**Multihead Network:**

A multi-head deep learning model with multiple classification or output heads. Each of the output **heads** has a different number of output features corresponding to the number of categories in each label.

**Two branch network (Two Branch Neural Networks):**

Two branch network use for image matching task. It have two network. First embedding network and matching network structure.

* Embedding network:

Embedding network learn an explicit shared latent embedding space with a maximum-margin ranking loss and novel neighborhood constraints. Compared to standard triplet sampling, we perform improved neighborhood sampling that takes neighborhood information into consideration while constructing mini-batches.

* Matching network:

Referred to as a similarity network, fuses the two branches via element-wise product and is trained with regression loss to directly predict a similarity score.

**Inception block:**

An **Inception Module is** an image model block that aims to approximate an optimal local sparse structure in a CNN. Put simply, it allows for us to use multiple types of filter size, instead of being restricted to a single filter size, in a single image block, which we then concatenate and pass onto the next layer.