Gamer Pyamaze

Python Code:

```python
from pyamaze import maze,agent,textLabel,COLOR

from collections import deque


def BFS(m,start=None):
    if start is None:
        start=(m.rows,m.cols)
    frontier = deque()
    frontier.append(start)
    bfsPath = {}
    explored = [start]
    bSearch=[]


    while len(frontier)>0:
        currCell=frontier.popleft()
        if currCell==m._goal:
            break
        for d in 'ESNW':
            if m.maze_map[currCell][d]==True:
                if d=='E':
                    childCell=(currCell[0],currCell[1]+1)
                elif d=='W':
                    childCell=(currCell[0],currCell[1]-1)
```

```python
        elif d=='S':

            childCell=(currCell[0]+1,currCell[1])

        elif d=='N':

            childCell=(currCell[0]-1,currCell[1])

        if childCell in explored:

            continue

        frontier.append(childCell)

        explored.append(childCell)

        bfsPath[childCell] = currCell

        bSearch.append(childCell)
    # print(f'{bfsPath}')
    fwdPath={}
    cell=m._goal
    while cell!=(m.rows,m.cols):
        fwdPath[bfsPath[cell]]=cell
        cell=bfsPath[cell]
    return bSearch,bfsPath,fwdPath


if __name__=='__main__':
