

Junior Knights Assignments: Generation, Collision, Removal

Task A: Block Blaster

In this assignment, you'll build a game called Block Blaster using Pygame. The task is to create a game where the player controls a character at the bottom of the screen, dodging falling blocks and blasting them with projectiles. When a projectile collides with a falling block, the block is removed and the player's score increases. You'll implement player movement, shooting mechanics, collision detection, and score tracking.

Requirements:

- Player Movement:
 - The player can move left and right along the bottom of the screen using keyboard input.
- Shooting Mechanic:
 - The player can shoot projectiles straight up. Each press of a key (like spacebar) should launch a projectile upward.
- Falling Blocks:
 - Blocks should fall from the top of the screen at random positions and intervals.
- Collision Detection:
 - When a projectile collides with a falling block, remove the block from the screen and increment the player's score.
- Score Tracking:
 - Display the player's current score on the screen.

Extra Challenges (optional):

- Come up with a game over condition. It could be something like a block reaching the bottom of the screen.
- Make it so that you can shoot in the direction of a mouse click. (mathy)