

## Bug Fixes:

Bug #1:	Buildings generated outside of canvas. Players are unable to see the building.
Expected:	Players should be able to see all buildings that they are required to destroy.
Reproduce:	Run game.
Cause:	The generation values for the building are set to 1200 which defines the valid generation range to be 1200 which is larger than the canvas width size of 1000.
Fix:	<p>The canvas size is changed to be set to 1200. This ensures that buildings are not generated outside of the player's visible screen.</p> <pre>CANVAS_WIDTH = 1200</pre>

Bug #2:	Bomb cannot be released again if it misses a building.
Expected:	Bombs should be releasable again if it has missed and then hit the ground.
Reproduce:	Release bomb in between buildings or right when the plane resets.
Cause:	No statement to indicate that bomb has hit the ground and hence it continues falling.
Fix:	<p>Adding in a statement which checks if the bomb is past the canvas height at which point it can be dropped again.</p> <pre>if pos[1] &gt;= CANVAS_HEIGHT:     bomb_falling = False</pre>

Bug #3:	Plane doesn't start from the edge of the canvas making it difficult for the player to hit the first building on the right.
Expected:	Plane should begin from the edge of the canvas so that the first building can be hit and is not passed immediately.
Reproduce:	Get past the first runthrough.

Cause:	This is as when the plane is reset to the original x position, it does not account for the width of the plane.
Fix:	<p>By adding +100 after, it will match the initial entry position whilst accounting for the width of the plane.</p> <pre>plane_pos[0] = CANVAS_WIDTH + 100</pre> <pre>pos[0] += CANVAS_WIDTH + 100</pre>

Bug #4:	Unable to win even when buildings cleared and ground level reached.
Expected:	Game should be winnable.
Reproduce:	Clear all the buildings and let the game run through until the supposed win should happen.
Cause:	Landing condition is precise, must be exactly the canvas height when this can't happen as the plane never reaches that height due to the numbers used.
Fix:	<p>Two ways:</p> <ul style="list-style-type: none"> <li>- Set canvas height to one that matches.</li> <li>- Set condition to &gt;= Canvas Height, allowing for when it is lower.</li> </ul> <pre>if plane_body_pos[1] &gt;= CANVAS_HEIGHT and plane_body_pos[0] &lt; 20:     plane_landed(canvas)</pre>

Bug #5:	Unable to restart the game if the game is not over, throws a NameError.
Expected:	You should be able to restart the game whenever desired.
Reproduce:	Try restarting the game before the game is over, hence before the plane crashes into a building.
Cause:	No msg_text exists. Hence the command canvas.delete(msg_text) is unable to run correctly and a NameError is thrown.
Fix:	<p>Add a try except statement to catch the NameError that is thrown. This tries the canvas.delete(msg_text) and skips it if an error is thrown.</p> <pre>try:</pre>

	<pre>         canvas.delete(msg_text)     except NameError:         pass </pre>
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Bug #6:	Buildings not cleared correctly, rectangle in back does not shrink when bombed and there are duplicates.
Expected:	There should be no duplicate buildings even if just a visual duplication. Furthermore, old building graphics should not be retained.
Reproduce:	Keep restarting.
Cause:	Building_rects.clear() is missing.
Fix:	Add building_rects.clear() into the function of create_buildings(). <pre> building_rects.clear() </pre>

Also:

- Added small offset to the creation of buildings so that they are more centered.