

Extract non-contiguous slices from the first dimension

`tf.gather(<params>,<indices>,<axis>)`

- **params**: A tensor you want to extract values from.
- **indices**: A tensor specifying the indices pointing into **params**
- **Axis**: axis to apply the operation



```
x = tf.constant([3, 5, 1, 6, 8, 7])  
tf.gather(x, [2])
```

```
<tf.Tensor: shape=(1,), dtype=int32, numpy=array([1])>
```

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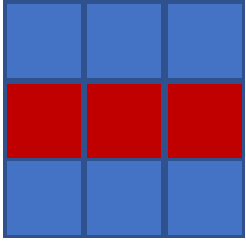
```
x = tf.constant([3, 5, 1, 6, 8, 7])  
tf.gather(x, [2])
```

```
<tf.Tensor: shape=(1,), dtype=int32, numpy=array([1])>
```

```
x = tf.constant([3, 5, 1, 6, 8, 7])  
tf.gather(x, [0,3])
```

```
<tf.Tensor: shape=(2,), dtype=int32, numpy=array([3, 6])>
```

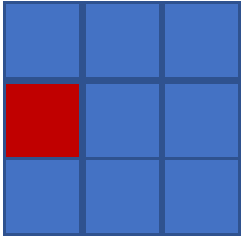

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```
x = tf.constant([ [10.0, 11.0, 12.0],  
                 [20.0, 21.0, 22.0],  
                 [30.0, 31.0, 32.0]])  
y = tf.gather(x, indices=[1])  
print(y)
```

```
tf.Tensor([[20. 21. 22.]], shape=(1, 3), dtype=float32)
```

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```
x = tf.constant([ [10.0, 11.0, 12.0],  
                 [20.0, 21.0, 22.0],  
                 [30.0, 31.0, 32.0]])  
y = tf.gather(x, indices=[1])  
z = tf.gather(y, indices=[0], axis=1)  
print(z)
```

```
tf.Tensor([[20.]], shape=(1, 1), dtype=float32)
```