tf.cumprod

```
cumprod(
    x,
    axis=0,
    exclusive=False,
    reverse=False,
    name=None
)
```

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

See the guide: Math > Scan

Compute the cumulative product of the tensor `x` along `axis` .

By default, this op performs an inclusive cumprod, which means that the first element of the input is identical to the first element of the output:

```
tf.cumprod([a, b, c])  # [a, a * b, a * b * c]
```

By setting the `exclusive` kwarg to `True` , an exclusive cumprod is performed instead:

```
tf.cumprod([a, b, c], exclusive=True)  # [1, a, a * b]
```

By setting the `reverse` kwarg to `True` , the cumprod is performed in the opposite direction:

```
tf.cumprod([a, b, c], reverse=True)  # [a * b * c, b * c, c]
```

This is more efficient than using separate `tf.reverse` ops. The `reverse` and `exclusive` kwargs can also be combined:

```
tf.cumprod([a, b, c], exclusive=True, reverse=True)  # [b * c, c, 1]
```

Args:

- `x` : A `Tensor` . Must be one of the following types: `float32` , `float64` , `int64` , `int32` , `uint8` , `uint16` , `int16` , `int8` , `complex64` , `complex128` , `qint8` , `quint8` , `qint32` , `half` .
- `axis` : A `Tensor` of type `int32` (default: 0). Must be in the range `[-rank(x), rank(x))` .
- `exclusive` : If `True` , perform exclusive cumprod.
- `reverse` : A `bool` (default: False).
- `name` : A name for the operation (optional).

Returns:

A `Tensor` . Has the same type as `x` .

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