**Функциональные возможности языка Python.**

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Описание задания:  
Разработать игру, используя библиотеку pygame

Код программы:

import pygame  
import time  
import random  
  
pygame.init()  
  
white, yellow, black, red, green, blue = (255, 255, 255), (255, 255, 102), (0, 0, 0), (213, 50, 80), (0, 255, 0), (50, 153, 213)  
dis\_width, dis\_height = 800, 600  
  
dis = pygame.display.set\_mode((dis\_width, dis\_height))  
pygame.display.set\_caption('Snake Game by Python')  
  
clock = pygame.time.Clock()  
snake\_block, snake\_speed = 10, 15  
  
font\_style = pygame.font.SysFont("bahnschrift", 25)  
score\_font = pygame.font.SysFont("comicsansms", 35)  
  
def our\_snake(snake\_block, snake\_list):  
 for x in snake\_list:  
 pygame.draw.rect(dis, black, [x[0], x[1], snake\_block, snake\_block])  
  
def your\_score(score):  
 value = score\_font.render("Your Score: " + str(score), True, yellow)  
 dis.blit(value, [0, 0])  
  
def message(msg, color):  
 mesg = font\_style.render(msg, True, color)  
 dis.blit(mesg, [dis\_width / 6, dis\_height / 3])  
  
def gameLoop():  
 game\_over, game\_close = False, False  
 x1, y1 = dis\_width / 2, dis\_height / 2  
 x1\_change, y1\_change = 0, 0  
 snake\_List, Length\_of\_snake = [], 1  
 foodx = round(random.randrange(0, dis\_width - snake\_block) / 10.0) \* 10.0  
 foody = round(random.randrange(0, dis\_height - snake\_block) / 10.0) \* 10.0  
  
 while not game\_over:  
 while game\_close:  
 dis.fill(blue)  
 message("You lost! Press Q-Quit or C-Play Again", red)  
 your\_score(Length\_of\_snake - 1)  
 pygame.display.update()  
  
 for event in pygame.event.get():  
 if event.type == pygame.KEYDOWN:  
 if event.key == pygame.K\_q:  
 game\_over, game\_close = True, False  
 if event.key == pygame.K\_c:  
 gameLoop()  
  
 for event in pygame.event.get():  
 if event.type == pygame.QUIT:  
 game\_over = True  
 if event.type == pygame.KEYDOWN:  
 if event.key == pygame.K\_LEFT:  
 x1\_change, y1\_change = -snake\_block, 0  
 elif event.key == pygame.K\_RIGHT:  
 x1\_change, y1\_change = snake\_block, 0  
 elif event.key == pygame.K\_UP:  
 x1\_change, y1\_change = 0, -snake\_block  
 elif event.key == pygame.K\_DOWN:  
 x1\_change, y1\_change = 0, snake\_block  
  
 if x1 >= dis\_width or x1 < 0 or y1 >= dis\_height or y1 < 0:  
 game\_close = True  
 x1 += x1\_change  
 y1 += y1\_change  
 dis.fill(blue)  
 pygame.draw.rect(dis, green, [foodx, foody, snake\_block, snake\_block])  
 snake\_Head = [x1, y1]  
 snake\_List.append(snake\_Head)  
 if len(snake\_List) > Length\_of\_snake:  
 del snake\_List[0]  
  
 for x in snake\_List[:-1]:  
 if x == snake\_Head:  
 game\_close = True  
  
 our\_snake(snake\_block, snake\_List)  
 your\_score(Length\_of\_snake - 1)  
 pygame.display.update()  
  
 if x1 == foodx and y1 == foody:  
 foodx = round(random.randrange(0, dis\_width - snake\_block) / 10.0) \* 10.0  
 foody = round(random.randrange(0, dis\_height - snake\_block) / 10.0) \* 10.0  
 Length\_of\_snake += 1  
  
 clock.tick(snake\_speed)  
  
 pygame.quit()  
 quit()  
  
gameLoop()

Снимки экрана:  
Изображение выглядит как снимок экрана, текст, Операционная система, компьютер

Автоматически созданное описаниеИзображение выглядит как текст, снимок экрана, компьютер, программное обеспечение

Автоматически созданное описание