choice1=menu('location options',{'WIP PORTICO','Bhabha Point','South Gate','PRAFUL','Dhruva','Cirus','Mod. Labs','Computer Security','RLG Main Gate','RLG Back Gate','IF3','RUMP','NG Security','Mod. Lab C','CIRUS Jetty','Hall#7','Sea Side Security','CC Security','PP Security'});

choice2=menu('graph options',{'line graph','histogram','bar graph'});

choice3=menu('choose date',{'1','2','3','4','5','6','7','8','9','10','11','12','13','14','15','16','17','18','19','20','21','22','23','24','25','26','27','28','29','30','31'});

prompt1={'enter start time in HH:MM'};

ans1=inputdlg(prompt1,'input');

prompt2={'enter end time in HH:MM'};

ans2=inputdlg(prompt2,'input');

if(choice1 == 1)

 loc='WIP\_Portico';

elseif(choice1 == 2)

 loc='Bhabha\_Point';

elseif(choice1 == 3)

 loc='South\_Gate';

elseif(choice1 == 4)

 loc='PRAFUL';

elseif(choice1 == 5)

 loc='Dhruva';

elseif(choice1 == 6)

 loc='Cirus';

elseif(choice1 == 7)

 loc='Mod.\_Labs';

elseif(choice1 == 8)

 loc='Computer\_Security';

elseif(choice1 == 9)

 loc='RLG\_Main\_Gate';

elseif(choice1 == 10)

 loc='RLG\_Back\_Gate';

elseif(choice1 == 11)

 loc='IF3';

elseif(choice1 == 12)

 loc='RUMP';

elseif(choice1 == 13)

 loc='NG\_Security';

elseif(choice1 == 14)

 loc='Mod.\_Lab\_C';

elseif(choice1 == 15)

 loc='CIRUS\_Jetty';

elseif(choice1 == 16)

 loc='Hall#7';

elseif(choice1 == 17)

 loc='Sea\_Side\_Security';

elseif(choice1 == 18)

 loc='CC\_Security';

elseif(choice1 == 19)

 loc='PP\_Security';

end

if(choice3 == 1)

 date='1/5/2016';

elseif(choice3 == 2)

 date='2/5/2016';

elseif(choice3 == 3)

 date='3/5/2016';

elseif(choice3 == 4)

 date='4/5/2016';

elseif(choice3 == 5)

 date='5/5/2016';

elseif(choice3 == 6)

 date='6/5/2016';

elseif(choice3 == 7)

 date='7/5/2016';

elseif(choice3 == 8)

 date='8/5/2016';

elseif(choice3 == 9)

 date='9/5/2016';

elseif(choice3 == 10)

 date='10/5/2016';

elseif(choice3 == 11)

 date='11/5/2016';

elseif(choice3 == 12)

 date='12/5/2016';

elseif(choice3 == 13)

 date='13/05/2016';

elseif(choice3 == 14)

 date='14/05/2016';

elseif(choice3 == 15)

 date='15/05/2016';

elseif(choice3 == 16)

 date='16/05/2016';

elseif(choice3 == 17)

 date='17/05/2016';

elseif(choice3 == 18)

 date='18/05/2016';

elseif(choice3 == 19)

 date='19/05/2016';

elseif(choice3 == 20)

 date='20/05/2016';

elseif(choice3 == 21)

 date='21/05/2016';

elseif(choice3 == 22)

 date='22/05/2016';

elseif(choice3 == 23)

 date='23/05/2016';

elseif(choice3 == 24)

 date='24/05/2016';

elseif(choice3 == 25)

 date='25/05/2016';

elseif(choice3 == 26)

 date='26/05/2016';

elseif(choice3 == 27)

 date='27/05/2016';

elseif(choice3 == 28)

 date='28/05/2016';

elseif(choice3 == 29)

 date='29/05/2016';

elseif(choice3 == 30)

 date='30/05/2016';

elseif(choice3 == 31)

 date='31/05/2016';

end

if((choice3==1)||(choice3==2)||(choice3==3)||(choice3==4)||(choice3==5)||(choice3==6)||(choice3==7)||(choice3==8)||(choice3==9)||(choice3==10))

  [a,b,c,d,e,f,g,h]=textread('lan\_mod.txt', '%f %f %f %s %f %s %s %f');

elseif((choice3==11)||(choice3==12)||(choice3==13)||(choice3==14)||(choice3==15)||(choice3==16)||(choice3==17)||(choice3==18)||(choice3==19)||(choice3==20))

  [a,b,c,d,e,f,g,h]=textread('lan1\_mod.txt', '%f %f %f %s %f %s %s %f');

elseif((choice3==21)||(choice3==22)||(choice3==23)||(choice3==24)||(choice3==25)||(choice3==26)||(choice3==27)||(choice3==28)||(choice3==29)||(choice3==30)||(choice3==31))

  [a,b,c,d,e,f,g,h]=textread('lan2\_mod.txt', '%f %f %f %s %f %s %s %f');

end

si=size(a);

for i=1:si

 l=repmat(loc,i,1);

 date\_1=repmat(date,i,1);

end

lo=cellstr(l);

date\_mod=cellstr(date\_1);

lo1=find(strcmp(d,lo)& strcmp(f,date\_mod));

start\_time\_mod=str2double(strsplit(char(ans1),':'));

end\_time\_mod=str2double(strsplit(char(ans2),':'));

si1=size(lo1);

lo2=[];

for i=1:si1

    current\_time=char(g(lo1(i,1),1));

    current\_time\_mod=str2double(strsplit(current\_time,':'));

    if(current\_time\_mod(1,1)>start\_time\_mod(1,1) & current\_time\_mod(1,1)<end\_time\_mod(1,1))

        lo2=[lo2;lo1(i,1)];

    elseif(current\_time\_mod(1,1)==start\_time\_mod(1,1) & current\_time\_mod(1,2)>=start\_time\_mod(1,2))

        lo2=[lo2;lo1(i,1)];

    elseif(current\_time\_mod(1,1)==end\_time\_mod(1,1) & current\_time\_mod(1,2)<=end\_time\_mod(1,2))

        lo2=[lo2;lo1(i,1)];

    end

end

row\_size=size(lo2,1)

loc\_mod=[];

for j=1:row\_size

  loc\_mod(j,1)=c(lo2(j,1),1);

end

if(choice2 == 1)

 plot(loc\_mod);

 xlabel('time');

 ylabel('radiation level');

elseif(choice2 == 2)

 hist(loc\_mod);

 xlabel('radiation level');

 ylabel('values');

elseif(choice2 == 3)

 bar(loc\_mod);

 xlabel('time');

 ylabel('radiation level');

end