name, long fallback)

Returns the value mapped by **name** if it exists and is a long or can be coerced to a long, or **fallback** otherwise.

---

String ([https://developer.android.com/reference/org/json/JSONObject.html#optString\(java.lang.String,%20java.lang.String\)](https://developer.android.com/reference/org/json/JSONObject.html#optString(java.lang.String,%20java.lang.String)))

(String  
(<https://developer.android.com/reference/java/lang/String.html>)  
name, String  
(<https://developer.android.com/reference/java/lang/String.html>)  
fallback)

Returns the value mapped by **name** if it exists, coercing it if necessary, or **fallback** if no such mapping exists.

---



## String

(<https://developer.android.com/reference/java/lang/String.html>)

## optString

([https://developer.android.com/reference/org/json/JSONObject.html#optString\(java.lang.String\)](https://developer.android.com/reference/org/json/JSONObject.html#optString(java.lang.String)))

(**String**

(<https://developer.android.com/reference/java/lang/String.html>)

**name**)

Returns the value mapped by **name** if it exists, coercing it if necessary, or the empty string if no such mapping exists.

---

## JSONObject

(<https://developer.android.com/reference/org/json/JSONObject.html>)

## put

([https://developer.android.com/reference/org/json/JSONObject.html#put\(java.lang.String,%20double\)](https://developer.android.com/reference/org/json/JSONObject.html#put(java.lang.String,%20double)))

(**String**

(<https://developer.android.com/reference/java/lang/String.html>)

**name, double value**)

Maps **name** to **value**, clobbering any existing name/value mapping with the same name.

---

## JSONObject

(<https://developer.android.com/reference/org/json/JSONObject.html>)

## put

([https://developer.android.com/reference/org/json/JSONObject.html#put\(java.lang.String,%20boolean\)](https://developer.android.com/reference/org/json/JSONObject.html#put(java.lang.String,%20boolean)))

(**String**

(<https://developer.android.com/reference/java/lang/String.html>)

**name, boolean value**)

Maps **name** to **value**, clobbering any existing name/value mapping with the same name.

---

## JSONObject

(<https://developer.android.com/reference/org/json/JSONObject.html>)

## put

([https://developer.android.com/reference/org/json/JSONObject.html#put\(java.lang.String,%20int\)](https://developer.android.com/reference/org/json/JSONObject.html#put(java.lang.String,%20int)))

(**String**

(<https://developer.android.com/reference/java/lang/String.html>)

**name, int value**)

Maps **name** to **value**, clobbering any existing name/value mapping with the same name.

---

## JSONObject

(<https://developer.android.com/reference/org/json/JSONObject.html>)

## put

([https://developer.android.com/reference/org/json/JSONObject.html#put\(java.lang.String,%20long\)](https://developer.android.com/reference/org/json/JSONObject.html#put(java.lang.String,%20long)))

(**String**

(<https://developer.android.com/reference/java/lang/String.html>)

**name, long value**)

Maps **name** to **value**, clobbering any existing name/value mapping with the same name.

---

## JSONObject

(<https://developer.android.com/reference/org/json/JSONObject.html>)

## put

([#put\(java.lang.String,%20java.lang.Object\)\)](https://developer.android.com/reference/org/json/JSONObject.html#put(java.lang.String,%20java.lang.Object)))

(String

(<https://developer.android.com/reference/java/lang/String.html>)

name, Object

(<https://developer.android.com/reference/java/lang/Object.html>)

value)

Maps **name** to **value**, clobbering any existing name/value mapping with the same name.

---

## JSONObject

(<https://developer.android.com/reference/org/json/JSONObject.html>)

## putOpt

([#putOpt\(java.lang.String,%20java.lang.Object\)\)](https://developer.android.com/reference/org/json/JSONObject.html#putOpt(java.lang.String,%20java.lang.Object)))

(String

(<https://developer.android.com/reference/java/lang/String.html>)

name, Object

(<https://developer.android.com/reference/java/lang/Object.html>)

value)

Equivalent to **put(name, value)** when both parameters are non-null; does nothing otherwise.

---

## **static** String

(<https://developer.android.com/reference/java/lang/String.html>)

## quote

([#quote\(java.lang.String\)\)](https://developer.android.com/reference/org/json/JSONObject.html#quote(java.lang.String)))

(String

(<https://developer.android.com/reference/java/lang/String.html>)

data)

Encodes **data** as a JSON string.

---

## Object

(<https://developer.android.com/reference/java/lang/Object.html>)

## remove

([#remove\(java.lang.String\)\)](https://developer.android.com/reference/org/json/JSONObject.html#remove(java.lang.String)))

(String

(<https://developer.android.com/reference/java/lang/String.html>)

name)

Removes the named mapping if it exists; does nothing otherwise.

