tf.contrib.losses.softmax_cross_entropy

```
softmax_cross_entropy(
    logits,
    onehot_labels,
    weights=1.0,
    label_smoothing=0,
    scope=None
)
```

Defined in `tensorflow/contrib/losses/python/losses/loss_ops.py`.

See the guide: Losses (contrib) > Loss operations for use in neural networks.

Creates a cross-entropy loss using tf.nn.softmax_cross_entropy_with_logits. (deprecated)

THIS FUNCTION IS DEPRECATED. It will be removed after 2016-12-30. Instructions for updating: Use tf.losses.softmax_cross_entropy instead. Note that the order of the logits and labels arguments has been changed.

`weights` acts as a coefficient for the loss. If a scalar is provided, then the loss is simply scaled by the given value. If `weights` is a tensor of size [`batch_size`], then the loss weights apply to each corresponding sample.

If `label_smoothing` is nonzero, smooth the labels towards 1/num_classes: new_onehot_labels = onehot_labels * (1 - label_smoothing) + label_smoothing / num_classes

Args:

- `logits`: [batch_size, num_classes] logits outputs of the network .
- `onehot_labels`: [batch_size, num_classes] one-hot-encoded labels.
- `weights`: Coefficients for the loss. The tensor must be a scalar or a tensor of shape [batch_size].
- `label_smoothing`: If greater than 0 then smooth the labels.
- `scope`: the scope for the operations performed in computing the loss.

Returns:

A scalar `Tensor` representing the mean loss value.

Raises:

- `ValueError`: If the shape of `logits` doesn't match that of `onehot_labels` or if the shape of `weights` is invalid or if `weights` is None.

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