tf.metrics.precision_at_thresholds

```
precision_at_thresholds(
    labels,
    predictions,
    thresholds,
    weights=None,
    metrics_collections=None,
    updates_collections=None,
    name=None
)
```

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

Computes precision values for different `thresholds` on `predictions`.

The `precision_at_thresholds` function creates four local variables, `true_positives`, `true_negatives`, `false_positives` and `false_negatives` for various values of thresholds. `precision[i]` is defined as the total weight of values in `predictions` above `thresholds[i]` whose corresponding entry in `labels` is `True`, divided by the total weight of values in `predictions` above `thresholds[i]` (`true_positives[i] / (true_positives[i] + false_positives[i])`).

For estimation of the metric over a stream of data, the function creates an `update_op` operation that updates these variables and returns the `precision`.

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

Args:

- `labels`: The ground truth values, a `Tensor` whose dimensions must match `predictions`. Will be cast to `bool`.
- `predictions`: A floating point `Tensor` of arbitrary shape and whose values are in the range `[0, 1]`.
- `thresholds`: A python list or tuple of float thresholds in `[0, 1]`.
- `weights`: Optional `Tensor` whose rank is either 0, or the same rank as `labels`, and must be broadcastable to `labels` (i.e., all dimensions must be either `1`, or the same as the corresponding `labels` dimension).
- `metrics_collections`: An optional list of collections that `auc` 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:

- `precision`: A float `Tensor` of shape `[len(thresholds)]`.
- `update_op`: An operation that increments the `true_positives`, `true_negatives`, `false_positives` and `false_negatives` variables that are used in the computation of `precision`.

Raises:

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

Last updated November 2, 2017.