

## tf.contrib.layers.bow\_encoder

```
bow_encoder(  
    ids,  
    vocab_size,  
    embed_dim,  
    sparse_lookup=True,  
    initializer=None,  
    regularizer=None,  
    trainable=True,  
    scope=None,  
    reuse=None  
)
```

Defined in [tensorflow/contrib/layers/python/layers/encoders.py](#).

Maps a sequence of symbols to a vector per example by averaging embeddings.

## Args:

- **ids**: `[batch_size, doc_length]` `Tensor` or `SparseTensor` of type `int32` or `int64` with symbol ids.
- **vocab\_size**: Integer number of symbols in vocabulary.
- **embed\_dim**: Integer number of dimensions for embedding matrix.
- **sparse\_lookup**: `bool`, if `True`, converts ids to a `SparseTensor` and performs a sparse embedding lookup. This is usually faster, but not desirable if padding tokens should have an embedding. Empty rows are assigned a special embedding.
- **initializer**: An initializer for the embeddings, if `None` default for current scope is used.
- **regularizer**: Optional regularizer for the embeddings.
- **trainable**: If `True` also add variables to the graph collection `GraphKeys.TRAINABLE_VARIABLES` (see `tf.Variable`).
- **scope**: Optional string specifying the variable scope for the op, required if `reuse=True`.
- **reuse**: If `True`, variables inside the op will be reused.

## Returns:

Encoding `Tensor` `[batch_size, embed_dim]` produced by averaging embeddings.

## Raises:

- **ValueError**: If `embed_dim` or `vocab_size` are not specified.

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