---

## JSONArray

(<https://developer.android.com/reference/org/json/JSONArray.html>)

## toArray

([#toArray\(org.json.JSONArray\)\)](https://developer.android.com/reference/org/json/JSONArray.html#toArray(org.json.JSONArray)))

(JSONArray

(<https://developer.android.com/reference/org/json/JSONArray.html>)

names)

Returns an array with the values corresponding to **names**.

---

## String

(<https://developer.android.com/reference/java/lang/String.html>)

## toString

([https://developer.android.com/reference/org/json/JSONObject.html#toString\(\)](https://developer.android.com/reference/org/json/JSONObject.html#toString()))  
( )

Encodes this object as a compact JSON string, such as:

```
{"query": "Pizza", "locations": [ 94043, 90210]}
```



## String

(<https://developer.android.com/reference/java/lang/String.html>)

## toString

([https://developer.android.com/reference/org/json/JSONObject.html#toString\(int\)](https://developer.android.com/reference/org/json/JSONObject.html#toString(int)))  
#toString(int)  
(int indentSpaces)

Encodes this object as a human readable JSON string for debugging, such as:

```
{
  "query": "Pizza",
  "locations": [
    94043,
    90210
  ]
}
```



## static Object

(<https://developer.android.com/reference/java/lang/Object.html>)

## wrap

([https://developer.android.com/reference/org/json/JSONObject.html#wrap\(java.lang.Object\)](https://developer.android.com/reference/org/json/JSONObject.html#wrap(java.lang.Object)))  
#wrap(java.lang.Object)  
(Object  
(<https://developer.android.com/reference/java/lang/Object.html>) o)

Wraps the given object if necessary.

## Inherited methods

From class java.lang.Object (<https://developer.android.com/reference/java/lang/Object.html>)

Object (<https://developer.android.com/reference/java/lang/Object.html>)

## clone

([https://developer.android.com/reference/java/lang/Object.html#clone\(\)](https://developer.android.com/reference/java/lang/Object.html#clone()))  
( )

Creates and returns a copy of this object.

boolean

equals

	<a href="https://developer.android.com/reference/java/lang/Object">https://developer.android.com/reference/java/lang/Object</a> <b><u>Object</u></b> <a href="https://developer.android.com/reference/java/lang/Object">https://developer.android.com/reference/java/lang/Object</a> <b>obj)</b>
	Indicates whether the object is "equal" to another.
<b>void</b>	<b><u>finalize</u></b> <a href="https://developer.android.com/reference/java/lang/Object/finalize">https://developer.android.com/reference/java/lang/Object/finalize()</a> <b>()</b> Called by the garbage collector on an object whose <code>finalize</code> method has been invoked. It determines whether the object should be discarded.
<b>final Class</b> <a href="https://developer.android.com/reference/java/lang/Class.html">https://developer.android.com/reference/java/lang/Class.html</a>	<b><u>getClass</u></b> <a href="https://developer.android.com/reference/java/lang/Class/getClass">https://developer.android.com/reference/java/lang/Class/getClass()</a> <b>()</b> Returns the runtime class of this <code>Object</code> .
<b>int</b>	<b><u>hashCode</u></b> <a href="https://developer.android.com/reference/java/lang/Object/hashCode">https://developer.android.com/reference/java/lang/Object/hashCode()</a> <b>()</b> Returns a hash code for this <code>Object</code> .
<b>final void</b>	<b><u>notify</u></b> <a href="https://developer.android.com/reference/java/lang/Object/notify">https://developer.android.com/reference/java/lang/Object/notify()</a> <b>()</b> Wakes up a single thread that has been waiting on this object's monitor.
<b>final void</b>	<b><u>notifyAll</u></b>

Wakes up all the  
waiting on this

toString  
(https://devel  
ference/java/l  
String())  
( )

```
final void
```

wait  
(https://develo  
ference/java/la  
ait(long,%20int  
(long milli

```
final void
```

wait  
([https://developer.mozilla.org/en-US/docs/Web/JavaScript/Reference/Global\\_Objects/Wait](https://developer.mozilla.org/en-US/docs/Web/JavaScript/Reference/Global_Objects/Wait))  
wait(long)  
(long milliseconds)

Causes the current thread to wait until either another thread has terminated or the **notify()** method has been called on this object. (https://developer.mozilla.org/en-US/docs/Web/JavaScript/Reference/Global\_Objects/Object/notify())

method or the  
([https://develo  
ference/java/la  
tifyAll\(\)](https://developer.android.com/reference/java/lang/Object#notifyAll()))  
method for this  
specified amon  
elapsed.

