

## Task 12 :- Simulate Gaming Concept using python 17/10/25

Aim :- To Simulate a basic car dodging game using pygame with movement, obstacle, collision detection and game over logic

### Algorithm :-

- Initialize a pygame and create a game window.
- Draw a car (rectangle) that moves left/right with arrow keys.
- Generate falling obstacles.
- update position and check for collision
- Display "Gameover" on collision and Exit.

### Program code

```
import pygame, random, sys
pygame.init()
```

```
width, height = 400, 600
```

```
win = pygame.display.set_mode((width, height))
```

```
pygame.display.set_caption("Car Dodging Game")
```

```
clock = pygame.time.Clock()
```

```
WHITE, RED, BLUE = (255, 255, 255), (255, 0, 0), (0, 0, 255)
```

```
car = pygame.Rect(180, 500, 40, 60)
```

```
enemy = pygame.Rect(random.randint(0, 360), 0, 40, 60)
```

```
Speed = 5
```

While True :

```
win.fill(WHITE)
```

```
for event in pygame.event.get():
```

```
if event.type == pygame.QUIT: sys.exit()
```

```
Keys = pygame.key.get_pressed()
```

```
if Keys[pygame.K_LEFT] and car.left > 0: car.move_ip(-5, 0)
```

## output:

When you run this program :

A black game window opens

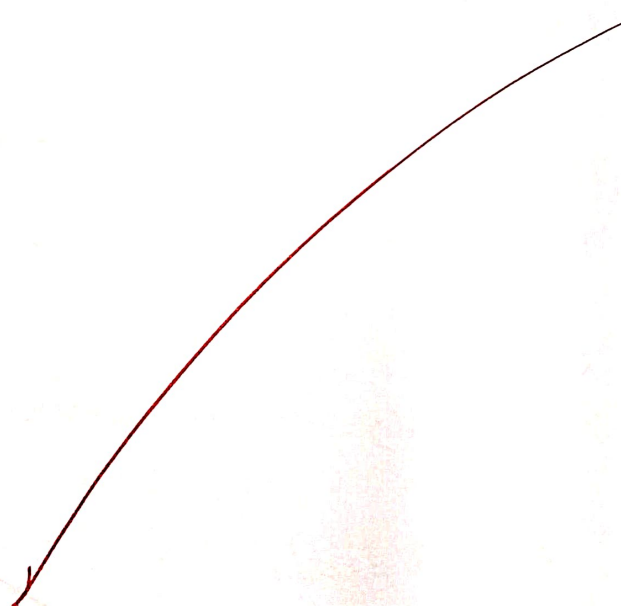
A blue car rectangle appears at bottom

Red blocks fall from the top

You can move the car left & right using arrow keys

If your car hits an obstacle, the screen displays :

"Game over!" for 2 seconds and then exist



VEI TECH	
PERFORMANCE (%)	
RESULT ANALYSIS (%)	
RECORD (%)	
TOTAL (%)	

if keys [pygame.K\_RIGHT] and car.right < width:  
car.move\_ip(5, 0)

enemy.move\_ip(0, speed)

if enemy.top > height:

enemy.top = 0

enemy.left = random.randint(0, 360)

if car.collidect(enemy):

font = pygame.font.SysFont(None, 50)

text = font.render("Game over", True, RED)

win.blit(text, (120, 250))

pygame.display.update()

pygame.time.wait(2000)

sys.exit()

pygame.draw.rect(win, BLUE, car)

pygame.draw.rect(win, RED, enemy)

pygame.display.update()

clock.tick(30)

VELTECH	
EX No	12
PERFORMANCE (5)	5
RESULT AND ANALYSIS (3)	5
GRADE (3)	5
CORD 1)	5
5)	15
WITH DATE	

Result: Thus, python program to simulate  
Game concept is executed.