

tf.contrib.framework.variable

```
variable(  
    name,  
    shape=None,  
    dtype=None,  
    initializer=None,  
    regularizer=None,  
    trainable=True,  
    collections=None,  
    caching_device=None,  
    device=None,  
    partitioner=None,  
    custom_getter=None,  
    use_resource=None  
)
```

Defined in [tensorflow/contrib/framework/python/ops/variables.py](#).

See the guide: [Framework \(contrib\) > Variables](#)

Gets an existing variable with these parameters or creates a new one.

Args:

- **name** : the name of the new or existing variable.
- **shape** : shape of the new or existing variable.
- **dtype** : type of the new or existing variable (defaults to **DT_FLOAT**).
- **initializer** : initializer for the variable if one is created.
- **regularizer** : a (Tensor -> Tensor or None) function; the result of applying it on a newly created variable will be added to the collection `GraphKeys.REGULARIZATION_LOSSES` and can be used for regularization.
- **trainable** : If **True** also add the variable to the graph collection `GraphKeys.TRAINABLE_VARIABLES` (see `tf.Variable`).
- **collections** : A list of collection names to which the Variable will be added. If None it would default to `tf.GraphKeys.GLOBAL_VARIABLES`.
- **caching_device** : Optional device string or function describing where the Variable should be cached for reading. Defaults to the Variable's device.
- **device** : Optional device to place the variable. It can be a string or a function that is called to get the device for the variable.
- **partitioner** : Optional callable that accepts a fully defined **TensorShape** and dtype of the **Variable** to be created, and returns a list of partitions for each axis (currently only one axis can be partitioned).
- **custom_getter** : Callable that allows overwriting the internal `get_variable` method and has to have the same signature.
- **use_resource** : If **True** use a `ResourceVariable` instead of a `Variable`.

Returns:

The created or existing variable.

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