

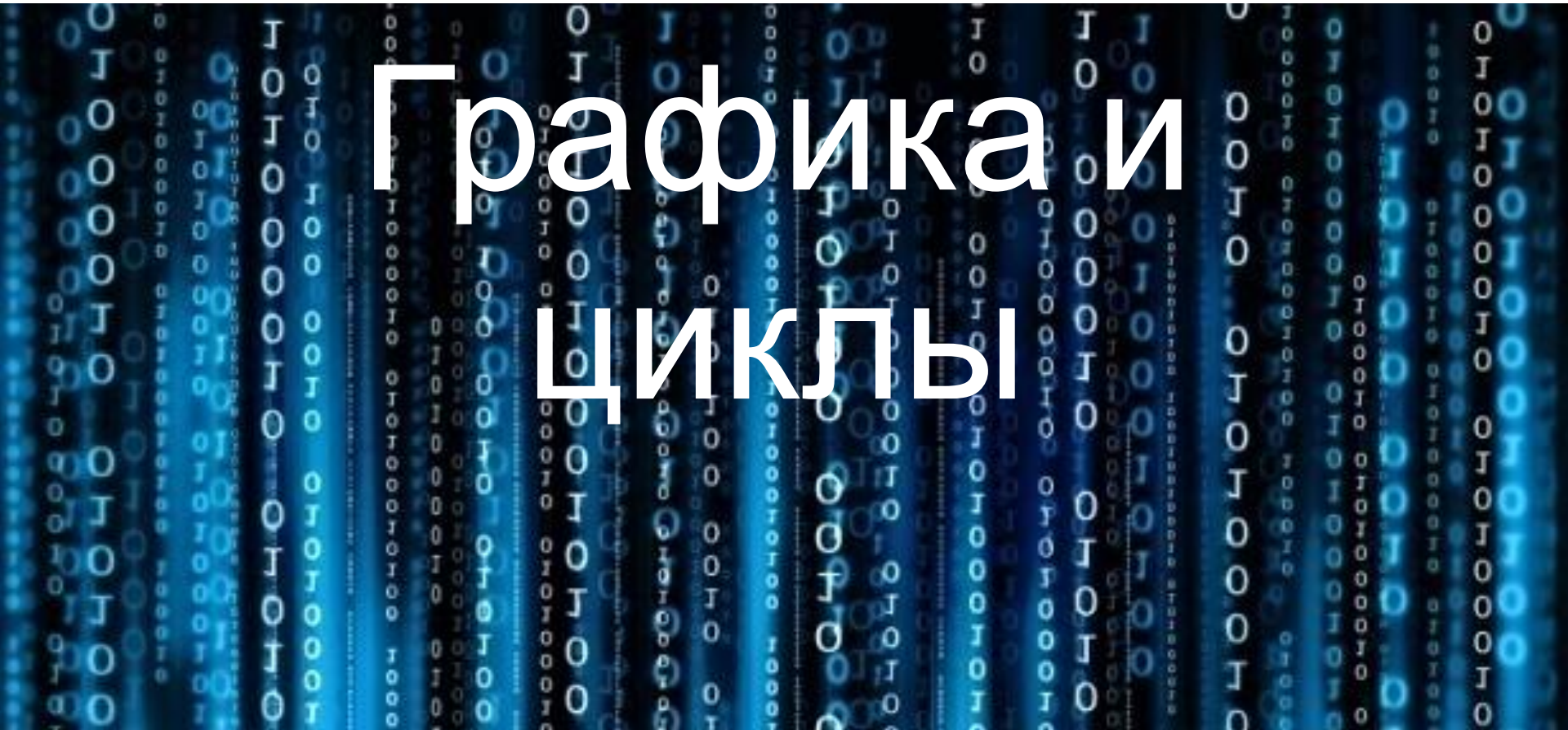
# ОСНОВЫ объектно-ориентированного программирования в среде



# LAZARUS

# Урок 20

## Графика и ЦИКЛЫ

The background of the slide features a dark blue field filled with vertical columns of glowing blue binary code (0s and 1s). The text 'Графика и ЦИКЛЫ' is centered in white, with 'Графика и' on the top line and 'ЦИКЛЫ' on the bottom line.

