tf.nn.max_pool_with_argmax

```
max_pool_with_argmax(
    input,
    ksize,
    strides,
    padding,
    Targmax=tf.int64,
    name=None
)
```

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

See the guide: Neural Network > Pooling

Performs max pooling on the input and outputs both max values and indices.

The indices in `argmax` are flattened, so that a maximum value at position `[b, y, x, c]` becomes flattened index `((b * height + y) * width + x) * channels + c`.

The indices returned are always in `[0, height) x [0, width)` before flattening, even if padding is involved and the mathematically correct answer is outside (either negative or too large). This is a bug, but fixing it is difficult to do in a safe backwards compatible way, especially due to flattening.

Args:

- `input`: A `Tensor`. Must be one of the following types: `float32`, `float64`, `int32`, `int64`, `uint8`, `int16`, `int8`, `uint16`, `half`. 4-D with shape `[batch, height, width, channels]`. Input to pool over.
- `ksize`: A list of `ints` that has length `>= 4`. The size of the window for each dimension of the input tensor.
- `strides`: A list of `ints` that has length `>= 4`. The stride of the sliding window for each dimension of the input tensor.
- `padding`: A `string` from: `"SAME", "VALID"`. The type of padding algorithm to use.
- `Targmax`: An optional `tf.DType` from: `tf.int32, tf.int64`. Defaults to `tf.int64`.
- `name`: A name for the operation (optional).

Returns:

A tuple of `Tensor` objects (output, argmax).

- `output`: A `Tensor`. Has the same type as `input`. The max pooled output tensor.
- `argmax`: A `Tensor` of type `Targmax`. 4-D. The flattened indices of the max values chosen for each output.

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