---

**final void**

**wait**

([https://deve  
/reference/ja  
ml#wait\(\)](https://developer.android.com/reference/java/lang/Object#wait()))  
( )

Causes the c  
wait until ano  
invokes the **n**  
([https://deve  
/reference/ja  
ml#notify\(\)](https://developer.android.com/reference/java/lang/Object#notify()))  
method or the  
([https://deve  
/reference/ja  
ml#notifyAll\(\)](https://developer.android.com/reference/java/lang/Object#notifyAll()))  
method for th

## Fields

---

**Null**  
added in [API level 1](https://developer.android.com/guide/topics/manifest/uses-sdk-element.html#ApiLevels)

(<https://developer.android.com/guide/topics/manifest/uses-sdk-element.html#ApiLevels>)

A sentinel value used to explicitly define a name with no value. Unlike `null`, names with this value:

- show up in the **names()**.  
([https://developer.android.com/reference/org/json/JSONObject.html#names\(\)](https://developer.android.com/reference/org/json/JSONObject.html#names())) array
- show up in the **keys()**.  
([https://developer.android.com/reference/org/json/JSONObject.html#keys\(\)](https://developer.android.com/reference/org/json/JSONObject.html#keys())) iterator
- return **true** for **has(String)**.  
([https://developer.android.com/reference/org/json/JSONObject.html#has\(java.lang.String\)](https://developer.android.com/reference/org/json/JSONObject.html#has(java.lang.String)))

- do not throw on **get(String)**.  
([https://developer.android.com/reference/org/json/JSONObject.html#get\(java.lang.String\)](https://developer.android.com/reference/org/json/JSONObject.html#get(java.lang.String)))
- are included in the encoded JSON string.

This value violates the general contract of **Object.equals(Object)**.

([https://developer.android.com/reference/java/lang/Object.html#equals\(java.lang.Object\)](https://developer.android.com/reference/java/lang/Object.html#equals(java.lang.Object))) by returning true when compared to null. Its **toString()**.

([https://developer.android.com/reference/org/json/JSONObject.html#toString\(\)](https://developer.android.com/reference/org/json/JSONObject.html#toString())) method returns "null".

## Public constructors

---

### **JSONObject**

(<https://developer.android.com/guide/topics/manifest/uses-sdk-element.html#ApiLevels>)

Creates a **JSONObject** with no name/value mappings.

### **JSONObject**

(<https://developer.android.com/guide/topics/manifest/uses-sdk-element.html#ApiLevels>)

Creates a new **JSONObject** by copying all name/value mappings from the given map.

## Parameters

---

**copyFrom**

**Map:** a map whose keys are of type **String**

(<https://developer.android.com/reference/java/lang/String.html>) and whose values are of supported types.

## Throws

---

**NullPointerException**

if any of the map's keys are null.

(<https://developer.android.com/reference/java/lang/NullPointerException.html>)

## JSONObject

Accessed in API Level 1

(<https://developer.android.com/guide/topics/manifest/uses-sdk-element.html#ApiLevels>)

Creates a new **JSONObject** with name/value mappings from the next object in the tokenizer.

### Parameters

---

<b>readFrom</b>	<b>JSONTokenizer</b> : a tokenizer whose <code>nextValue()</code> method will yield a <b>JSONObject</b> .
-----------------	---

### Throws

---

<b><u>JSONException</u></b> ( <a href="https://developer.android.com/reference/org/json/JSONException.html">https://developer.android.com/reference/org/json/JSONException.html</a> )	if the parse fails or doesn't yield a <b>JSONObject</b> .
--	---

## JSONObject

Accessed in API Level 1

(<https://developer.android.com/guide/topics/manifest/uses-sdk-element.html#ApiLevels>)

Creates a new **JSONObject** with name/value mappings from the JSON string.

### Parameters

---

<b>json</b>	<b>String</b> : a JSON-encoded string containing an object.
-------------	---

### Throws

---

<b><u>JSONException</u></b> ( <a href="https://developer.android.com/reference/org/json/JSONException.html">https://developer.android.com/reference/org/json/JSONException.html</a> )	if the parse fails or doesn't yield a <b>JSONObject</b> .
--	---

## JSONObject



added in [API level 1](#)

(<https://developer.android.com/guide/topics/manifest/uses-sdk-element.html#ApiLevels>)

Creates a new `JSONObject` by copying mappings for the listed names from the given object. Names that aren't present in `copyFrom` will be skipped.

## Parameters

---

<code>copyFrom</code>	<code>JSONObject</code>
-----------------------	-------------------------

---

<code>names</code>	<code>String</code>
--------------------	---------------------

## Throws

---

### `JSONException`

(<https://developer.android.com/reference/org/json/JSONException.html>)

## Public methods

---

### `accumulate`

(<https://developer.android.com/guide/topics/manifest/uses-sdk-element.html#ApiLevels>)

Appends `value` to the array already mapped to `name`. If this object has no mapping for `name`, this inserts a new mapping. If the mapping exists but its value is not an array, the existing and new values are inserted in order into a new array which is itself mapped to `name`. In aggregate, this allows values to be added to a mapping one at a time.

