

tf.unique

```
unique(  
    x,  
    out_idx=tf.int32,  
    name=None  
)
```

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

See the guide: [Math > Sequence Comparison and Indexing](#)

Finds unique elements in a 1-D tensor.

This operation returns a tensor `y` containing all of the unique elements of `x` sorted in the same order that they occur in `x`. This operation also returns a tensor `idx` the same size as `x` that contains the index of each value of `x` in the unique output `y`. In other words:

```
y[idx[i]] = x[i] for i in [0, 1, ..., rank(x) - 1]
```

For example:

```
# tensor 'x' is [1, 1, 2, 4, 4, 4, 7, 8, 8]  
y, idx = unique(x)  
y ==> [1, 2, 4, 7, 8]  
idx ==> [0, 0, 1, 2, 2, 2, 3, 4, 4]
```

Args:

- `x`: A `Tensor`. 1-D.
- `out_idx`: An optional `tf.DType` from: `tf.int32`, `tf.int64`. Defaults to `tf.int32`.
- `name`: A name for the operation (optional).

Returns:

A tuple of `Tensor` objects (`y`, `idx`).

- `y`: A `Tensor`. Has the same type as `x`. 1-D.
- `idx`: A `Tensor` of type `out_idx`. 1-D.

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