Class

# JSONEncoder

An object that encodes instances of a data type as JSON objects.

SDKs

iOS 7.0+

macOS 10.9+

tvOS 9.0+

watchOS 2.0+

Xcode 9.0+

## Declaration

```
class JSONEncoder
```

Documentation Foundation
Archives and Serialization
JSONEncoder
Language: Swift
API Changes: None

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JSON object, the type adopts Codable so that it's encodable as JSON using a `JSONEncoder` instance.

```
struct GroceryProduct: Codable {
    var name: String
    var points: Int
    var description: String?
}

let pear = GroceryProduct(name: "Pear", points: 250, description: "A ripe pear.")

let encoder = JSONEncoder()
encoder.outputFormatting = .prettyPrinted

let data = try encoder.encode(pear)
print(String(data: data, encoding: .utf8)!)

/* Prints:
 {
   "name" : "Pear",
   "points" : 250,
   "description" : "A ripe pear."
 }
*/
```

# Topics

## First Steps

`init()`

Creates a new, reusable JSON encoder with the default formatting settings and encoding strategies.

`func encode<T>(T) -> Data`

Returns a JSON-encoded representation of the value you supply.

## Customizing Encoding

`var outputFormatting: JSONEncoder.OutputFormatting`

A value that determines the readability, size, and element order of the encoded JSON object.

`struct JSONEncoder.OutputFormatting`

The output formatting options that determine the readability, size, and element order of an encoded JSON object.

`var keyEncodingStrategy: JSONEncoder.KeyEncodingStrategy`

A value that determines how a type's coding keys are encoded as JSON keys.

`enum JSONEncoder.KeyEncodingStrategy`

The values that determine how a type's coding keys are encoded as JSON keys.

`var userInfo: [CodingUserInfoKey : Any]`

A dictionary you use to customize the encoding process by providing contextual information.

## Encoding Dates

`var dateEncodingStrategy: JSONEncoder.DateEncodingStrategy`

The strategy used when encoding dates as part of a JSON object.

`enum JSONEncoder.DateEncodingStrategy`

The formatting strategies available for formatting dates when encoding a date as JSON.

### Encoding Raw Data

`var dataEncodingStrategy: JSONEncoder.DataEncodingStrategy`

The strategy that an encoder uses to encode raw data.

`enum JSONEncoder.DataEncodingStrategy`

The strategies for encoding raw data.

### Encoding Exceptional Numbers

`var nonConformingFloatEncodingStrategy: JSONEncoder.NonConformingFloatEncodingStrategy`

The strategy used by an encoder when it encounters exceptional floating-point values.

`enum JSONEncoder.NonConformingFloatEncodingStrategy`

The strategies for encoding nonconforming floating-point numbers, also known as IEEE 754 exceptional values.

## See Also

### JSON

{} Using JSON with Custom Types

Demonstrates approaches for encoding and decoding different kinds of JSON in Swift.

`class JSONDecoder`

An object that decodes instances of a data type from JSON objects.

`class JSONSerialization`

An object that converts between JSON and the equivalent Foundation objects.