Note that `append(String, Object)` provides better semantics. In particular, the mapping for `name` will **always** be a `JSONArray`.

(<https://developer.android.com/reference/org/json/JSONArray.html>). Using `accumulate` will result in either a `JSONArray` (<https://developer.android.com/reference/org/json/JSONArray.html>) or a mapping whose type is the type of `value` depending on the number of calls to it.

## Parameters

<b>name</b>	<b>String</b>
<b>value</b>	<b>Object:</b> a <u><a href="https://developer.android.com/reference/org/json/JSONObject.html">JSONObject</a></u> ( <a href="https://developer.android.com/reference/org/json/JSONObject.html">https://developer.android.com/reference/org/json/JSONObject.html</a> ) , <u><a href="https://developer.android.com/reference/org/json/JSONArray.html">JSONArray</a></u> ( <a href="https://developer.android.com/reference/org/json/JSONArray.html">https://developer.android.com/reference/org/json/JSONArray.html</a> ), String, Boolean, Integer, Long, Double, <u><a href="https://developer.android.com/reference/org/json/JSONObject.html#NULL">NULL</a></u> ( <a href="https://developer.android.com/reference/org/json/JSONObject.html#NULL">https://developer.android.com/reference/org/json/JSONObject.html#NULL</a> ) or null. May not be <u><a href="https://developer.android.com/reference/java/lang/Double.html#isNaN()">NaNs</a></u> ( <a href="https://developer.android.com/reference/java/lang/Double.html#isNaN()">https://developer.android.com/reference/java/lang/Double.html#isNaN()</a> ) or <u><a href="https://developer.android.com/reference/java/lang/Double.html#isInfinite()">infinities</a></u> ( <a href="https://developer.android.com/reference/java/lang/Double.html#isInfinite()">https://developer.android.com/reference/java/lang/Double.html#isInfinite()</a> ) .

## Returns

[JSONObject](https://developer.android.com/reference/org/json/JSONObject.html)  
 (<https://developer.android.com/reference/org/json/JSONObject.html>)

## Throws

[JSONException](https://developer.android.com/reference/org/json/JSONException.html)  
 (<https://developer.android.com/reference/org/json/JSONException.html>)

**get** introduced in [API level 1](https://developer.android.com/guide/topics/manifest/uses-sdk-element.html#ApiLevels)  
 (<https://developer.android.com/guide/topics/manifest/uses-sdk-element.html#ApiLevels>)

Returns the value mapped by **name**, or throws if no such mapping exists.

## Parameters

<b>name</b>	<b>String</b>
-------------	---------------

## Returns

---

### Object

(<https://developer.android.com/reference/java/lang/Object.html>)

## Throws

---

**JSONException** if no such mapping exists.

(<https://developer.android.com/reference/org/json/JSONException.html>)

### getBoolean

(<https://developer.android.com/guide/topics/manifest/uses-sdk-element.html#ApiLevels>)

Returns the value mapped by **name** if it exists and is a boolean or can be coerced to a boolean, or throws otherwise.

## Parameters

---

<b>name</b>	<b>String</b>
-------------	---------------

## Returns

---

**boolean**

## Throws

---

**JSONException** if the mapping doesn't exist or cannot be coerced to a boolean.

(<https://developer.android.com/reference/org/json/JSONException.html>)

### getDouble

**public double** **getDouble** (**String** (<https://developer.android.com/reference/java/lang/String.html>)  
(<https://developer.android.com/guide/topics/manifest/uses-sdk-element.html#ApiLevels>)  
Returns the value mapped by **name** if it exists and is a double or can be coerced to a double,  
or throws otherwise.

## Parameters

---

<b>name</b>	<b>String</b>
-------------	---------------

## Returns

---

**double**

## Throws

---

**JSONException** if the mapping doesn't exist or cannot be coerced to a double.  
(<https://developer.android.com/reference/org/json/JSONException.html>)

**public int** **getInt** (**String** (<https://developer.android.com/guide/topics/manifest/uses-sdk-element.html#ApiLevels>)  
Returns the value mapped by **name** if it exists and is an int or can be coerced to an int, or  
throws otherwise.

## Parameters

---

<b>name</b>	<b>String</b>
-------------	---------------

## Returns

---

**int**

## Throws

---

**JSONException** if the mapping doesn't exist or cannot be coerced to an int.  
(<https://developer.android.com/reference/org/json/JSONException.html>)

## **getJSONArray**

(<https://developer.android.com/guide/topics/manifest/uses-sdk-element.html#ApiLevels>)

Returns the value mapped by **name** if it exists and is a **JSONArray**, or throws otherwise.

