

FLOWCHART – SNAKE GAME (PYTHON + PYGAME)

```
Start
|
v
Initialize pygame
|
v
Create game window (600x400)
|
v
Set colors, snake size, speed, font
|
v
Call game_loop()
|
v
----- GAME LOOP START -----
|
v
Set initial snake position & direction
|
v
Generate random food position
|
v
While game NOT over:
|
+--> If game_close:
| Show "Game Over" message
| Wait for:
|   C -> restart game_loop()
|   Q -> quit
|
+--> Handle keyboard input:
| Arrow keys → change dx, dy
|
+--> Update snake position (x += dx, y += dy)
|
+--> Check boundary collision:
| If hit wall → game_close = True
|
+--> Clear screen (BLACK)
|
+--> Draw food
|
+--> Append new snake head to snake_list
| If length exceeded → delete tail
|
+--> Check self-collision:
| If head hits body → game_close = True
```

```
+--> Draw snake boxes
|
+--> If snake eats food:
| Increase length
| Generate new food
|
+--> Update display & tick clock
|
v
----- GAME LOOP END -----
|
v
Quit pygame
|
v
End
```