**THE SNAKE GAME**

Packages Used :-

Pygame :- this package is used to initialize the game screen and may of the functions are used to display the game elements

Random ;- this package is used to import randrange function to generate random values withing the screen resolution

Techniques used :-

I used pygame.display.set\_mode to set screen with required resolution

To include background music I used pygame.mixer.music.load and play to play the music

A function named display\_score is used to display the score by taking score as parameter value

As follows :-

def display\_score(score):

font = pygame.font.SysFont("comicsansms", 35)

txt =font.render("score: "+str(score),True,white)

mode.blit(txt,[0,0])

A function named gameover is used to display the gameover image after losing the game by eating the snake or going out of borders. The code is as follows :-

def gameover():

bg = pygame.image.load("gameover.png")

mode.blit(bg,(0,0))

pygame.display.update()

pygame.time.wait(2000)

A function named snake is defined to display the snake body it is used to draw rectangle as per the length of snake\_list . The code is as follows :-

def snake(snake\_block, snake\_list):

for s in snake\_list:

pygame.draw.rect(mode, red, (s[0], s[1], snake\_block, snake\_block))

And finally a function named runTime is used to run the game and the main logic of the game is included in this function.

#irrespective

The logic of the game is included in function so that it can be implemented again but I havent included it as I did not understand or get an idea on how to do it

Game Working :-

Game starts when the runTime function is called

The variables initialized at start are

run = True #used to know if the game is running or not

x=mode\_width/2 #used for starting position of the snake

y=mode\_height/2 #used for starting position of the snake

x\_change = 0 # used for collecting the changing pixel values of the snake

y\_change = 0 # used for collecting the changing pixel values of the snake

snake\_List = [] #used for knowing the length of the snake

Length\_of\_snake = 1

score =0 #used for knowing the score

In while loop the game logic is coded if the game is runing the loop is opened.

if score==0:

pygame.time.delay(200)

else:

time = 200

pygame.time.delay(time-50)

This code is used for increasing the speed of snake as per the score

for event in pygame.event.get():

if event.type == pygame.QUIT:

run = False

if event.type == pygame.KEYDOWN:

if event.key == pygame.K\_LEFT:

x\_change = -10

y\_change = 0

elif event.key == pygame.K\_RIGHT:

x\_change = 10

y\_change = 0

elif event.key == pygame.K\_UP:

y\_change = -10

x\_change = 0

elif event.key == pygame.K\_DOWN:

y\_change = 10

x\_change = 0

This code is used for movement of snake where 10 is snake\_block

if x > mode\_width or x < 0 or y >= mode\_height or y < 0:

run = False

gameover()

pygame.quit()

This loop is used to stop the game if snake crosses the border

snake\_Head = []

snake\_Head.append(x)

snake\_Head.append(y)

snake\_List.append(snake\_Head)

This code is used to know the snake head and append the changing values to the list

for z in snake\_List[:-1]:

if z == snake\_Head:

run = False

If the snake eats itself the game is stopped

if x == foodx and y == foody:

foodx = round(random.randrange(0, mode\_width - snake\_block) / 10.0) \* 10.0

foody = round(random.randrange(0, mode\_height - snake\_block) / 10.0) \* 10.0

Length\_of\_snake += 1

This code is used for increasing the length of the snake after the snake eats

And the variables are multiplied and divided by 10 so as to get the pixel values as pixel values has to be same for the snake to eat I used that to ensure the snake eat