### **Parameters**

---

<b>name</b>	<b>String</b>
-------------	---------------

### **Returns**

#### **JSONArray**

(<https://developer.android.com/reference/org/json/JSONArray.html>)

### **Throws**

---

**JSONException** if the mapping doesn't exist or is not a **JSONArray**.  
(<https://developer.android.com/reference/org/json/JSONException.html>)

## **getJSONObject**

(<https://developer.android.com/guide/topics/manifest/uses-sdk-element.html#ApiLevels>)

Returns the value mapped by **name** if it exists and is a **JSONObject**, or throws otherwise.

### **Parameters**

---

<b>name</b>	<b>String</b>
-------------	---------------

## Returns

---

### JSONObject

(<https://developer.android.com/reference/org/json/JSONObject.html>)

## Throws

---

### JSONException

if the mapping doesn't exist or is not a **JSONObject**.

(<https://developer.android.com/reference/org/json/JSONException.html>)

### getLong

(<https://developer.android.com/guide/topics/manifest/uses-sdk-element.html#ApiLevels>)

Returns the value mapped by `name` if it exists and is a long or can be coerced to a long, or throws otherwise. Note that JSON represents numbers as doubles, so this is lossy (#lossy); use strings to transfer numbers via JSON.

## Parameters

---

<code>name</code>	<code>String</code>
-------------------	---------------------

## Returns

---

`long`

## Throws

---

### JSONException

if the mapping doesn't exist or cannot be coerced to a long.

(<https://developer.android.com/reference/org/json/JSONException.html>)

## **getString**

added in [API level 1](#)

(<https://developer.android.com/guide/topics/manifest/uses-sdk-element.html#ApiLevels>)

Returns the value mapped by **name** if it exists, coercing it if necessary, or throws if no such mapping exists.

### Parameters

---

<b>name</b>	<b>String</b>
-------------	---------------

### Returns

---

#### **String**

(<https://developer.android.com/reference/java/lang/String.html>)

### Throws

---

**JSONException** if no such mapping exists.

(<https://developer.android.com/reference/org/json/JSONException.html>)

## **has**

added in [API level 1](#)

(<https://developer.android.com/guide/topics/manifest/uses-sdk-element.html#ApiLevels>)

Returns true if this object has a mapping for **name**. The mapping may be **NULL**

(<https://developer.android.com/reference/org/json/JSONObject.html#NULL>).

### Parameters

---

<b>name</b>	<b>String</b>
-------------	---------------

### Returns

---

**boolean**

## **isNull** API level 1

(<https://developer.android.com/guide/topics/manifest/uses-sdk-element.html#ApiLevels>)

Returns true if this object has no mapping for **name** or if it has a mapping whose value is **NULL** (<https://developer.android.com/reference/org/json/JSONObject.html#NULL>).

### Parameters

---

<b>name</b>	<b>String</b>
-------------	---------------

### Returns

---

**boolean**

## **keys** API level 1

(<https://developer.android.com/guide/topics/manifest/uses-sdk-element.html#ApiLevels>)

Returns an iterator of the **String** names in this object. The returned iterator supports **remove** ([https://developer.android.com/reference/java/util/Iterator.html#remove\(\)](https://developer.android.com/reference/java/util/Iterator.html#remove())), which will remove the corresponding mapping from this object. If this object is modified after the iterator is returned, the iterator's behavior is undefined. The order of the keys is undefined.

### Returns

---

#### **Iterator**

(<https://developer.android.com/reference/java/util/Iterator.html>)

**<String**

(<https://developer.android.com/reference/java/lang/String.html>)

**>**

## **length** API level 1

(<https://developer.android.com/guide/topics/manifest/uses-sdk-element.html#ApiLevels>)



Returns the number of name/value mappings in this object.

## Returns

---

**int**

**names**  
Added in API level 1

(<https://developer.android.com/guide/topics/manifest/uses-sdk-element.html#ApiLevels>)

Returns an array containing the string names in this object. This method returns null if this object contains no mappings.

## Returns

---

**JSONArray**

(<https://developer.android.com/reference/org/json/JSONArray.html>)

**numberToString**  
Added in API level 1

(<https://developer.android.com/guide/topics/manifest/uses-sdk-element.html#ApiLevels>)

Encodes the number as a JSON string.

## Parameters

---

**number**

**Number:** a finite value. May not be **NaNs**

([https://developer.android.com/reference/java/lang/Double.html#isNaN\(\)](https://developer.android.com/reference/java/lang/Double.html#isNaN()))

or **infinities**

([https://developer.android.com/reference/java/lang/Double.html#isInfinite\(\)](https://developer.android.com/reference/java/lang/Double.html#isInfinite()))

## Returns

---

## String

(<https://developer.android.com/reference/java/lang/String.html>)

## Throws

---

## JSONException

(<https://developer.android.com/reference/org/json/JSONException.html>)

## opt in API level 1

(<https://developer.android.com/guide/topics/manifest/uses-sdk-element.html#ApiLevels>)

Returns the value mapped by `name`, or null if no such mapping exists.

