Bug report of the *Bomber Game*

Bug #1:

Summary: Cannot drop more bombs if a bomb misses.

Description of what happens: If a bomb drops between buildings, then it falls infinitely, disallowing the user from dropping any more bombs. This is because there are no checks on whether the bomb ever reaches the bottom of the “screen”.

Description of what should happen: The bomb should reach the bottom and disappear, allowing the user to then drop further bombs.

How to reproduce the bug: Run the program and press the spacebar such that the bomb drops in between the two buildings.

Bug #2:

Summary: Plane starts slightly ahead of the complete, rightmost building.

Description of what happens: After the plane reaches the end, the canvas width is added to the value of the x position of the edge of the plane, however the x position is negative which results in the result of the addition being less than the canvas width. As a result of this the plane initialises ahead of the rightmost building making it impossible to destroy that building.

Description of what should happen: Once the plane reaches the end, it should start from the rightmost side with the tip being at the canvas width.

How to reproduce the bug: Run the program and wait for the plane to reach the end and then you can see that the plane is drawn ahead of the building when it is redrawn.

Bug #3:

Summary: Some parts of the bomb may touch a building but no explosion/shrinking occurs.

Description of what happens: When the sides of the bomb hit a building, the bomb falls through the building without exploding and resulting in the building shrinking. This is

because when we check whether the bomb has made contact with the building, we only consider a single point on the bomb when we should be considering the whole width of the bomb.

Description of what should happen: The bomb should explode, and building should shrink.

How to reproduce the bug: Drop the bomb such that the midpoint of the bomb does not make contact with the building whilst the sides still do.

Bug #4:

Summary: Theres a building at the very right-hand side which is not big enough to fit entirely on the screen.

Description of what happens: Because it is on the very edge of the right-hand side, we are unable to drop a bomb on the building. Thus, the plane is able to hit this building and therefore crashes making it impossible for the user to advance to the next level as there is no way for them to destroy the building.

Description of what should happen: The building should not exist as the “whole” building does not fit on the canvas.

How to reproduce the bug: Run the program, the building is always present on the right-hand side.

Bug #5:

Summary: Impossible to win the game.

Description of what happens: Once all buildings have been cleared, the program still deems that the user has lost as the selection statements are incorrect in the actual code.

Description of what should happen: User should win and be given the option to press n to enter the next level

How to reproduce the bug: Destroy all buildings and wait.

##Solutions have been implemented in bomber_proc.py