

Ruby Mapping for Enumerations

Ruby does not have an enumerated type, so a Slice [enumeration](#) is emulated using a Ruby class: the name of the Slice enumeration becomes the name of the Ruby class; for each enumerator, the class contains a constant with the [same name](#) as the enumerator. For example:

Slice

```
enum Fruit { Apple, Pear, Orange };
```

The generated Ruby class looks as follows:

Ruby

```
class Fruit
  include Comparable

  Apple = # ...
  Pear = # ...
  Orange = # ...

  def Fruit.from_int(val)

  def to_i

  def to_s

  def <=>(other)

  def hash

  # ...
end
```

The compiler generates a class constant for each enumerator that holds a corresponding instance of `Fruit`. The `from_int` class method returns an instance given its Slice value, while `to_i` returns the Slice value of an enumerator and `to_s` returns its Slice identifier.

Given the above definitions, we can use enumerated values as follows:

Ruby

```
f1 = Fruit::Apple
f2 = Fruit::Orange

if f1 == Fruit::Apple # Compare for equality
  # ...

if f1 < f2 # Compare two enums
  # ...

case f2
when Fruit::Orange
  puts "found Orange"
else
  puts "found #{f2.to_s}"
end
```

Comparison operators are available as a result of including `Comparable`, which means a program can compare enumerators according to their Slice values. Note that, when using [custom enumerator values](#), the order of enumerators by their Slice values may not match their order of declaration.

Suppose we modify the Slice definition to include a custom enumerator value:

Slice

```
enum Fruit { Apple, Pear = 3, Orange };
```

We can use `from_int` to examine the Slice values of the enumerators:

Ruby

```
Fruit::from_int(0) # Apple  
Fruit::from_int(1) # nil  
Fruit::from_int(3) # Pear  
Fruit::from_int(4) # Orange
```

See Also

- [Enumerations](#)
- [Ruby Mapping for Identifiers](#)
- [Ruby Mapping for Modules](#)
- [Ruby Mapping for Built-In Types](#)
- [Ruby Mapping for Structures](#)
- [Ruby Mapping for Sequences](#)
- [Ruby Mapping for Dictionaries](#)
- [Ruby Mapping for Constants](#)
- [Ruby Mapping for Exceptions](#)
- [Ruby Mapping for Interfaces](#)
- [Ruby Mapping for Operations](#)