## Parameters

---

<code>name</code>	<code>String</code>
-------------------	---------------------

## Returns

---

## Object

(<https://developer.android.com/reference/java/lang/Object.html>)

## optBoolean in API level 1

(<https://developer.android.com/guide/topics/manifest/uses-sdk-element.html#ApiLevels>)

Returns the value mapped by `name` if it exists and is a boolean or can be coerced to a boolean, or `fallback` otherwise.

## Parameters

---

<code>name</code>	<code>String</code>
-------------------	---------------------

---

<b>fallback</b>	<b>boolean</b>
-----------------	----------------

## Returns

---

**boolean**

## **optBoolean** Added in API level 1

(<https://developer.android.com/guide/topics/manifest/uses-sdk-element.html#ApiLevels>)

Returns the value mapped by **name** if it exists and is a boolean or can be coerced to a boolean, or false otherwise.

## Parameters

---

<b>name</b>	<b>String</b>
-------------	---------------

## Returns

---

**boolean**

## **optDouble** Added in API level 1

(<https://developer.android.com/guide/topics/manifest/uses-sdk-element.html#ApiLevels>)

Returns the value mapped by **name** if it exists and is a double or can be coerced to a double, or **fallback** otherwise.

## Parameters

---

<b>name</b>	<b>String</b>
-------------	---------------

---

<b>fallback</b>	<b>double</b>
-----------------	---------------

## Returns

---

**double**

## **optDouble** supported API level 1

(<https://developer.android.com/guide/topics/manifest/uses-sdk-element.html#ApiLevels>)

Returns the value mapped by **name** if it exists and is a double or can be coerced to a double, or **NaN** otherwise.

## Parameters

---

<b>name</b>	<b>String</b>
-------------	---------------

## Returns

---

**double**

## **optInt** supported API level 1

(<https://developer.android.com/guide/topics/manifest/uses-sdk-element.html#ApiLevels>)

Returns the value mapped by **name** if it exists and is an int or can be coerced to an int, or **fallback** otherwise.

## Parameters

---

<b>name</b>	<b>String</b>
-------------	---------------

---

<b>fallback</b>	<b>int</b>
-----------------	------------

## Returns

---

**int**

**optInt** API level 1

(<https://developer.android.com/guide/topics/manifest/uses-sdk-element.html#ApiLevels>)

Returns the value mapped by **name** if it exists and is an int or can be coerced to an int, or 0 otherwise.

#### Parameters

---

<b>name</b>	<b>String</b>
-------------	---------------

#### Returns

---

**int**

**optJSONArray** API level 1

(<https://developer.android.com/guide/topics/manifest/uses-sdk-element.html#ApiLevels>)

Returns the value mapped by **name** if it exists and is a **JSONArray**, or null otherwise.

#### Parameters

---

<b>name</b>	<b>String</b>
-------------	---------------

#### Returns

---

**JSONArray**

(<https://developer.android.com/reference/org/json/JSONArray.html>)

## optJSONObject

<https://developer.android.com/guide/topics/manifest/uses-sdk-element.html#ApiLevels>

Returns the value mapped by **name** if it exists and is a **JSONObject**, or null otherwise.

### Parameters

---

<b>name</b>	<b>String</b>
-------------	---------------

### Returns

---

#### JSONObject

(<https://developer.android.com/reference/org/json/JSONObject.html>)

## optLong

<https://developer.android.com/guide/topics/manifest/uses-sdk-element.html#ApiLevels>

Returns the value mapped by **name** if it exists and is a long or can be coerced to a long, or 0 otherwise. Note that JSON represents numbers as doubles, so this is lossy (#lossy); use strings to transfer numbers via JSON.

### Parameters

---

<b>name</b>	<b>String</b>
-------------	---------------

### Returns

---

**long**

## optLong

<https://developer.android.com/guide/topics/manifest/uses-sdk-element.html#ApiLevels>

```
public long optLong (String name, long fallback)
```

Returns the value mapped by **name** if it exists and is a long or can be coerced to a long, or **fallback** otherwise. Note that JSON represents numbers as doubles, so this is lossy (#lossy); use strings to transfer numbers via JSON.

### Parameters

<b>name</b>	<b><a href="https://developer.android.com/reference/java/lang/String.html">String</a></b>
-------------	---

<b>fallback</b>	<b>long</b>
-----------------	-------------

### Returns

**long**

### **optString** since API level 1

(<https://developer.android.com/guide/topics/manifest/uses-sdk-element.html#ApiLevels>)

Returns the value mapped by **name** if it exists, coercing it if necessary, or **fallback** if no such mapping exists.

