

Final Project Algorithm

function definitions

x1,y1 is the bottom left

x2,y2 is the top right

p1 = win.getMouse()

if p1.getX() >=x1 and p1.getX() <=x2 and p1.getY() >=y1 and p1.getY() <= y2:

 return True

else:

 return False

function definitions

txtObject = Text(Point(x, y), text)

 txtObject.setTextColor(color)

 txtObject.setStyle(style)

function definitions

randomNumber = 0

 randomNumber as integer

 generate a random number from 1 to 12

 randomNumber = randrange(1,13)

 tempComputer = randomNumber

 return tempComputer

function definitions

TextD = Text(Point(7,4), displayText)

```
TextD.setTextColor("Red")
```

```
TextD.setStyle("bold")
```

```
TextD.setSize(10)
```

```
TextD.draw(win)
```

```
image.draw(win)
```

```
sleep(2)
```

```
TextD.undraw()
```

```
image.undraw()
```

Declare and initialize variables

```
Int draws = 0, singleplayerwins = 0, computerwins = 0, single_player_weapon=0
```

```
bool isOver
```

create a graphics window

set coordinates to 10 x 10

set a background color

create a button using a image

create and draw text for button

create a button using a image

create and draw text for button

create a button using a image

create and draw text for button

display an image

```
while isOver == False:
```

```
    p1 = win.getMouse()
```

```
    if p1.getX() >= 4 and p1.getY() >= 6 and p1.getX() <= 7 and p1.getY() <= 9:
```

elif p1.getX() >= 4 and p1.getY() >= 4 and p1.getX() <= 6 and p1.getY() <= 6:

set a background color

create and draw text

display an image

create text using TextLayout function and draw

display an image

create text using TextLayout function and draw

display an image

create text using TextLayout function and draw

draw on blank screen to play rest of game

while isOver == False:

x=0

single_player_weapon=0

computer=0

p1 = win.getMouse()

if IsValidClick(win, 1, 6, 3, 8)== True:

single_player_weapon = 1

elif IsValidClick(win, 4, 6, 6, 8)== True:

single_player_weapon = 2

elif IsValidClick(win, 7.3, 5.7, 8.7, 8.3)== True:

single_player_weapon = 3

elif IsValidClick(win, 4.5, 1, 5.5, 1.8)== True:

isOver = True

```
else:

    invalid

    x =10

if isOver == False and x != 10:

    get random number using GetComputer function

    computer = GetComputer()

    if statements

        if single_player_weapon==3 and (computer > 0 and computer < 5):

            create text,display an image and draw using TextLayout function

            Add to player wins

            singleplayerwins += 1


        elif (computer > 4 and computer < 9) and single_player_weapon==1:

            create text,display an image and draw using TextLayout function

            Add to computer wins

            computerwins += 1


        elif single_player_weapon==1 and(computer > 7 and computer < 13):

            create text,display an image and draw using TextLayout function

            Add to player wins

            singleplayerwins += 1


        elif (computer > 0 and computer < 5) and single_player_weapon==2:

            create text,display an image and draw using TextLayout function
```

Add to computer wins

computerwins += 1

elif single_player_weapon==2 and (computer > 4 and computer < 9):

create text,display an image and draw using TextLayout function

Add to player wins

singleplayerwins += 1

elif (computer > 7 and computer < 13) and single_player_weapon==3:

create text,display an image and draw using TextLayout function

Add to computer wins

computerwins += 1

elif(computer > 0 and computer < 5) and single_player_weapon ==1:

create text,display an image and draw using TextLayout function

Add to draws

draws += 1

elif(computer > 4 and computer < 9) and single_player_weapon ==3:

create text,display an image and draw using TextLayout function

Add to draws

draws += 1

elif(computer > 7 and computer < 13) and single_player_weapon==2:

create text,display an image and draw using TextLayout function

Add to draws

draws += 1

create text, calculate scores, and draw

if isOver == True:

close window

if p1.getX() >= 4 and p1.getY() >= 1 and p1.getX() <= 5 and p1.getY() <= 2:

isOver = True

close window