

# Ruby - Strings - Encoding

In Ruby, strings are objects of the [String](#) class, which defines a powerful set of operations and methods for manipulating text (e.g., indexing, searching, modifying, etc.). Here are a few easy ways to create Strings:

```
my_string = "Hello." # create a string from a literal
my_empty_string = String.new # create an empty string
my_copied_string = String.new(my_string) # copy a string to a new variable
```

Until Ruby **1.8**, Strings were nothing but a collection of bytes. Data was indexed by byte count, size was in terms of number of bytes, and so on. Since Ruby **1.9**, Strings have additional [encoding](#) information attached to the bytes which provides information on how to interpret them. For example, this code:

```
str = "With ♥!"
print("My String's encoding: ", str.encoding.name)
print("\nMy String's size: ", str.size)
print("\nMy String's bytesize: ", str.bytesize)
```

produces this output:

```
My String's encoding: UTF-8
My String's size: 7
My String's bytesize: 9
```

You can make the following observations about the above code:

- The string literal creates an object which has several accessible methods.
- The string has attached *encoding* information indicating it's an [UTF-8](#) string.
- A String's *size* corresponds to the number of characters we see.
- A String's *bytesize* corresponds to the actual space taken by the characters in memory (the ♥ symbol requires **3** bytes instead of **1**).

Although **UTF-8** is the most popular (and recommended) encoding style for content, Ruby supports **100** other encodings (try `puts Encoding.list` for the full list). With this in mind, we should learn how to convert between different encodings.

## Task

In this challenge, we practice setting the encoding information for some string of text using Ruby's [Encoding](#) methods. Write a function named *transcode* which takes a **ISO-8859-1** encoded string as a parameter, converts it to an **UTF-8** encoded string, and returns the result.

## Input Format

Our hidden code checker will call your function, passing it an **ISO-8859-1** encoded string as an argument.

## Constraints

- Your function must be named *transcode*.

## Output Format

Your function must return an **UTF-8** encoded string.