### Parameters

<b>name</b>	<b><a href="https://developer.android.com/reference/java/lang/String.html">String</a></b>
-------------	---

<b>fallback</b>	<b><a href="https://developer.android.com/reference/java/lang/String.html">String</a></b>
-----------------	---

### Returns

**[String](https://developer.android.com/reference/java/lang/String.html)**

(<https://developer.android.com/reference/java/lang/String.html>)

## getString

Added in API level 1

(<https://developer.android.com/guide/topics/manifest/uses-sdk-element.html#ApiLevels>)

Returns the value mapped by **name** if it exists, coercing it if necessary, or the empty string if no such mapping exists.

### Parameters

---

<b>name</b>	<b>String</b>
-------------	---------------

### Returns

#### String

(<https://developer.android.com/reference/java/lang/String.html>)

## put

Added in API level 1

(<https://developer.android.com/guide/topics/manifest/uses-sdk-element.html#ApiLevels>)

Maps **name** to **value**, clobbering any existing name/value mapping with the same name.

### Parameters

---

<b>name</b>	<b>String</b>
-------------	---------------

---

<b>value</b>	<b>double:</b> a finite value. May not be <u><b>NaNs</b></u> ( <a href="https://developer.android.com/reference/java/lang/Double.html#isNaN()">https://developer.android.com/reference/java/lang/Double.html#isNaN()</a> ) or <u><b>infinities</b></u> ( <a href="https://developer.android.com/reference/java/lang/Double.html#isFinite()">https://developer.android.com/reference/java/lang/Double.html#isFinite()</a> ) .
--------------	--

### Returns

---

<u><b>JSONObject</b></u>	this object.
--------------------------	--------------



(<https://developer.android.com/reference/org/json/JSONObject.html>)

## Throws

---

### JSONException

(<https://developer.android.com/reference/org/json/JSONException.html>)

**put** added in [API level 1](#)

(<https://developer.android.com/guide/topics/manifest/uses-sdk-element.html#ApiLevels>)

Maps **name** to **value**, clobbering any existing name/value mapping with the same name.

## Parameters

---

<b>name</b>	<b>String</b>
-------------	---------------

---

<b>value</b>	<b>boolean</b>
--------------	----------------

---

## Returns

---

<b>JSONObject</b>	this object.
-------------------	--------------

(<https://developer.android.com/reference/org/json/JSONObject.html>)

## Throws

---

### JSONException

(<https://developer.android.com/reference/org/json/JSONException.html>)

**put** added in [API level 1](#)

(<https://developer.android.com/guide/topics/manifest/uses-sdk-element.html#ApiLevels>)

Maps **name** to **value**, clobbering any existing name/value mapping with the same name.

### Parameters

---

<b>name</b>	<b>String</b>
-------------	---------------

---

<b>value</b>	<b>int</b>
--------------	------------

### Returns

---

<b><u>JSONObject</u></b>	this object.
--------------------------	--------------

(<https://developer.android.com/reference/org/json/JSONObject.html>)

### Throws

---

<b><u>JSONException</u></b>
-----------------------------

(<https://developer.android.com/reference/org/json/JSONException.html>)

**put** added in [API level 1](#)

(<https://developer.android.com/guide/topics/manifest/uses-sdk-element.html#ApiLevels>)

Maps **name** to **value**, clobbering any existing name/value mapping with the same name.

### Parameters

---

<b>name</b>	<b>String</b>
-------------	---------------

---

<b>value</b>	<b>long</b>
--------------	-------------

## Returns

---

**JSONObject** this object.

(<https://developer.android.com/reference/org/json/JSONObject.html>)

## Throws

---

**JSONException**

(<https://developer.android.com/reference/org/json/JSONException.html>)

**put** added in [API level 1](#)

(<https://developer.android.com/guide/topics/manifest/uses-sdk-element.html#ApiLevels>)

Maps **name** to **value**, clobbering any existing name/value mapping with the same name. If the value is **null**, any existing mapping for **name** is removed.

## Parameters

---

<b>name</b>	<b>String</b>
-------------	---------------

---

<b>value</b>	<b>Object:</b> a <b><u>JSONObject</u></b> ( <a href="https://developer.android.com/reference/org/json/JSONObject.html">https://developer.android.com/reference/org/json/JSONObject.html</a> ) , <b><u>JSONArray</u></b> ( <a href="https://developer.android.com/reference/org/json/JSONArray.html">https://developer.android.com/reference/org/json/JSONArray.html</a> ), String, Boolean, Integer, Long, Double, <b><u>NULL</u></b> ( <a href="https://developer.android.com/reference/org/json/JSONObject.html#NULL">https://developer.android.com/reference/org/json/JSONObject.html#NULL</a> ) , or <b>null</b> . May not be <b><u>NaNs</u></b> ( <a href="https://developer.android.com/reference/java/lang/Double.html#isNaN()">https://developer.android.com/reference/java/lang/Double.html#isNaN()</a> ) or <b><u>infinities</u></b> ( <a href="https://developer.android.com/reference/java/lang/Double.html#isInfinite()">https://developer.android.com/reference/java/lang/Double.html#isInfinite()</a> ) .
--------------	--

