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# snake_script Flowchart

START

Create a string array of 15 rows by 30 columns for the variable map.

Generate first piece of food using the generatefood function.

map location food_x, food_y ~= ' '
- **False** → map location food_x, food_y is replaced with an 'X'
- **True** → Generate next piece of food using the generate food function.

map location food_x, food_y is replaced with an 'X'

Create figure window

Put title, score, highscore, and map on the figure window using annotations

hitobstacle = 0

direction = 'a'

head_row = 8

head_col = 19

realscore = 0

direction ~= 'q' && hitobstacle ~= 1

olddirection = direction

Get current key from figure window and save in direction

**True**

Swtich statement for directions 'w', 'a', 's', 'd'

If next map location is out of bounds
- **False** → if next map location is a # or a =
  - **False** → update head row in correct direction
  - **True** → hitobstacle = 1
- **True** → direction = 'q'

Find snake end using findsnakeend function and set equal to ' '

Update figure window with new map

check if snake ate food with checkfood function

Snake ate foood
- **False**
- **True** → Change food location 'X' equal to the snake

Change food location 'X' equal to the snake

Generate new piece of food using generatefood function

map location food_x, food_y ~= ' '
- **False**
- **True** → Generate next piece of food using the generate food function.

Generate next piece of food using the generate food function.

map location food_x, food_y is replaced with an 'X'

realscore = realscore + 1

Update score on figure window

Increase snake length

Use pause to set speed of snake

User has not typed input on figure window
- **False**
- **True** → Notify user to press any key to start

Notify user to press any key to start

Save users score to scores.txt using savescores function

New highscore
- **False** → Close figure window
- **True** → Notify user

Notify user

Close figure window

END