    # m=maze(5,5)
    # m.CreateMaze(loadMaze='bfs.csv')
    # bSearch,bfsPath,fwdPath=BFS(m)
    # a=agent(m,footprints=True,color=COLOR.green,shape='square')
    # b=agent(m,footprints=True,color=COLOR.yellow,shape='square',filled=False)
```

```python
    # c=agent(m,1,1,footprints=True,color=COLOR.cyan,shape='square',filled=True,goal=(m.rows,m.cols))

    # m.tracePath({a:bSearch},delay=500)

    # m.tracePath({c:bfsPath})

    # m.tracePath({b:fwdPath})

   # m.run()

    m=maze(12,10)

    # m.CreateMaze(5,4,loopPercent=100)

    m.CreateMaze(loopPercent=10,theme='light')

    bSearch,bfsPath,fwdPath=BFS(m)

    a=agent(m,footprints=True,color=COLOR.yellow,shape='square',filled=True)

    b=agent(m,footprints=True,color=COLOR.red,shape='square',filled=False)

    # c=agent(m,5,4,footprints=True,color=COLOR.cyan,shape='square',filled=True,goal=(m.rows,m.cols))


c=agent(m,1,1,footprints=True,color=COLOR.cyan,shape='square',filled=True,goal=(m.rows,m.cols))

    m.tracePath({a:bSearch},delay=100)

    m.tracePath({c:bfsPath},delay=100)

    m.tracePath({b:fwdPath},delay=100)

   m.run()
```
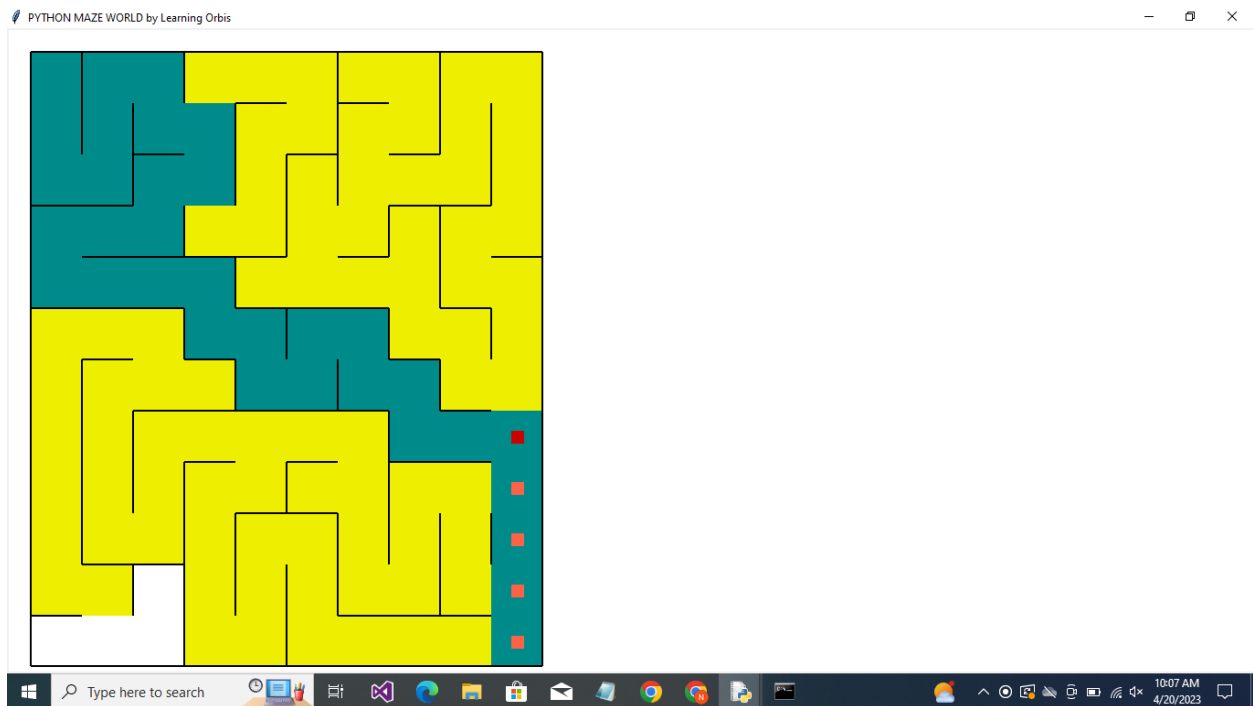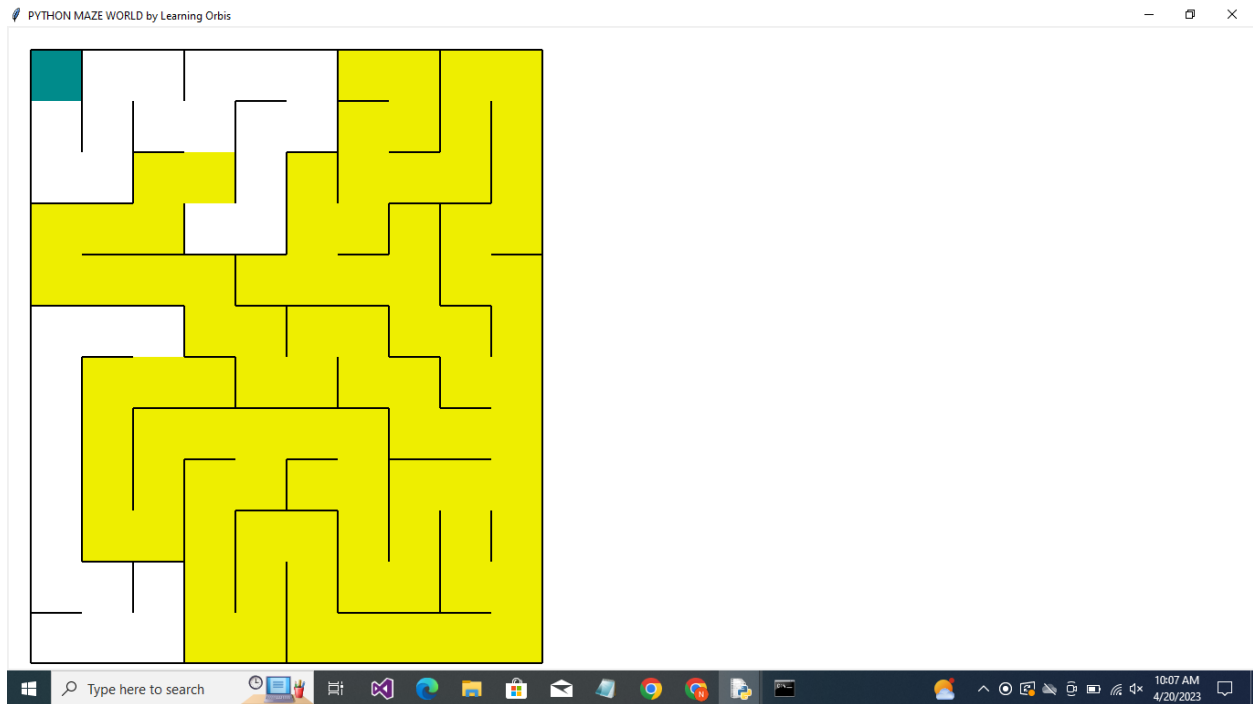
Game Screenshot:

Reference:

https://youtu.be/D14YK-0MtcQ