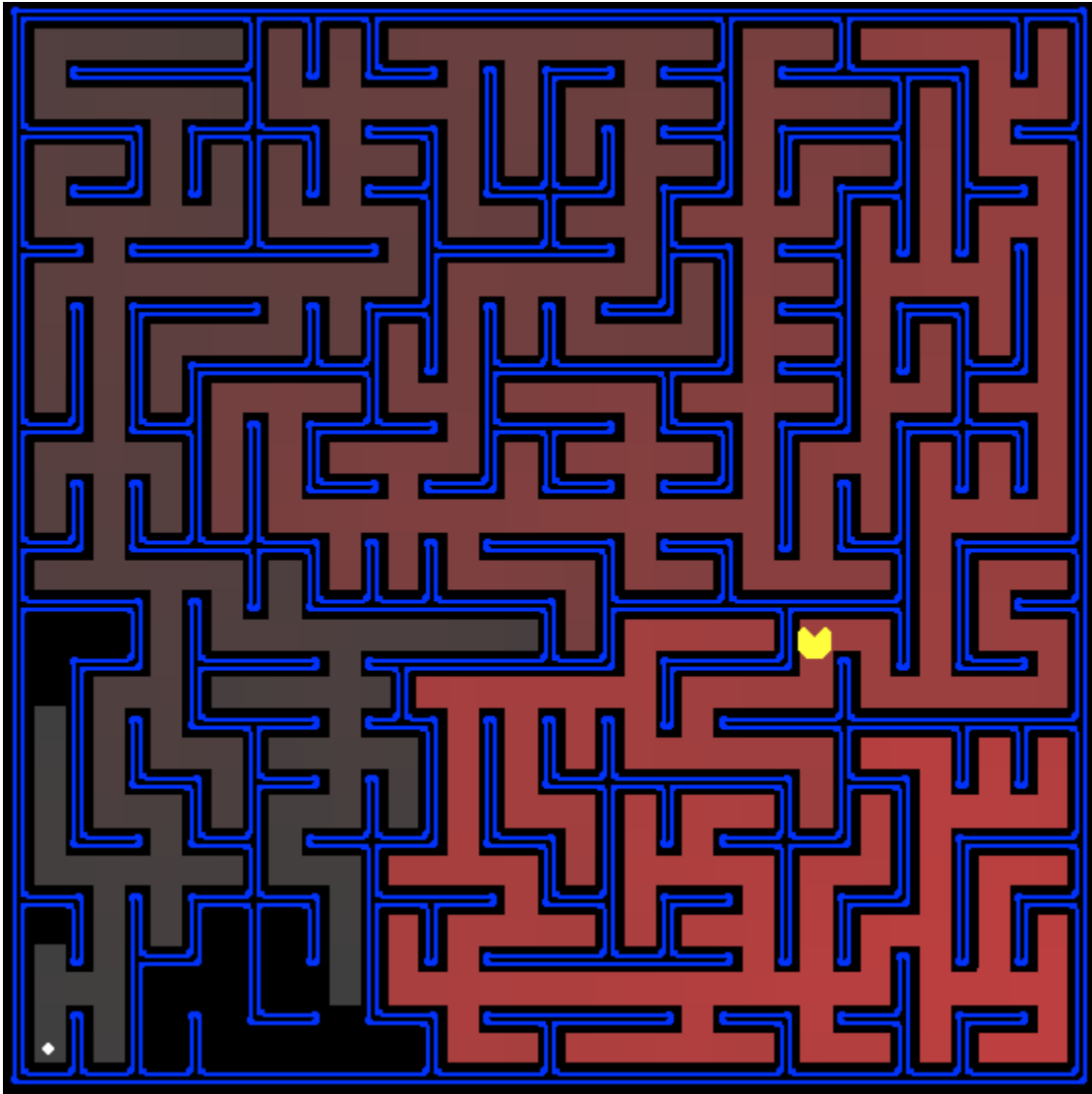# PROJECT 1: SEARCH IN PACMAN

All those colored walls,
Mazes give Pacman the blues,
So teach him to search.

Introduction

In this project, your Pacman agent will find paths through his maze world, both to reach a particular location and to collect food efficiently. You will build general search algorithms and apply them to Pacman scenarios.

The code for this project consists of several Python files, some of which you will need to read and understand in order to complete the assignment, and

some of which you can ignore. You can download all the code and supporting files as a zip archive.

Files you'll edit:

search.py   Where all of your search algorithms will reside.

searchAgents.py   Where all of your search-based agents will reside.

Files you might want to look at:

pacman.py   The main file that runs Pacman games. This file describes a Pacman GameState type, which you use in this project.

game.py   The logic behind how the Pacman world works. This file describes several supporting types like AgentState, Agent, Direction, and Grid.

util.py   Useful data structures for implementing search algorithms.

Supporting files you can ignore:

graphicsDisplay.py   Graphics for Pacman

graphicsUtils.py   Support for Pacman graphics

textDisplay.py   ASCII graphics for Pacman

ghostAgents.py   Agents to control ghosts

keyboardAgents.py   Keyboard interfaces to control Pacman

layout.py   Code for reading layout files and storing their contents