```
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()), infinities (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()). Strings that can be coerced using Double.valueOf(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()). Strings that can be coerced using Double.valueOf(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()). Strings that

can be coerced using `Double.valueOf(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)).
  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 get*Type*() 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 opt*Type*() 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

`public static final Object` (https://developer.android.com/reference/java/lang/Object.html)	`NULL` (https://developer.android.com/reference/org/json/JSONObject.html#NULL)
	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())**()**

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

JSONObject
(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.JSONToken
er))
(**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 tokener.

JSONObject
(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.JSONObjec
t,%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** (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)	**get** (https://developer.android.com/reference/org/json/JSONObject.html#get(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)) (**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)) (**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)) (**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 (https://developer.android.com/re ference/org/json/JSONArray.html)	**getJSONArray** (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 (https://developer.android.com/re ference/org/json/JSONObject.ht ml)	**getJSONObject** (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)) (`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/re ference/java/lang/String.html)	`getString` (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)) (`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)) (`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) `<String` (https://developer.android.com/reference/java/lang/String.html) `>`	(https://developer.android.com/reference/org/json/JSONObject.html#keys()) `()` Returns an iterator of the `String` names in this object.
`int`	`length` (https://developer.android.com/reference/org/json/JSONObject.html#length()) `()` Returns the number of name/value mappings in this object.
`JSONArray` (https://developer.android.com/reference/org/json/JSONArray.html) `)`	`names` (https://developer.android.com/reference/org/json/JSONObject.html#names()) `()` Returns an array containing the string names in this object.
`static String` (https://developer.android.com/reference/java/lang/String.html)	`numberToString` (https://developer.android.com/reference/org/json/JSONObject.html#numberToString(java.lang.Number)) `(Number` (https://developer.android.com/reference/java/lang/Number.html) `number)` Encodes the number as a JSON string.
`Object` (https://developer.android.com/reference/java/lang/Object.html)	`opt` (https://developer.android.com/reference/org/json/JSONObject.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)) `(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)) (**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)) (**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)) (**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)) (**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)) (**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)	(https://developer.android.com/reference/org/json/JSONObject.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** (https://developer.android.com/reference/org/json/JSONObject.html#optJSONObject(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 null otherwise.
long	**optLong** (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	**optLong** (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/java/lang/String.html)	**optString** (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)) (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)) (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)) (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)) (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)) (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` (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` (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` (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` (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)	`toJSONArray` (https://developer.android.com/reference/org/json/JSONObject.html#toJSONArray(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()) ()

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)) (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)) (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://deve /reference/ja ml#clone()) ()
	Creates and r this object.

boolean	equals

	(https://develo ference/java/la uals(java.lang.((**Object** (https://develo ference/java/la **obj**) Indicates whet object is "equa
void	**finalize** (https://develo ference/java/la alize()) () Called by the g an object wher determines tha references to t
final <u>Class</u> (https://developer.android.com/reference/java/lang/Class.html)**<?>**	**getClass** (https://develo ference/java/la tClass()) () Returns the rur **Object**.
int	**hashCode** (https://develo ference/java/la shCode()) () Returns a hash object.
final void	**notify** (https://develo ference/java/la tify()) () Wakes up a sir waiting on this
final void	**notifyAll**

	(https://develc
	ference/java/la
	tifyAll())
	( )
	Wakes up all th
	waiting on this
String (https://developer.android.com/reference/java/lang/String.html)	**toString**
	(https://develc
	ference/java/la
	String())
	( )
	Returns a strin
	the object.
final void	**wait**
	(https://develc
	ference/java/la
	ait(long,%20int
	(long milli
	Causes the cu
	until another th
	notify( )
	(https://develc
	ference/java/la
	tify())
	method or the
	(https://develc
	ference/java/la
	tifyAll())
	method for this
	other thread in
	thread, or a cer
	time has elaps
final void	**wait**
	(https://develc
	ference/java/la
	ait(long))
	(long milli
	Causes the cu
	until either ano
	the **notify**( )
	(https://develc
	ference/java/la
	tify())

	method or the _ (https://develc ference/java/la tifyAll()) method for this specified amou elapsed.
`final void`	<u>wait</u> (https://deve /reference/jav ml#wait()) ( ) Causes the cu wait until ano invokes the <u>n</u> (https://deve /reference/jav ml#notify()) method or the (https://deve /reference/jav ml#notifyAll() method for th

