# Window class

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### 1 Window Class

### 1.1 Description

The window class represents a window application. It is powered by pygame. The window has a tree of window elements which it uses to render the window elements each frame. The tree is traversed with each element receiving events occurring and are tagged to be rerendered when their state has changed.

#### 1.2 Class fields

Field name	Type	Description
width	int	Defines the width of the window in pixels
height	int	Defines the height of the window in pixels
windowtitle	str	The title of the window(show in the bar)
event_loop	function	Event loop of the window application. If
		not specified differently just calls render on
		its window elements.
screen	surface object	Surface object(PyGame object) which win-
		dow elements are drawn on
window_elements	window_element	Tree of window elements which is traversed
		whenever the new frame starts.

#### 1.3 Class methods

Method name	Parameters	Description
init		Initializes the class and pygame
str		String representation of the window class
		object
repr		String representation of the window class
		object in iterable objects
run		Runs the event loop of the application.

### 2 Window elements

#### 2.1 Description

Window elements is an abstract class of elements which are drawn onto the surface of the window application. They have a render method and an event handler, the event handler is called whenever a frame is done and a new frame is starting to be drawn.