## Returns

---

**JSONObject** this object.

(<https://developer.android.com/reference/org/json/JSONObject.html>)

## Throws

---

**JSONException**

(<https://developer.android.com/reference/org/json/JSONException.html>)

**putOpt** API level 1

(<https://developer.android.com/guide/topics/manifest/uses-sdk-element.html#ApiLevels>)

Equivalent to `put(name, value)` when both parameters are non-null; does nothing otherwise.

## Parameters

---

<b>name</b>	<b>String</b>
-------------	---------------

---

<b>value</b>	<b>Object</b>
--------------	---------------

## Returns

---

**JSONObject**

(<https://developer.android.com/reference/org/json/JSONObject.html>)

## Throws

---

**JSONException**

(<https://developer.android.com/reference/org/json/JSONException.html>)

## **quote** added in API level 1

(<https://developer.android.com/guide/topics/manifest/uses-sdk-element.html#ApiLevels>)

Encodes **data** as a JSON string. This applies quotes and any necessary character escaping.

### Parameters

---

<b>data</b>	<b>String</b> : the string to encode. Null will be interpreted as an empty string.
-------------	--

### Returns

---

#### **String**

(<https://developer.android.com/reference/java/lang/String.html>)

## **remove** added in API level 1

(<https://developer.android.com/guide/topics/manifest/uses-sdk-element.html#ApiLevels>)

Removes the named mapping if it exists; does nothing otherwise.

### Parameters

---

<b>name</b>	<b>String</b>
-------------	---------------

### Returns

---

#### **Object**

the value previously mapped by **name**, or null if there was no such mapping.  
(<https://developer.android.com/reference/java/lang/Object.html>)

## toJsonArray

(<https://developer.android.com/guide/topics/manifest/uses-sdk-element.html#ApiLevels>)

Returns an array with the values corresponding to **names**. The array contains null for names that aren't mapped. This method returns null if **names** is either null or empty.

### Parameters

---

<b>names</b>	<b>JSONArray</b>
--------------	------------------

### Returns

#### JSONArray

(<https://developer.android.com/reference/org/json/JSONArray.html>)

### Throws

#### JSONException

(<https://developer.android.com/reference/org/json/JSONException.html>)

## toString

(<https://developer.android.com/guide/topics/manifest/uses-sdk-element.html#ApiLevels>)

Encodes this object as a compact JSON string, such as:

```
{"query": "Pizza", "locations": [94043, 90210]}
```



### Returns

#### String

a string representation of the object.

(<https://developer.android.com/reference/java/lang/String.html>)

## toString

Available from API level 1

(<https://developer.android.com/guide/topics/manifest/uses-sdk-element.html#ApiLevels>)

Encodes this object as a human readable JSON string for debugging, such as:

```
{
    "query": "Pizza",
    "locations": [
        94043,
        90210
    ]
}
```



### Parameters

---

<b>indentSpaces</b>	<b>int:</b> the number of spaces to indent for each level of nesting.
---------------------	---

### Returns

#### String

(<https://developer.android.com/reference/java/lang/String.html>)

### Throws

#### JSONException

(<https://developer.android.com/reference/org/json/JSONException.html>)

## wrap

Available from API level 19

(<https://developer.android.com/guide/topics/manifest/uses-sdk-element.html#ApiLevels>)

Wraps the given object if necessary.

If the object is null or , returns **NULL**

(<https://developer.android.com/reference/org/json/JSONObject.html#NULL>). If the object is a **JSONArray** or **JSONObject**, no wrapping is necessary. If the object is **NULL**, no wrapping is

necessary. If the object is an array or `Collection`, returns an equivalent `JSONArray`. If the object is a `Map`, returns an equivalent `JSONObject`. If the object is a primitive wrapper type or `String`, returns the object. Otherwise if the object is from a `java` package, returns the result of `toString`. If wrapping fails, returns null.

## Parameters

---

<b>o</b>	<b>Object</b>
----------	---------------

## Returns

---

### Object

(<https://developer.android.com/reference/java/lang/Object.html>)

---

*Content and code samples on this page are subject to the licenses described in the [Content License](#) (/license).  
Java is a registered trademark of Oracle and/or its affiliates.*

*Last updated June 6, 2018.*



**Twitter**

Follow @AndroidDev on  
Twitter



**Google+**

Follow Android Developers on  
Google+



**YouTube**

Check out Android Developers  
on YouTube