Fields

NUULln <u>API level 1</u>
(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 <u>names()</u>
  (https://developer.android.com/reference/org/json/JSONObject.html#names()) array

- show up in the <u>keys()</u>
  (https://developer.android.com/reference/org/json/JSONObject.html#keys()) iterator

- return `true` for <u>has(String)</u>
  (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))
- 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)) by returning true when compared to `null`. Its `toString()` (https://developer.android.com/reference/org/json/JSONObject.html#toString()) method returns "null".

Public constructors

JSONObject

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

JSONObject

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` (https://developer.android.com/reference/java/lang/NullPointerException.html)	if any of the map's keys are null.

JSONObject

Creates a new `JSONObject` with name/value mappings from the next object in the tokener.

Parameters

`readFrom`	`JSONTokener`: a tokener whose nextValue() method will yield a `JSONObject`.

Throws

`JSONException` (https://developer.android.com/reference/org/json/JSONException. html)	if the parse fails or doesn't yield a `JSONObject`.

JSONObject

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

Parameters

`json`	`String`: a JSON-encoded string containing an object.

Throws

`JSONException` (https://developer.android.com/reference/org/json/JSONException. html)	if the parse fails or doesn't yield a `JSONObject`.

JSONObject

added in

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

copyFrom	JSONObject
names	String

Throws

Public methods

accumulate

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

name	String
value	`Object`: a [JSONObject](https://developer.android.com/reference/org/json/JSONObject.html), [JSONArray](https://developer.android.com/reference/org/json/JSONArray.html), String, Boolean, Integer, Long, Double, [NULL](https://developer.android.com/reference/org/json/JSONObject.html#NULL) or null. May not be [NaNs](https://developer.android.com/reference/java/lang/Double.html#isNaN()) or [infinities](https://developer.android.com/reference/java/lang/Double.html#isInfinite()).

Returns

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

Throws

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

get

Added in [API level 1](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

name	String

Returns

Object
 (https://developer.android.com/re
ference/java/lang/Object.html)

Throws

JSONException   if no such mapping exists.
 (https://developer.android.com/re
ference/org/json/JSONException.
html)

getBoolean

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

Parameters

name   String

Returns

boolean

Throws

JSONException   if the mapping doesn't exist or cannot be coerced to a boolean.
 (https://developer.android.com/re
ference/org/json/JSONException.
html)

getDouble

public double getDouble (String (https://developer.android.com/reference/java/lang/String.html)
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 throws otherwise.

Parameters

name	String

Returns

double

Throws

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

getInt
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 an int or can be coerced to an int, or throws otherwise.

Parameters

name	String

Returns

int

Throws

`JSONException` (https://developer.android.com/re ference/org/json/JSONException. html)	if the mapping doesn't exist or cannot be coerced to an int.

getJSONArray

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

Parameters

name	String

Returns

`JSONArray` (https://developer.android.com/re ference/org/json/JSONArray.html)

Throws

`JSONException` (https://developer.android.com/re ference/org/json/JSONException. html)	if the mapping doesn't exist or is not a `JSONArray`.

getJSONObject

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

Parameters

name	String

Returns

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

Throws

[JSONException](https://developer.android.com/reference/org/json/JSONException.html) if the mapping doesn't exist or is not a `JSONObject`.

getLong

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

name	String

Returns

`long`

Throws

[JSONException](https://developer.android.com/reference/org/json/JSONException.html) if the mapping doesn't exist or cannot be coerced to a long.

getString

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

Parameters

name	String

Returns

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

Throws

<ins>JSONException</ins> (https://developer.android.com/reference/org/json/JSONException.html)	if no such mapping exists.

has

Returns true if this object has a mapping for `name`. The mapping may be <ins>NULL</ins>
 (https://developer.android.com/reference/org/json/JSONObject.html#NULL).

Parameters

name	String

Returns

boolean

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

Parameters

name	String

Returns

boolean

keys
added in 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
<u>remove</u> (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

<u>Iterator</u>
 (https://developer.android.com/re
ference/java/util/Iterator.html)
<<u>String</u>
 (https://developer.android.com/re
ference/java/lang/String.html)
>

length
added in 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`

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

Returns

<u>JSONArray</u>
(https://developer.android.com/re
ference/org/json/JSONArray.html
)

numberToString

Encodes the number as a JSON string.

Parameters

`number`	`Number`: a finite value. May not be <u>NaNs</u> (https://developer.android.com/reference/java/lang/Double.html#isNaN()) or <u>`infinities`</u> (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

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

Parameters

name	String

Returns

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

optBoolean

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

Parameters

name	String

fallback	boolean

Returns

boolean

optBoolean

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

Parameters

name	String

Returns

boolean

optDouble

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

Parameters

name	String
fallback	double

Returns

double

optDouble

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

Parameters

name	String

Returns

double

optInt

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

Parameters

name	String
fallback	int

Returns

