tf.sparse_reduce_max

```
sparse_reduce_max(
    sp_input,
    axis=None,
    keep_dims=False,
    reduction_axes=None
)
```

Defined in **tensorflow/python/ops/sparse_ops.py** .

Computes the max of elements across dimensions of a SparseTensor.

This Op takes a SparseTensor and is the sparse counterpart to `tf.reduce_max()` . In particular, this Op also returns a dense `Tensor` instead of a sparse one.

Reduces `sp_input` along the dimensions given in `reduction_axes` . Unless `keep_dims` is true, the rank of the tensor is reduced by 1 for each entry in `reduction_axes` . If `keep_dims` is true, the reduced dimensions are retained with length 1.

If `reduction_axes` has no entries, all dimensions are reduced, and a tensor with a single element is returned. Additionally, the axes can be negative, similar to the indexing rules in Python.

For example:

```
# 'x' represents [[1, ?, 2]
#                 [?, 3, ?]]
# where ? is implicitly-zero.
tf.sparse_reduce_max(x) ==> 3
tf.sparse_reduce_max(x, 0) ==> [1, 3, 2]
tf.sparse_reduce_max(x, 1) ==> [2, 3]  # Can also use -1 as the axis.
tf.sparse_reduce_max(x, 1, keep_dims=True) ==> [[2], [3]]
tf.sparse_reduce_max(x, [0, 1]) ==> 3
```

Args:

- `sp_input` : The SparseTensor to reduce. Should have numeric type.
- `axis` : The dimensions to reduce; list or scalar. If `None` (the default), reduces all dimensions.
- `keep_dims` : If true, retain reduced dimensions with length 1.
- `reduction_axes` : Deprecated name of axis.

Returns:

The reduced Tensor.

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