tf.contrib.metrics.streaming_mean

```
streaming_mean(
    values,
    weights=None,
    metrics_collections=None,
    updates_collections=None,
    name=None
)
```

Defined in `tensorflow/contrib/metrics/python/ops/metric_ops.py`.

See the guide: Metrics (contrib) > Metric `Ops`

Computes the (weighted) mean of the given values.

The `streaming_mean` function creates two local variables, `total` and `count` that are used to compute the average of `values`. This average is ultimately returned as `mean` which is an idempotent operation that simply divides `total` by `count`.

For estimation of the metric over a stream of data, the function creates an `update_op` operation that updates these variables and returns the `mean`. `update_op` increments `total` with the reduced sum of the product of `values` and `weights`, and it increments `count` with the reduced sum of `weights`.

If `weights` is `None`, weights default to 1. Use weights of 0 to mask values.

Args:

- `values`: A `Tensor` of arbitrary dimensions.
- `weights`: `Tensor` whose rank is either 0, or the same rank as `values`, and must be broadcastable to `values` (i.e., all dimensions must be either `1`, or the same as the corresponding `values` dimension).
- `metrics_collections`: An optional list of collections that `mean` should be added to.
- `updates_collections`: An optional list of collections that `update_op` should be added to.
- `name`: An optional variable_scope name.

Returns:

- `mean`: A `Tensor` representing the current mean, the value of `total` divided by `count`.
- `update_op`: An operation that increments the `total` and `count` variables appropriately and whose value matches `mean`.

Raises:

- `ValueError`: If `weights` is not `None` and its shape doesn't match `values`, or if either `metrics_collections` or `updates_collections` are not a list or tuple.

Last updated November 2, 2017.