

tf.setdiff1d

```
setdiff1d(  
    x,  
    y,  
    index_dtype=tf.int32,  
    name=None  
)
```

Defined in [tensorflow/python/ops/array_ops.py](#).

See the guides: [Math > Sequence Comparison and Indexing](#), [Tensor Transformations > Slicing and Joining](#)

Computes the difference between two lists of numbers or strings.

Given a list **x** and a list **y**, this operation returns a list **out** that represents all values that are in **x** but not in **y**. The returned list **out** is sorted in the same order that the numbers appear in **x** (duplicates are preserved). This operation also returns a list **idx** that represents the position of each **out** element in **x**. In other words:

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

For example, given this input:

```
x = [1, 2, 3, 4, 5, 6]  
y = [1, 3, 5]
```

This operation would return:

```
out ==> [2, 4, 6]  
idx ==> [1, 3, 5]
```

Args:

- **x**: A **Tensor**. 1-D. Values to keep.
- **y**: A **Tensor**. Must have the same type as **x**. 1-D. Values to remove.
- **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 (out, idx).

- **out**: A **Tensor**. Has the same type as **x**. 1-D. Values present in **x** but not in **y**.
- **idx**: A **Tensor** of type **out_idx**. 1-D. Positions of **x** values preserved in **out**.

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