我们期望让成员分为两组从两个不同的角度对数据进行多任务学习。第一个角度是以特征为基础的多任务学习。我们计划从特征选择方法开始，即假设这些不同的任务共享一些特征（  
经过正则化）看看是否有好的表现，接着我们会尝试利用神经网络模型，即假设不同的任务共享隐藏层，然后不同的任务通过不同的输出层进行结果输出。如果还有时间的话我们会尝试深层神经网络和交叉针方法。

第二个角度是以参数为基础的多任务学习，我们可以通过不同的方法探索11个任务是不是可以被分为更小的一些聚类，在聚类中也许任务会共享更多的特征。

最后也许可以把两个部分的多任务学习结合起来

We aim to divide our members into two groups to conduct multi-task learning on the data from two distinct perspectives. The first perspective is feature-based multi-task learning. Our plan starts with the feature selection approach, which assumes that different tasks share some features (regularized) to see if there is a good performance. Following that, we will explore the use of neural network models, positing that different tasks share hidden layers, with the results for different tasks being output through distinct output layers. If time allows, we will attempt deep neural network models and the cross-stitch approach.

The second perspective focuses on parameter-based multi-task learning. Here, we will explore whether the 11 tasks can be divided into smaller clusters through different methods, where tasks within a cluster may share more features.

Ultimately, we may consider combining the approaches from both feature-based and parameter-based multi-task learning sections to enhance the learning outcome.