Form1: TForm1

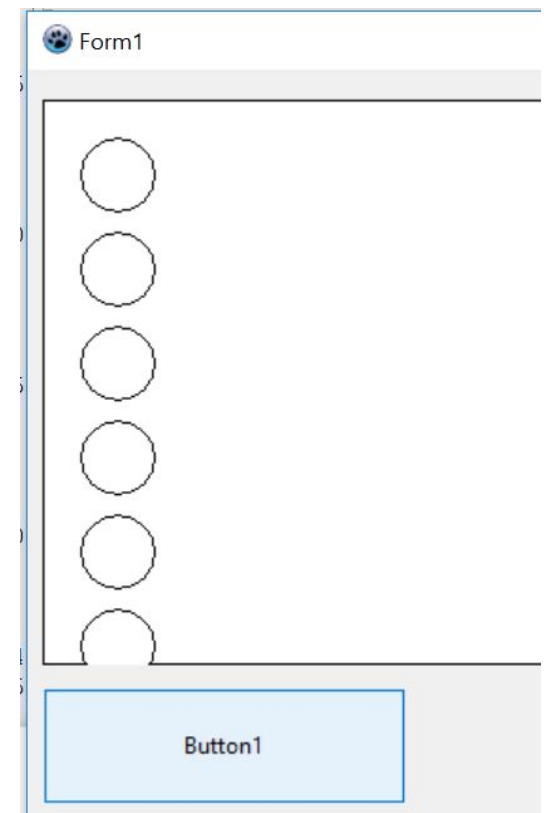
Shape1: TShape

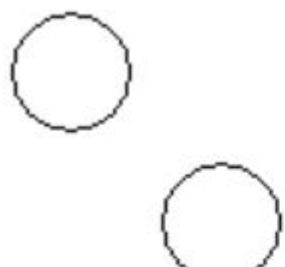
Button1: TButton

```
procedure TForm1.Button1Click(Sender: TObject);  
begin  
  with shape1.canvas do begin  
    ellipse(20,20,60,60);  
    end;  
  end;
```

```
procedure TForm1.Button1Click(Sender: TObject);  
var i, x: integer;  
begin  
  x:=20;  
  with shape1.canvas do begin  
    for i:=1 to 9 do begin  
      ellipse(x,20,x+40,60);  
      x:=x+50;  
    end;  
  end;  
end;
```

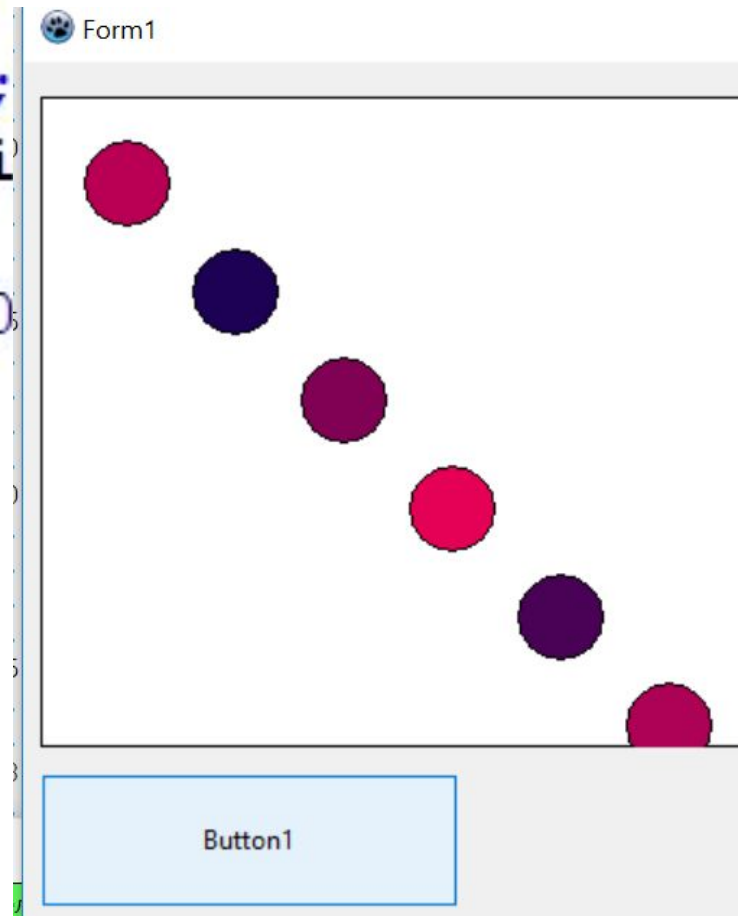
```
procedure TForm1.Button1Click(Sender: TObject);  
  var i, x, y: integer;  
begin  
  x:=20; y:=20;  
  with shapel.canvas do begin  
  for i:=1 to 9 do begin  
  ellipse(20, y, 60, y+40);  
  y:=y+50;  
  end;  
  end;  
end;
```





