

## tf.sparse\_to\_indicator

```
sparse_to_indicator(  
    sp_input,  
    vocab_size,  
    name=None  
)
```

Defined in [tensorflow/python/ops/sparse\\_ops.py](#).

See the guide: [Sparse Tensors > Conversion](#)

Converts a **SparseTensor** of ids into a dense bool indicator tensor.

The last dimension of **sp\_input.indices** is discarded and replaced with the values of **sp\_input**. If **sp\_input.dense\_shape** = **[D0, D1, ..., Dn, K]**, then **output.shape** = **[D0, D1, ..., Dn, vocab\_size]**, where

```
output[d_0, d_1, ..., d_n, sp_input[d_0, d_1, ..., d_n, k]] = True
```

and False elsewhere in **output**.

For example, if **sp\_input.dense\_shape** = **[2, 3, 4]** with non-empty values:

```
[0, 0, 0]: 0  
[0, 1, 0]: 10  
[1, 0, 3]: 103  
[1, 1, 2]: 150  
[1, 1, 3]: 149  
[1, 1, 4]: 150  
[1, 2, 1]: 121
```

and **vocab\_size** = **200**, then the output will be a **[2, 3, 200]** dense bool tensor with False everywhere except at positions

```
(0, 0, 0), (0, 1, 10), (1, 0, 103), (1, 1, 149), (1, 1, 150),  
(1, 2, 121).
```

Note that repeats are allowed in the input **SparseTensor**. This op is useful for converting **SparseTensor** s into dense formats for compatibility with ops that expect dense tensors.

The input **SparseTensor** must be in row-major order.

## Args:

- **sp\_input**: A **SparseTensor** with **values** property of type **int32** or **int64**.
- **vocab\_size**: A scalar **int64** Tensor (or Python int) containing the new size of the last dimension, **all(0 <= sp\_input.values < vocab\_size)**.
- **name**: A name prefix for the returned tensors (optional)

## Returns:

A dense bool indicator tensor representing the indices with specified value.

Raises:

- `TypeError` : If `sp_input` is not a `SparseTensor` .

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