CODE JOURNAL – PATH PLANNER

**CLASS 1 – Graph Node:**

Member Variables are:

1. Cell Width
2. Cell Height
3. X and z coordinates
4. Boolean Obstacle Variable
5. Boolean Within Lane Variable

Member Functions are:

1. Default Constructor:

* Applies x and z as 0. Cell Width and Cell Height as 10cm.
* Boolean Obstacle is default marked as Non Obstacle
* Initially marked as within lane.

1. Overloaded Constructor:

Inputs: x and z coordinates as double values. Width and height with default 10 cm value

* Performs all the above with the given x,z,w and h params.

1. Get Cell Param:

* Gives details of all the variables of the node to the output screen.

1. Set Obstacle : sets the obstacle Boolean to true.
2. CheckPresence: Inputs(double values x and z)

* Checks and returns true if coordinate is present in the current cells

**CLASS 2 – Grid2D:**

Member Variables are:

1. 2D vector of Graph Nodes

Member Functions are:

1. Default Constructor:

* Constructs a 30 by 20 grid of Nodes with the 300 corresponding to the z axis.

1. Overloaded Constructor:

Inputs: x and z coordinates as double values. Width and height with default 10 cm value

* Performs all the above with the given x,z,w and h params.

Cood system

Z = 2m

X = -1m

0

X = 1m