```
no warnings "all";
my %good=();
my %goodProb =();
open(good,"good.txt") or die $!;
while(<good>) {
        chomp;
        @values=split("\t",$_);
        $good{$values[0]}=$values[1];
}
close(good);
my %bad=();
my %badProb=();
open(bad,"bad.txt") or die $!;
while(<bad>) {
        chomp;
        @values=split("\t",$_);
        $bad{$values[0]}=$values[1];
}
close(bad);
my %voca=();
open(voca,"vocabulary.txt") or die $!;
while(<voca>){
        chomp;
        my $goodProb=0;
        if(exists($good{$_})){
                #print "$good{$_}\n";
                $goodProb=($good{$_})/(216178+685);
                #print "$_\tGood\t$goodProb\n";
                $goodProb{$_}=$goodProb;
        }else{
        $goodProb=(1)/(216178+685);
                                                     # Add one smoothing
                #print "$_\tGood\t$goodProb\n";
                $goodProb{$_}=$goodProb;
        }
        my $badProb=0;
        if(exists($bad{$_})){
                #print "$bad{$_}\n";
                $badProb=($bad{$_})/(44575+685);
                #print "$_\tbad\t$badProb\n";
                $badProb{$_}=$badProb;
        }else{
        $badProb=(1)/(44575+685);
                                                 #Add one smoothing
```

```
#print "$_\tbad\t$badProb\n";
                $badProb{$_}=$badProb;
        }
}
close(voca);
$isGood=11119/13842;
$isBad=2723/13842;
my $dir = "test";
opendir DIR, $dir or die "cannot open dir $dir: $!";
my @files= readdir DIR;
closedir DIR;
print "File\tACTUAL\tPREDICTED\tposProb\n";
foreach(@files){
    $isGood=11119/13842;
    $isBad=2723/13842;
        $filename="./test/$_";
        @file = split("-",$_);
        if($file[0] eq "movies" & $file[1] eq "1"){
                print "$filename\t";
                print "negative\t";
                open(file,"$filename") or die $!;
                $review=<file>;
                @words=split('',$review);
                        foreach(@words){
                =\sim tr/a-zA-Z//dc;
                $_=lc $_;
                if(exists($goodProb{$_})){$isGood = $isGood* $goodProb{$_};}
                if(exists($badProb{$_})){$isBad = $isBad *$badProb{$_};}
                        }
                        #print "$isGood\n";
                        #print "$isBad\n";
                        if($isGood > $isBad){
                                 print "positive\t";
                        }else{
                                print "negative\t";}
                close(file);
        print "$isGood\n";
```

```
}elsif($file[0] eq "movies" & $file[1] eq "5"){
    $isGood=11119/13842;
    $isBad=2723/13842;
        print "$filename\t";
        print "positive\t";
        open(file,"$filename") or die $!;
        $review=<file>;
        @words=split(' ',$review);
        foreach(@words){
        =\sim tr/a-zA-Z//dc;
        $_=lc $_;
        if(exists($goodProb{$_})){$isGood = $isGood* $goodProb{$_};}
        if(exists($badProb{$_})){$isBad = $isBad *$badProb{$_};}
                        }
    #print "$isGood\t";
    #print "$isBad\n";
        if($isGood > $isBad){
                print "positive\t";
        }else{
                print "negative\t";
}
                print "$isGood\n";
                }
}
```