1. GAN
   1. GANs related to human emotions / description of faces (etc)
      1. GAN [link](https://papers.nips.cc/paper/5423-generative-adversarial-nets.pdf)
         * Goodfellow *et al* introduced Generative Adversarial Networks (GANs) to generate or translate images which consists of two modules: a generator and a discriminator. The generator learns to generate fake images while the discriminator learns to distinguish between real and fake images.  Through this competition, both modules increase their performances after several iterations and this idea was applied predominantly in various fields especially in facial image generation and translation.
      2. ExprGAN [link](https://arxiv.org/pdf/1709.03842.pdf)
         * Ding *et al* proposed ExprGAN to solve low resolution of synthetic images and the required paired training data.
      3. StarGAN [link](https://arxiv.org/pdf/1711.09020.pdf)
         * Choi *et al* overcame the difficulty of putting multiple attributes in one generator by proposing StarGan. Due to this fact, they were able to increase the performance in generating multi-label images.
      4. These GANs, however, are vulnerable to noisy labels. With wrong labels, GANs produce samples with poor quality[RCGAN]. In this regard, we are trying to find the effectiveness of our system by generating images using the labels of our system and check the performance of our labeling system via reflecting the satisfaction of users about the images generated by GANs.