

Snake

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## Chapter 1

# Module Interface Specification

Use doxygen (or equivalent) to document the interface for your modules.



## Chapter 2

# Class Index

### 2.1 Class List

Here are the classes, structs, unions and interfaces with brief descriptions:

<a href="#">Food.Food</a>	An Abstract Data type which represents a one-unit of food . . . . .	7
<a href="#">Interface.GUI</a>	A Class that will contain useful functions in order for the creation of main interface . . . . .	8
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<a href="#">Snake.Snake</a>	An Abstract Data type representing a snake character object . . . . .	11





## Chapter 3

# File Index

### 3.1 File List

Here is a list of all documented files with brief descriptions:

<a href="#">Food.py</a>	Implements an abstract data type for a snake's food . . . . .	13
<a href="#">highscore.py</a>	Implements the highscore interface . . . . .	13
<a href="#">Snake.py</a>	Implements an abstract data type for a snake . . . . .	14



## Chapter 4

# Class Documentation

### 4.1 Food.Food Class Reference

An Abstract Data type which represents a one-unit of food.

#### Public Member Functions

- def `__init__` (self, blockSize)  
*Food constructor.*
- def `draw_food` (self, location)  
*Draw method uses pygame to draw the food object on the window.*
- def `redraw_food` (self, x, y, location, screenSize)  
*redraw\_food method redraws the food on the screen randomly*

#### Public Attributes

- **size**

#### 4.1.1 Detailed Description

An Abstract Data type which represents a one-unit of food.

#### 4.1.2 Constructor & Destructor Documentation

4.1.2.1 def Food.Food.\_\_init\_\_ ( self, blockSize )

`Food` constructor.

Initializes the size of the food, this needs to be the same as snake's block size

**Parameters**

<i>blockSize</i>	the width and height of the square block representing the food
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**4.1.3 Member Function Documentation****4.1.3.1 def Food.Food.draw\_food ( self, location )**

Draw method uses pygame to draw the food object on the window.

**Parameters**

<i>location</i>	A list which consists the x and y location of the food
-----------------	--

**4.1.3.2 def Food.Food.redraw\_food ( self, x, y, location, screenSize )**

redraw\_food method redraws the food on the screen randomly

**Parameters**

<i>x</i>	is the location of snake's x-axis head location
<i>y</i>	is the location of snake's y-axis head location
<i>location</i>	is a list that gives the location of present food
<i>screenSize</i>	is the size of the screen

The documentation for this class was generated from the following file:

- [Food.py](#)

**4.2 Interface.GUI Class Reference**

A Class that will contain useful functions in order for the creation of main interface.

**Public Member Functions**

- def [runfile](#) (runfilename)  
*A function for running other files.*
- def [button](#) (Surface, color, Rect, width)  
*A method to create a button.*
- def [text](#) (text, fontStyle, fontSize, color, coord, surface)  
*A method to display text.*

### 4.2.1 Detailed Description

A Class that will contain useful functions in order for the creation of main interface.

### 4.2.2 Member Function Documentation

#### 4.2.2.1 `def Interface.GUI.button ( Surface, color, Rect, width )`

A method to create a button.

This method will make a box on the interface

##### Parameters

<i>surface</i>	The background (surface) the box should be made on
<i>color</i>	The color of the button to be made
<i>Rect</i>	The coordinate of the button with the length and width
<i>width</i>	The width of the sides of button

#### 4.2.2.2 `def Interface.GUI.runfile ( runfilename )`

A function for running other files.

Executes another python file when this is selected, Given that the file is in same folder.

##### Parameters

<i>runfilename</i>	The name of the file to be executed
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#### 4.2.2.3 `def Interface.GUI.text ( text, fontStyle, fontSize, color, coord, surface )`

A method to display text.

This function will print the text on the interface

##### Parameters

<i>text</i>	The text to be printed
<i>fontStyle</i>	The font Style of the text to be displayed
<i>fontSize</i>	The size of the text written
<i>color</i>	The color of the text
<i>coord</i>	The coordinate at which the text should start displaying
<i>surface</i>	The background (surface) the text should be printed on

The documentation for this class was generated from the following file:

- Interface.py

## 4.3 highscore.HighScore Class Reference

A Class that will contain useful functions in order for the creation of highscore page.

