

String_representation

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0.1 String representation

- By default, `str()` simply calls `repr()`
- But `repr()` does not call `str()`
- By default, `__format__()` calls `__str__()`

0.1.1 repr

- Exactness is more important than human-friendliness
- Suited for debugging
- Includes identifying information
- Generally best for logging

0.1.2 str

- Human-friendly representation of and object
- Suited to display information to the user
- Does not include identifying information

0.1.3 format

- Used in the string's format method
- Receives a parameter with the format specification

```
[1]: class Point2D:
      def __init__(self, x, y):
          self._x = x
          self._y = y

      def __str__(self):
          return '({}, {})'.format(self._x, self._y)

      def __repr__(self):
          return 'Point2D(x={},y={})'.format(self._x, self._y)

      def __format__(self, f):
          return '[Formatted point: {}, {}, {}]'.format(self._x, self._y, f)
```

```
[2]: p = Point2D(x=23, y=42)
      str(p)
```

```
[2]: '(23, 42)'
```

```
[3]: repr(p)
```

```
[3]: 'Point2D(x=23,y=42)'
```

```
[4]: print('{}'.format(p))
```

```
[Formatted point: 23, 42, ]
```

```
[5]: print('{:r4e}'.format(p))
```

```
[Formatted point: 23, 42, r4e]
```