```
int
```

optInt

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

Parameters

name	String

Returns

int

optJSONArray

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

Parameters

name	String

Returns

JSONArray
 (https://developer.android.com/re
ference/org/json/JSONArray.html
)

optJSONObject

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

Parameters

name	String

Returns

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

optLong

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) (#lossy); use strings to transfer numbers via JSON.

Parameters

name	String

Returns

long

optLong

```
public long optLong (String (https://developer.android.com/reference/java/lang/String.html) na
                  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 <u>lossy</u>
 (#lossy); use strings to transfer numbers via JSON.

Parameters

name	String
fallback	long

Returns

long

optString

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

Parameters

name	String
fallback	String

Returns

<u>String</u> (https://developer.android.com/re ference/java/lang/String.html)

optString

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

`name`	String

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

`name`	String
`value`	**double**: a finite value. May not be `NaNs` (https://developer.android.com/reference/java/lang/Double.html#isNaN()) or `infinities` (https://developer.android.com/reference/java/lang/Double.html#isInfinite()) .

Returns

`JSONObject`	this object.

(https://developer.android.com/re
ference/org/json/JSONObject.ht
ml)

Throws

[JSONException](https://developer.android.com/re)
 (https://developer.android.com/re
ference/org/json/JSONException.
html)

put

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

Parameters

name	String
value	boolean

Returns

[JSONObject](https://developer.android.com/re) (https://developer.android.com/re ference/org/json/JSONObject.ht ml)	this object.

Throws

[JSONException](https://developer.android.com/re)
 (https://developer.android.com/re
ference/org/json/JSONException.
html)

put

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

Parameters

name	String
value	int

Returns

JSONObject (https://developer.android.com/reference/org/json/JSONObject.html)	this object.

Throws

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

put

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

Parameters

name	String
value	long

Returns

| JSONObject (https://developer.android.com/reference/org/json/JSONObject.html) | this object. |

Throws

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

Added in API level 1
put (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

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

Returns

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

Throws

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

putOpt
added in [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

name	String
value	Object

Returns

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

Throws

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

(https://developer.android.com/re
ference/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

`data`	`String`: the string to encode. Null will be interpreted as an empty string.

Returns

`String` (https://developer.android.com/re ference/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

`name`	`String`

Returns

`Object` (https://developer.android.com/remapping. ference/java/lang/Object.html)	the value previously mapped by `name`, or null if there was no such

toJSONArray

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

names	JSONArray

Returns

<u>JSONArray</u>
(https://developer.android.com/re
ference/org/json/JSONArray.html
)

Throws

<u>JSONException</u>
(https://developer.android.com/re
ference/org/json/JSONException.
html)

toString

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

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

Returns

<u>String</u>   a string representation of the object.
(https://developer.android.com/re
ference/java/lang/String.html)

toString

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

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

Parameters

`indentSpaces`	`int`: 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

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

o	Object

Returns

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

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