

SOURCE CODE:

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clc;
clear;
global ffield;
global win;
field=0;
printf('\n 1.Start \n 2.Misc');
value=input('Enter your choice:');
select(value)
case 1
global ffield;
global Win;
ffield=0;
mw=figure();
set(mw,'position',[20,40,500,450]);
set(mw,'figure_name','Tick-tack-toe');
label1=uicontrol('Style','text','Position',[80,400,250,20],'String','..
'Game in progress (click on the square
button)','HorizontalAlignment','left');
ubutton_c=uicontrol(mw,'Style','pushbutton','position',[80,380,120,20
]..
,'String','Restart game','CallBack','newgame());
ubutton=list([1:9]);
for i=1:9
num=string(i)
y=ceil(i/3);
x=i-((y-1)*3);
ubutton(i)=uicontrol(mw,'Style','pushbutton','position',[80*x+2,80*y,
80,80]..
,'String',' ','CallBack','press_button('+num+')');
end
function y=press_button(button_num)
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//gaming activities
global ffield;
global Win;
// Human
Button_Value=get(ubutton(button_num),'String');
if Button_Value==" " then
set(ubutton(button_num),'String','X');
ffield=ffield+1;
end
// AI
if ffield<9 then
ct=comp_turn(); //get random action of AI
buf=get(ubutton(ct),'String');
while buf ~= " " do
ct=comp_turn(); //get random action of AI
buf=get(ubutton(ct),'String');
end
set(ubutton(ct),'String','0');
end
ffield=ffield+1;
Winner()
endfunction
function R=comp_turn()
R = grand(1,1,"poi",4);
if R>9 then R=9; end;
if R<1 then R=1; end;
endfunction
function Winner()
res=0;
pw=0;
cw=0;

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plfield=hypermat([3,3]);
cmfield=hypermat([3,3]);
for ck=1:9 Button_Value=get(ubutton(ck),'String');
j=ceil(ck/3);
i=ck-((j-1)*3);
if Button_Value=="X" then plfield(j,i)=1; end
if Button_Value=="0" then cmfield(j,i)=1; end
end
pb=pob_diag(plfield,3);
sm=prod(plfield,1)+prod(plfield,2)';
if sum(sm)==1 then res=1; end;
if diag(plfield,0)==1 then res=1; end;
if pb==1 then res=1; end;
// check AI results
pb=pob_diag(cmfield,3)
sm=prod(cmfield,1)+prod(cmfield,2)';
if sum(sm)==1 then res=2; end;
if diag(cmfield,0)==1 then res=2; end;
if pb==1 then res=2; end;
if res==1 then set(label1,'String',"You Win"); end
if res==2 then set(label1,'String',"Computer Win"); end
if (ffield>=9) & (res==0) then set(label1,'String',"No Winner"); end
endfunction
function mult=pob_diag(A, N)
mult=1;
for i=1:N
mult=mult*A(i,N+1-i);
end
endfunction

```

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function mult=find_one(Win)
mult=1;
prod(Win,1)+prod(Win,2)'
for i=1:2
mult=mult+i;
end
endfunction
function newgame()
global ffield;
global Win;
global res;
for i=1:9
y=ceil(i/3);
x=i-((y-1)*3);
set(ubutton(i),'String',' ');
end;
ffield=0;
res=0
Win=0;
set(label1,'String','Game in progress (click on the square button)');
endfunction
case 2
fas=figure()
b=uicontrol(fas,'style','pushbutton','position',[500,400,210,120],'String','Instructions','Callback','ins()')
c=uicontrol(fas,'style','pushbutton','position',[500,280,210,120],'String',' About','Callback','abou()')
d=uicontrol(fas,'style','pushbutton','position',[500,160,210,120],'String',' Exit','Callback','exit1()')
function exit1()
exit
endfunction
function ins()

```

```
messagebox(['Tic Tac Toe ' 'Instructions' '1.Winner is one who  
achieves three x ' '2.It can be in a row or a column or even the  
diagonals' '3.Computer wins if it achieves the same criteria where 0  
meets the criteria'],'Instructions')  
endfunction  
function abou()  
messagebox(["DONE BY-" "ARUN BAALAAJI" "V SHREERAM"  
"ARAVINDAN"],'About');  
endfunction  
end
```