Task-12

Simulate Gaming concepts using Pygame.

12.1

Aim:- To simulate gaming concepts using Pygame.

Algorithm:-

1. Import Pygame Package and initialize it.
2. Define the window size and title.
3. create a snake class which initalize the snake position, color and movement.
4. create a fruit class.
5. create a function to check if the snakes collides.
6. create a function to check if the snake collides with window.
7. create a function to update the snake position.

Program:-

```
#importing libraries.
import pygame.
import time.
import random.
snake.speed = 15.
#window size.
window_x = 720.
window_y = 480.
#defining colors
black = pygame.color(0,0,0).
white = pygame.color(255,255,255).
red = pygame.colour(255,0,0).
green = pygame.colour(0,255,0)
```

output:-

score=20.

```
blue = pygame.colour(0,255)
# initialising pygame.
pygame.init().
#initialize game window.
pygame display set - caption('Greeks of Geeks
                                    snakes')
game_window=pygame.display.set_mode.
  # FPS(frames per second)
  fps=pygame.time.clock().
# defining snake default position.
   snake_Position=[100,50].
  # defining first.
        [90,50],
        [80,50]
        [70,50].
   # fruit position.
   fruit_Position=[random.randrange(1,*10)
```

Task-12.2

Aim:- write a Python Program to develop of a chess board using Pygame.

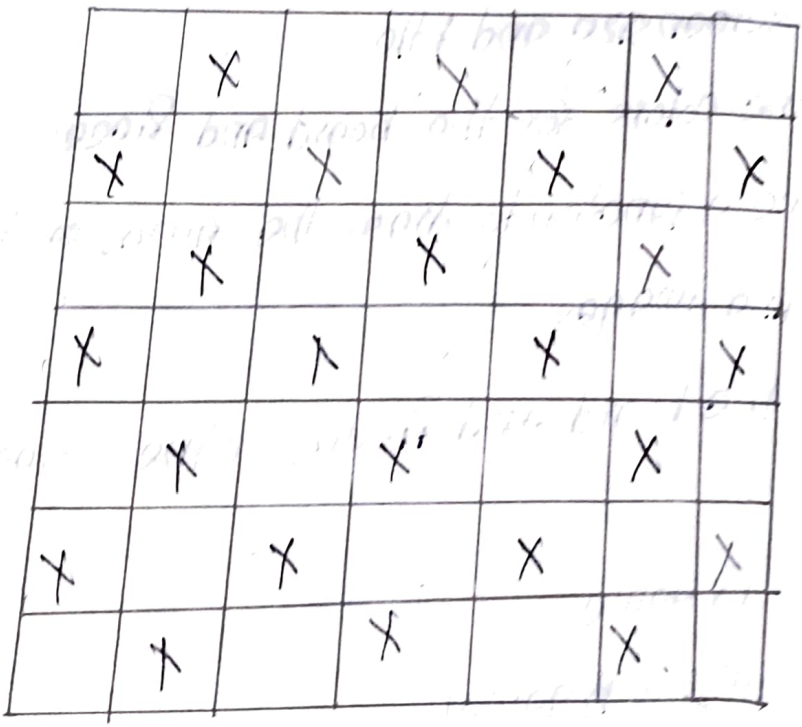
algorithm:-

1. Import Pygame and initialize it.
2. Set screensize and title.
3. Define colors for the board and Pieces.
4. Define a function to draw the Pieces on board by loading images.
5. Draw the board and Pieces on the screen.

Program:-

```
import Pygame.
#initialize Pygame.
  Py game.init().
# set screen size and title.
  screen_size = (640, 640).
  screen = Pygame.display.net.
  Pygame display.set.caption ('chess board').
# Define colors.
  black = (0,0,0).
  white = (255,255,255).
  brown = (153,76,0).
# Define function
  for row in range (8):
    square_color =
    square_rect =
  Pygame.dr
```

Output:-



```
# Define function to draw the Pieces.
def draw_Pieces(board):
Piece images={.
}
for row in range(8):
  for col in range(8):
   Piece = board [row][col].
   if Piece != ' ':
   Piece_image = Piece_images [Piece]
   Piece_rect = pygame.Rect.
    screen.blit.
# Define initial state of board.
  board = [
   ['r','n','b','q','k','b','n','r']
  ]
# Draw board and Pieces.
    draw_board ()
    draw_Pieces (board)
#Start game loop.
  while true:
  Py game.type. quit().
  Py game. quit()
  quit()
Pygame.display.update()
```

Completed

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EX NO.	12
ERFORMANCE (5)	5
ESULT AND ANALYSIS (5)	5
IVA VOCE (5)	5
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TOTAL	15
DATE	

Result:-

Thus, the Program for the Pygame is executed and verified successfully.