Links:

<https://youtu.be/MMZABl2Vc24>

<https://youtu.be/5jjwIFs3YTM>

<https://youtu.be/oIwKkQFxMKY>

<https://youtu.be/fW3ajyCTVCk>

<https://youtu.be/yyI1CJw-SOI>

<https://youtu.be/QuU7MH6XGwQ>

Mouse Presses:

* WASD to move
* SPACE to move through levels
* From physics and pathfinding level BACK to skip level
* From main menu press BACK to enter networking level
* F9 to join as server in networking level and f10 as client
* ESC to close game from win or lose screen

Screenshots:

A video game screen with a dog

Description automatically generated

Shows AABB vs AABB (floor vs Grey cube), OBB vs AABB (Blue cube vs floor), Sphere vs AABB (Character vs floor)

Also shows camera following mouse and character orientation matching camera position

A video game screen with a dog on a blue cube

Description automatically generated

Shows Sphere vs OBB (character vs OBB)

A video game screen with a dog

Description automatically generated

OBB vs OBB collision

A screenshot of a video game

Description automatically generated

Shows enemy object using A\* to move towards player object and also shows enemy state machine in track state as it cannot see player using a raycast.

A screenshot of a video game

Description automatically generated

Shows enemy objects state machine in chase state as it can see playerObject using a raycast. It simply applies force towards the player

A screenshot of a computer

Description automatically generated

Show server and client being updated to have the same game world

A screenshot of a computer

Description automatically generated

Shows that if a player collects a golden sphere they get points but the opponent doesn’t and it vanishes for both players

A screenshot of a video game

Description automatically generated

Shows position and orientation constraint applied to OBB cubes

A screen shot of a video game

Description automatically generated

Menus and levels are all generated using pushdown automata