tf.contrib.lookup.index_table_from_tensor

```
index_table_from_tensor(
    mapping,
    num_oov_buckets=0,
    default_value=-1,
    hasher_spec=tf.contrib.lookup.FastHashSpec,
    dtype=tf.string,
    name=None
)
```

Defined in `tensorflow/contrib/lookup/lookup_ops.py`.

Returns a lookup table that converts a string tensor into int64 IDs.

This operation constructs a lookup table to convert tensor of strings into int64 IDs. The mapping can be initialized from a string `mapping` 1-D tensor where each element is a key and corresponding index within the tensor is the value.

Any lookup of an out-of-vocabulary token will return a bucket ID based on its hash if `num_oov_buckets` is greater than zero. Otherwise it is assigned the `default_value`. The bucket ID range is `[mapping size, mapping size + num_oov_buckets - 1]`.

The underlying table must be initialized by calling `tf.tables_initializer.run()` or `table.init.run()` once.

Elements in `mapping` cannot have duplicates, otherwise when executing the table initializer op, it will throw a `FailedPreconditionError`.

Sample Usages:

```
mapping_strings = tf.constant(["emerson", "lake", "palmer"])
table = tf.contrib.lookup.index_table_from_tensor(
    mapping=mapping_strings, num_oov_buckets=1, default_value=-1)
features = tf.constant(["emerson", "lake", "and", "palmer"])
ids = table.lookup(features)
...
tf.tables_initializer().run()

ids.eval()  ==> [0, 1, 4, 2]
```

Args:

- `mapping`: A 1-D `Tensor` that specifies the mapping of keys to indices. The type of this object must be castable to `dtype`.
- `num_oov_buckets`: The number of out-of-vocabulary buckets.
- `default_value`: The value to use for out-of-vocabulary feature values. Defaults to -1.
- `hasher_spec`: A `HasherSpec` to specify the hash function to use for assignment of out-of-vocabulary buckets.
- `dtype`: The type of values passed to `lookup`. Only string and integers are supported.
- `name`: A name for this op (optional).

Returns:

The lookup table to map an input `Tensor` to index `int64` `Tensor`.

Raises:

- `ValueError`: If `mapping` is invalid.
- `ValueError`: If `num_oov_buckets` is negative.

Last updated November 2, 2017.