TensorFlow   API r1.4

tf.substr

```
substr(
    input,
    pos,
    len,
    name=None
)
```

Defined in `tensorflow/python/ops/gen_string_ops.py`.

See the guide: Strings > Splitting

Return substrings from `Tensor` of strings.

For each string in the input `Tensor`, creates a substring starting at index `pos` with a total length of `len`.

If `len` defines a substring that would extend beyond the length of the input string, then as many characters as possible are used.

If `pos` is negative or specifies a character index larger than any of the input strings, then an `InvalidArgumentError` is thrown.

`pos` and `len` must have the same shape, otherwise a `ValueError` is thrown on Op creation.

NOTE: `Substr` supports broadcasting up to two dimensions. More about broadcasting here

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Examples

Using scalar `pos` and `len`:

```
input = [b'Hello', b'World']
position = 1
length = 3

output = [b'ell', b'orl']
```

Using `pos` and `len` with same shape as `input`:

```
input = [[b'ten', b'eleven', b'twelve'],
         [b'thirteen', b'fourteen', b'fifteen'],
         [b'sixteen', b'seventeen', b'eighteen']]
position = [[1, 2, 3],
            [1, 2, 3],
            [1, 2, 3]]
length =   [[2, 3, 4],
            [4, 3, 2],
            [5, 5, 5]]

output = [[b'en', b'eve', b'lve'],
          [b'hirt', b'urt', b'te'],
          [b'ixtee', b'vente', b'hteen']]
```

Broadcasting `pos` and `len` onto `input`:

```
input = [[b'ten', b'eleven', b'twelve'],
         [b'thirteen', b'fourteen', b'fifteen'],
         [b'sixteen', b'seventeen', b'eighteen'],
         [b'nineteen', b'twenty', b'twentyone']]
position = [1, 2, 3]
length =   [1, 2, 3]

output = [[b'e', b'ev', b'lve'],
          [b'h', b'ur', b'tee'],
          [b'i', b've', b'hte'],
          [b'i', b'en', b'nty']]
```

Broadcasting `input` onto `pos` and `len` :

```
input = b'thirteen'
position = [1, 5, 7]
length =   [3, 2, 1]

output = [b'hir', b'ee', b'n']
```

Args:

- `input` : A **Tensor** of type `string` . Tensor of strings
- `pos` : A **Tensor** . Must be one of the following types: `int32` , `int64` . Scalar defining the position of first character in each substring
- `len` : A **Tensor** . Must have the same type as `pos` . Scalar defining the number of characters to include in each substring
- `name` : A name for the operation (optional).

Returns:

A **Tensor** of type `string` . Tensor of substrings

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