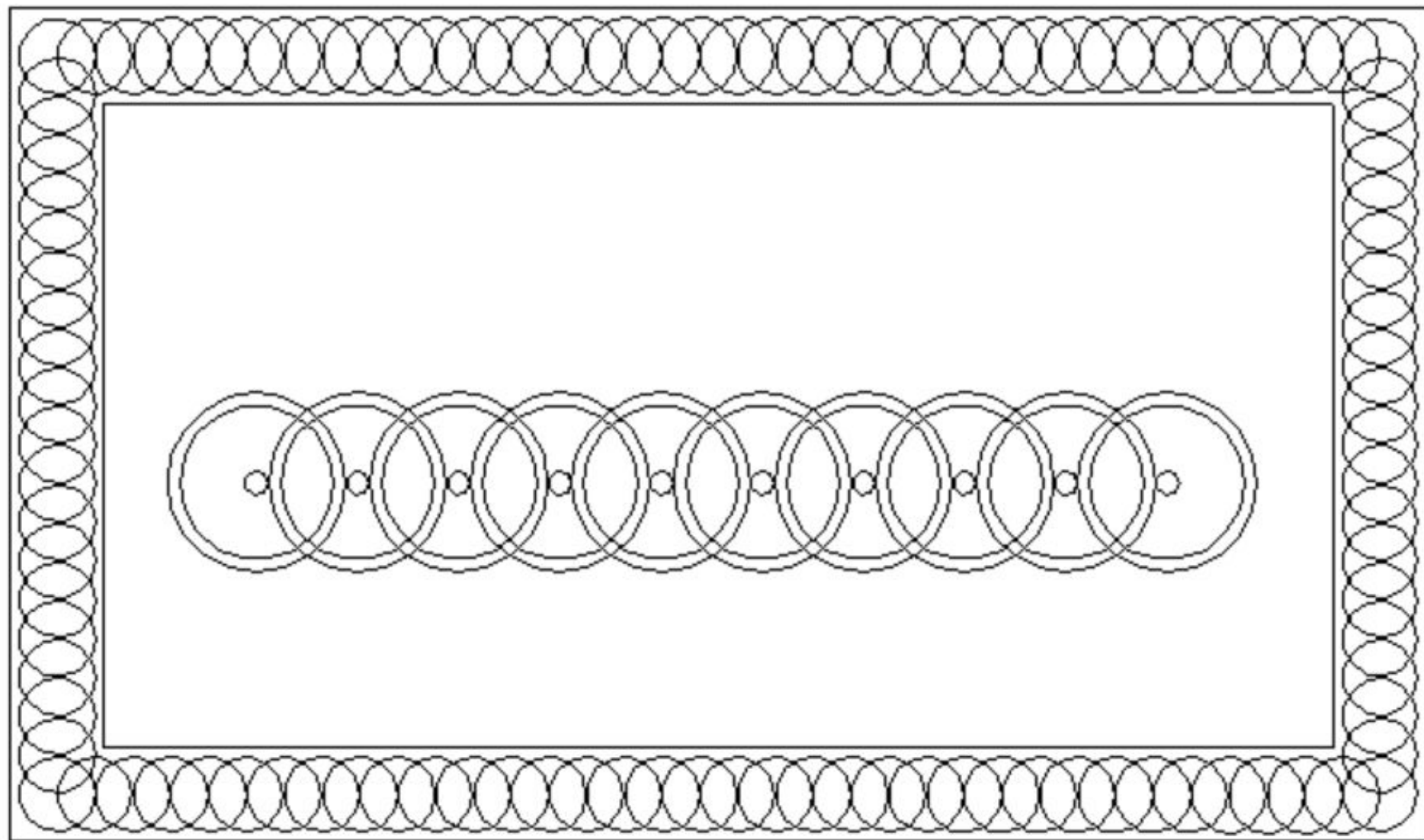
```
procedure TForm1.Button1Click(Sender: TObject);  
var i, x, y: integer;  
begin  
    x:=20; y:=20;  
    with shapel.canvas do begin  
        for i:=1 to 9 do begin  
            ellipse(x,y,x+40,y+40);  
            x:=x+50; y:=y+50;  
        end;  
    end;  
end;
```

```
procedure TForm1.Button1Click(Sender: TObject);  
var i, x, y: integer; c: longint;  
begin  
    x:=20; y:=20;  
    {c:=ColorToRGB($550075);  
    ShowMessage(inttostr(c));  
with shapel.canvas do begin  
for i:=1 to 9 do begin  
brush.color:=(5570645+i*10;  
ellipse(x,y,x+40,y+40);  
x:=x+50; y:=y+50;  
  
end;  
end;  
end;
```



# Задание

Составить программу рисования орнамента. Использовать циклический алгоритм.





```
procedure TForm1.Button1Click(Sender: TObject);
var i, x, y: integer;
begin
  with shapel.canvas do begin
    shapel.Canvas.Brush.Style:=bsClear; // без заливки
    x:=20;
    for i:=1 to 22 do begin
      ellipse(x, 20, x+40, 60);
      x:=x+20;
    end;
    y:=20;
    for i:=1 to 12 do begin
      ellipse(20, y, 60, y+40);
      y:=y+20;
    end;
  end;
end;
end;
```