Report

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Result:

```
(kaldi) root@5fd7b1b0b23f:/opt/kaldi/dsp-hw2-1# bash 4-test.sh
Converting acoustic models to HTK format
    viterbi/mono/final.mmf viterbi/mono/tiedlist exist , skipping ...
Generating results for test set with acoustic weight = [ 0.17 ]
    output -> viterbi/mono/test.mlf
    log -> viterbi/mono/log/latgen.test.log
    result -> viterbi/mono/test.rec
    accuracy -> [ 96.09 ] %

Execution time for whole script = 00 hours 00 mins 11 secs
```

First, I modified number of iterations of training, scale_opts and test_beam, but get only about 4% improvement of accuracy. Then, decreased opt_acwt in 4-test.sh to 0.17, and got about 88% accuracy. However, after got 88%, I tried to modify the parameters mentioned above but got no improvement. Finally, I tried a larger value for the number of initial Gaussians and target Gaussians by setting numgauss 100 and totgauss to 1000, and got 95% accuracy.

Parameters for 96.09% accuracy:

Train:

```
### parameters that you can modify
numiters=20                              # Number of iterations of training
maxiterinc=15                             # Last iter to increase #Gauss on.
numgauss=200                               # Initial num-Gauss (must be more than #states=3*phones).
totgauss=5000                         # Target #Gaussians.
incgauss=$[($totgauss-$numgauss)/$maxiterinc] # per-iter increment for #Gauss
realign_iters="1 2 3 4 5";
scale_opts="--transition-scale=0.3 --acoustic-scale=0.6 --self-loop-scale=0.5"
###
```

Test:

```
### parameters that you can modify
opt_acwt=0.17
test_beam=20.0
###
```