### Public Member Functions

- def `runfile` (runfilename)  
*A function for running other files.*
- def `text` (text, fontStyle, fontSize, color, coord, surface)  
*A method to display text.*
- def `button` (Surface, color, Rect, width)  
*A method to create a button.*
- def `findHighscore` ()  
*Finds the highest score from the file.*

### 4.3.1 Detailed Description

A Class that will contain useful functions in order for the creation of highscore page.

### 4.3.2 Member Function Documentation

#### 4.3.2.1 def highscore.HighScore.button ( Surface, color, Rect, width )

A method to create a button.

This method will make a box on the interface

#### Parameters

<i>surface</i>	The background (surface) the box should be made on
<i>color</i>	The color of the button to be made
<i>Rect</i>	The coordinate of the button with the length and width
<i>width</i>	The width of the sides of button

#### 4.3.2.2 def highscore.HighScore.findHighscore ( )

Finds the highest score from the file.

This writes the input from the file in an array and find the max number from it

#### 4.3.2.3 def highscore.HighScore.runfile ( runfilename )

A function for running other files.

Executes another python file when this is selected, Given that the file is in same folder.

## Parameters

<i>runfilename</i>	The name of the file to be executed
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4.3.2.4 `def highscore.HighScore.text ( text, fontStyle, fontSize, color, coord, surface )`

A method to display text.

This function will print the text on the interface

## Parameters

<i>text</i>	The text to be printed
<i>fontStyle</i>	The font Style of the text to be displayed
<i>fontSize</i>	The size of the text written
<i>color</i>	The color of the text
<i>coord</i>	The coordinate at which the text should start displaying
<i>surface</i>	The background (surface) the text should be printed on

The documentation for this class was generated from the following file:

- [highscore.py](#)

## 4.4 Snake.Snake Class Reference

An Abstract Data type representing a snake character object.

### Public Member Functions

- `def __init__ (self, blockSize, direct, speed, axis)`  
*Snake constructor.*
- `def draw (self, x, y)`  
*Draw method uses pygame to draw the snake object.*

### Public Attributes

- **speed**
- **direct**
- **size**
- **axis**

#### 4.4.1 Detailed Description

An Abstract Data type representing a snake character object.

## 4.4.2 Constructor & Destructor Documentation

4.4.2.1 `def Snake.Snake.__init__( self, blockSize, direct, speed, axis )`

[Snake](#) constructor.

Initializes a [Snake](#) object with its initial attributes

Parameters

<i>blockSize</i>	the width and height of the square block representing the snake
<i>direct</i>	The direction of the snake's movement
<i>speed</i>	The initial speed of the snake's movement

## 4.4.3 Member Function Documentation

4.4.3.1 `def Snake.Snake.draw( self, x, y )`

Draw method uses pygame to draw the snake object.

Parameters

<i>x</i>	The x-coordinate where the block should be drawn
<i>y</i>	The y-coordinate where the block should be drawn

The documentation for this class was generated from the following file:

- [Snake.py](#)



## Chapter 5

# File Documentation

### 5.1 Food.py File Reference

implements an abstract data type for a snake's food

#### Classes

- class [Food.Food](#)  
*An Abstract Data type which represents a one-unit of food.*

#### 5.1.1 Detailed Description

implements an abstract data type for a snake's food

#### Author

Usman Irfan

#### Date

11/09/2018

### 5.2 highscore.py File Reference

implements the highscore interface

#### Classes

- class [highscore.HighScore](#)  
*A Class that will contain useful functions in order for the creation of highscore page.*

## Functions

- def [highscore.main](#) ()  
*Makes the highscore interface.*

### 5.2.1 Detailed Description

implements the highscore interface

#### Author

Vaibhav Chadha

#### Date

11/09/2018

### 5.2.2 Function Documentation

#### 5.2.2.1 def highscore.main ( )

Makes the highscore interface.

This will output the final interface using the class above which can be seen by executing this function.

## 5.3 Snake.py File Reference

implements an abstract data type for a snake

## Classes

- class [Snake.Snake](#)  
*An Abstract Data type representing a snake character object.*

### 5.3.1 Detailed Description

implements an abstract data type for a snake

#### Author

Andy Hameed

#### Date

11/09/2018

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