# CO1417-Explorations in Computing - Week 4

## Topic of this week: Arkanoid Project

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This report provides the Solutions for the assignment given by the lecturers for a functional program with:

* Main Menu
* Easy and Hard Mode
* Lose Screen
* Win Screen

Resources I have studied and used during this week:

[1] <https://www.cs.cmu.edu/~112/notes/notes-graphics.html>

[2] <https://arxiv.org/ftp/arxiv/papers/1808/1808.09094.pdf>

[3] <https://www.cs.cmu.edu/~15110-n15/labs/lab9/index.html>

[4] <https://python-course.eu/tkinter/canvas-widgets-in-tkinter.php>

[5] <https://docs.python.org/3/library/tkinter.html>

[6] All previous week’s materials

# Main Menu

Table

Description automatically generated with medium confidence

The player has the option to choose whether to play the game on Easy Mode or Hard Mode by pressing either 1 or 2. The player has the option to press x at any time throughout the game to exit it.

# When the game runs normally

Chart

Description automatically generated

The player can control the craft by the mouse and try to position the craft so it bounces the ball to the right position to break all the bricks. The score can be shown on the bottom left side of the window and the ball shadows can be seen with a darker colour.

# When the player wins

Chart, treemap chart

Description automatically generated

When the player successfully breaks all the bricks the ball is removed and a box in the centre of the screen appears with the “YOU WON” statement followed by the player’s score.

# When the player loses

Chart

Description automatically generated

When the player can’t hit the ball with the craft and the ball passes the craft and hits the bottom side of the window, the player loses. The ball disappears and a box appears on the centre of the screen stating the known “GAME OVER” statement followed by the player’s current score.