MATLAB CODE for naïve Bayes:

data={'A','great','game';'The','election','over';'Very','clean','match';'clean','forgettable','game';'It','close','election'}

data=lower(data);

stop\_words={'a','the', 'was', 'over' , 'very', 'it', 'but'};

[row,column]=size(data);

y={'sports','notsports','sports','sports','notsports',}

total\_sports1=0;

total\_notsports1=0;

for i=1:length(y)

if(strcmp('sports',y{i}))

total\_sports1=total\_sports1+1

else

total\_notsports1=total\_notsports1+1

end

end

words={}

h=1;

v=1;

for i=1:row

for j=1:column

d=data{i,j}

c=0;

for k=1:row

for l=1:column

d1=data{i,j}

if(d==d1)

words{h,1}=d;

end

end

if(d1=='1')

words{h,2}=1

words{h,3}=0

h=h+1;

else

words{h,2}=0

words{h,3}=1

h=h+1;

end;

end

end

end

for i=1:length(data)

x=data{i,1}

for j=1:length(stop\_words)

q=stop\_words{j}

k=1;

n=length(x)

while(k<=n)

l=length(q);

k

if((x(k)==' ')||(k==1))

if(x(k)==' ')

k

mn=x(k:k+l-1)

mp=q(1:l)

if(mn==mp)

x(k:k+l)=[]

n=length(x)

k=k+1;

else

k=k+1;

continue;

end;

else

k=k+1;

continue;

end;

else

k=k+1;

end;

end;

end;

data{i,1}=x

end;

words={'great' ,'1', '0'; 'game', '2', '0'; 'election' ,'0', '2'; 'clean', '2', '0'; 'match', '1', '0'; 'forgettable', '1', '0'; 'close' ,'0', '1'}

total\_sports=7;

total\_notsports=3;

total=row;

P\_sports=total\_sports1/total;

P\_notsports=total\_notsports1/total;

total=5;

l=[];

w=[];

l1=[];

w1=[];

for i=1:length(words)

w(i)=str2num(words{i,2})/total\_sports;

l(i)=str2num(words{i,3})/total\_notsports;

w1(i)=(str2num(words{i,2})+1)/(total\_sports+total\_sports);

l1(i)=(str2num(words{i,3})+1)/(total\_notsports+total\_sports);

end;

test={'close','game'};

cv=[];

u=1;

for p=1:length(words)

for o=1:length(test)

if(strcmp(words{p,1},test{o}))

cv(u)=p;

u=u+1;

end

end

end

p=1;

p1=1;

for q=1:length(cv)

p=p\*w1(cv(q));

p1=p1\*l1(cv(q));

end;

p=p\*P\_sports

p1=p1\*P\_notsports

if(p>p1)

disp('sports')

else

disp('not sports')

end;

OUTPUT:

p = 0.0092

p1 = 0.0080

For "a close game":sports