

Introduction to AI assignment 2

Applying the A* Algorithm

Danilas Miscenko, Aleksander Simmersholm

September 2020

How to run the code

The code is written in Python 3, so to run the code, you must first install Python 3 on your computer, if you don't already have it. After ensuring that Python 3 is installed, extract the zipped file called "IntroAI_assignment_2.zip". When extracted, you should have a folder called "code". All of the code files, as well as the csv files, are in this folder.

If you are using Linux, then, from the commandline, from the "code" folder, run the command:

```
python3 A_Star.py <Task number>
```

Change the <Task number> to the number of the task you wish to run. For example, if I wanted to check task 3, then I would write in this command:

```
python3 A_Star.py 3
```

If you're using Windows, then load the file called "A_Star.windows.py" into the IDE of your choosing, and follow the instructions in the comments. It should be noted that the windows file has not been tested on a Windows platform, and that it is strongly advised to run the code on a unix based system, preferably Linux.

Another thing worth mentioning is that when the code is ran, a visual representation of the path-finding algorithm is shown. Before running the code again, be it for the same task or a different one, you have to close the image window (the visual representation window). If this is not done, the next image cannot be generated, and so the image will come up as an error.

Task 1

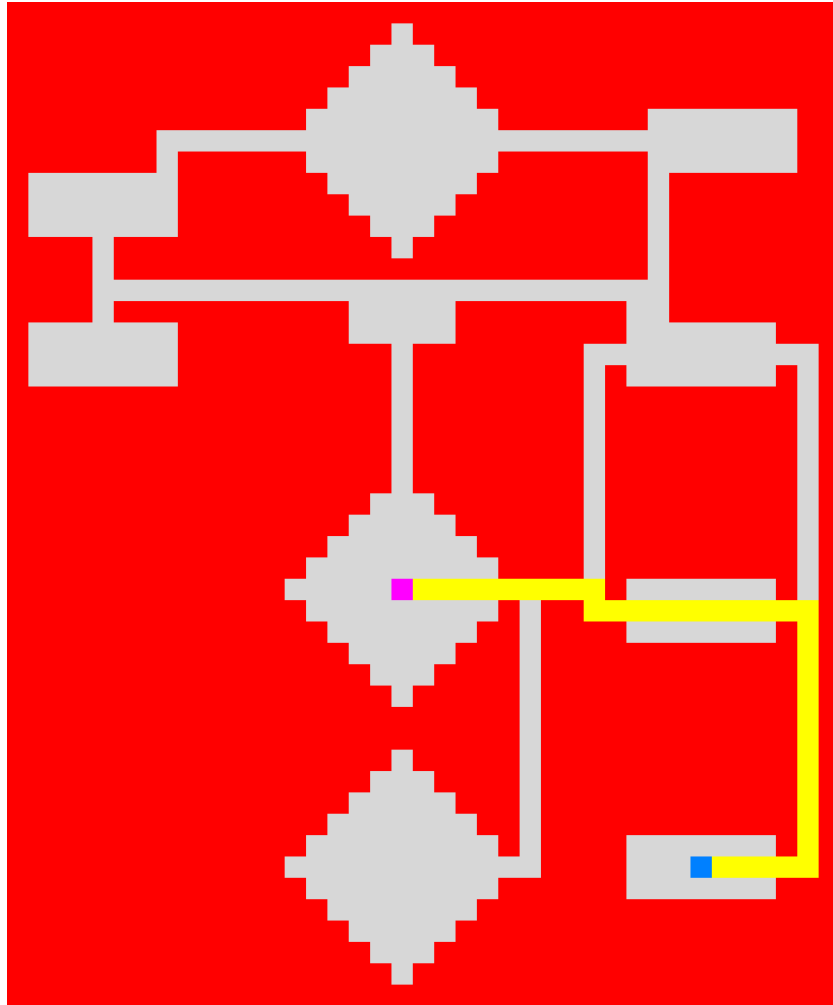


Figure 1: Visual representation for task 1

Task 2

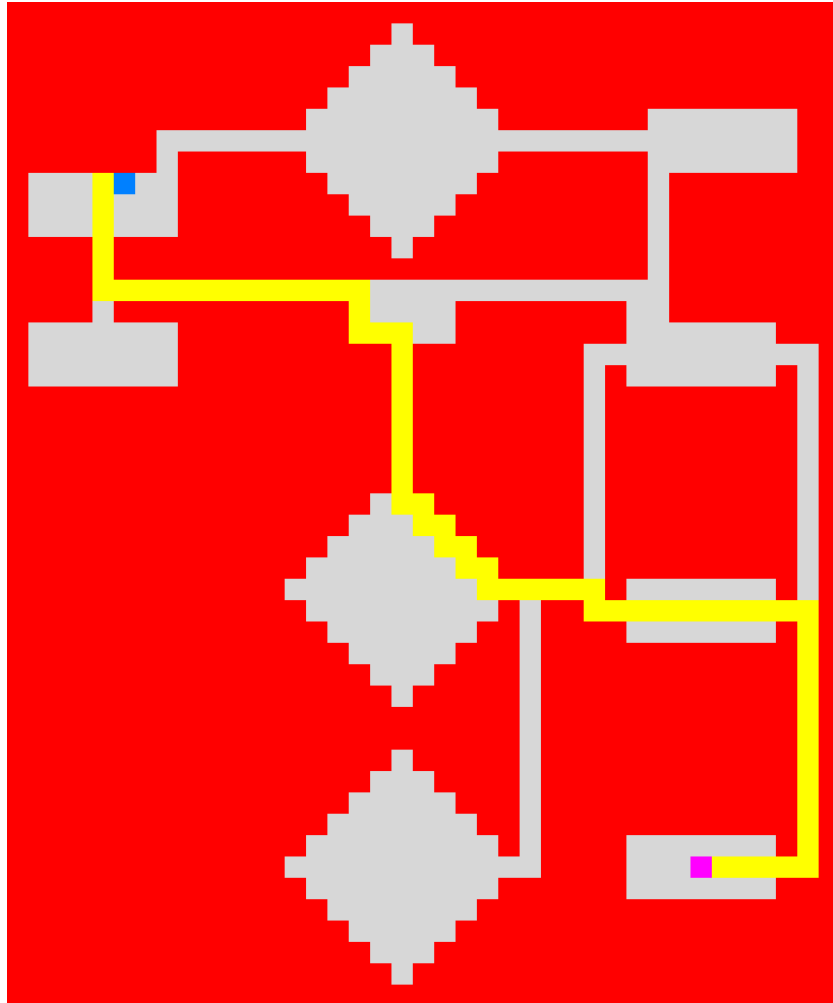


Figure 2: Visual representation for task 2

Task 3

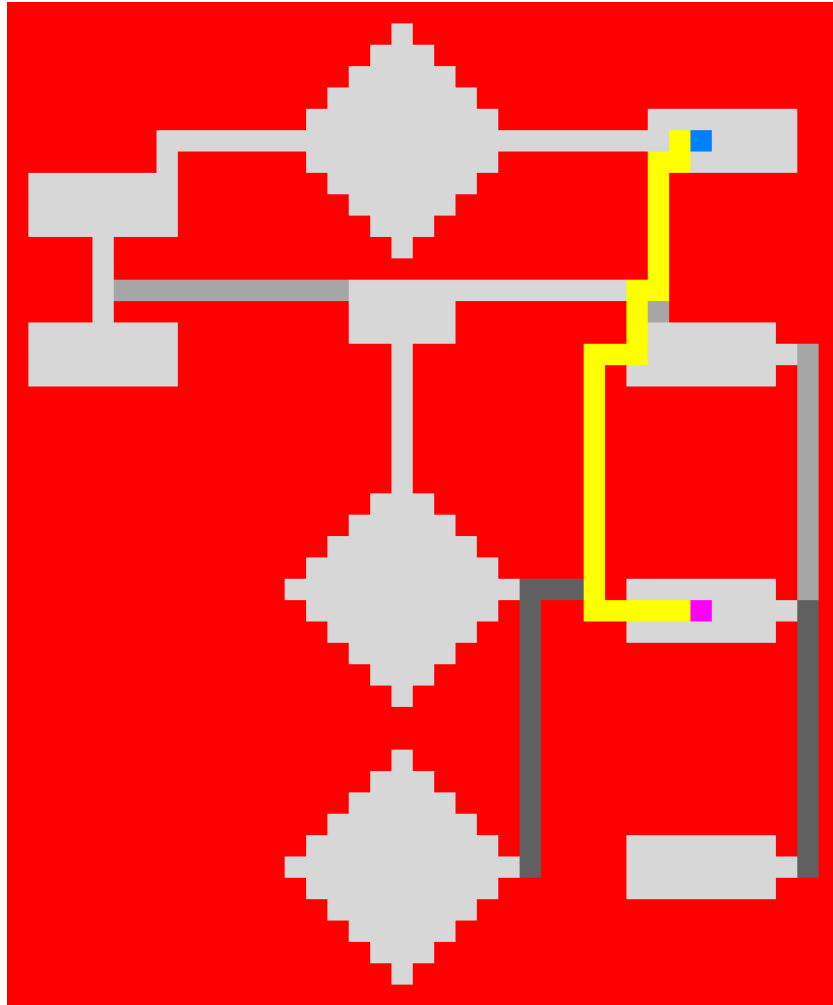


Figure 3: Visual representation for task 3

Task 4

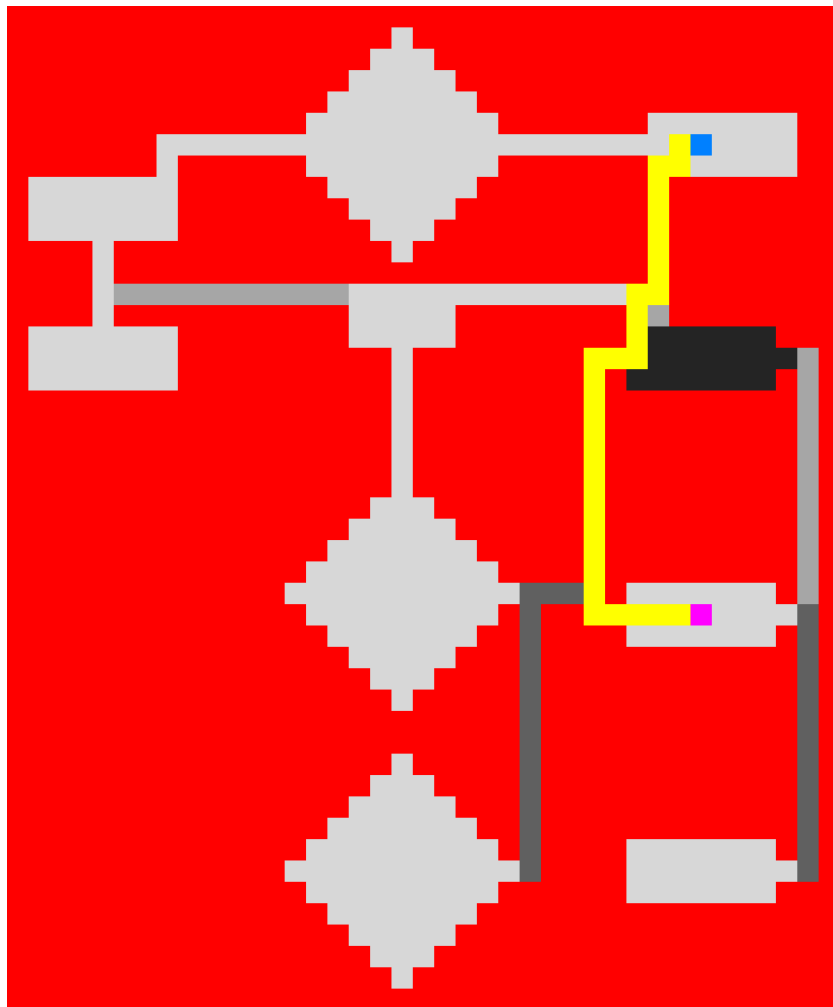


Figure 4: Visual representation for task 4

Task 5

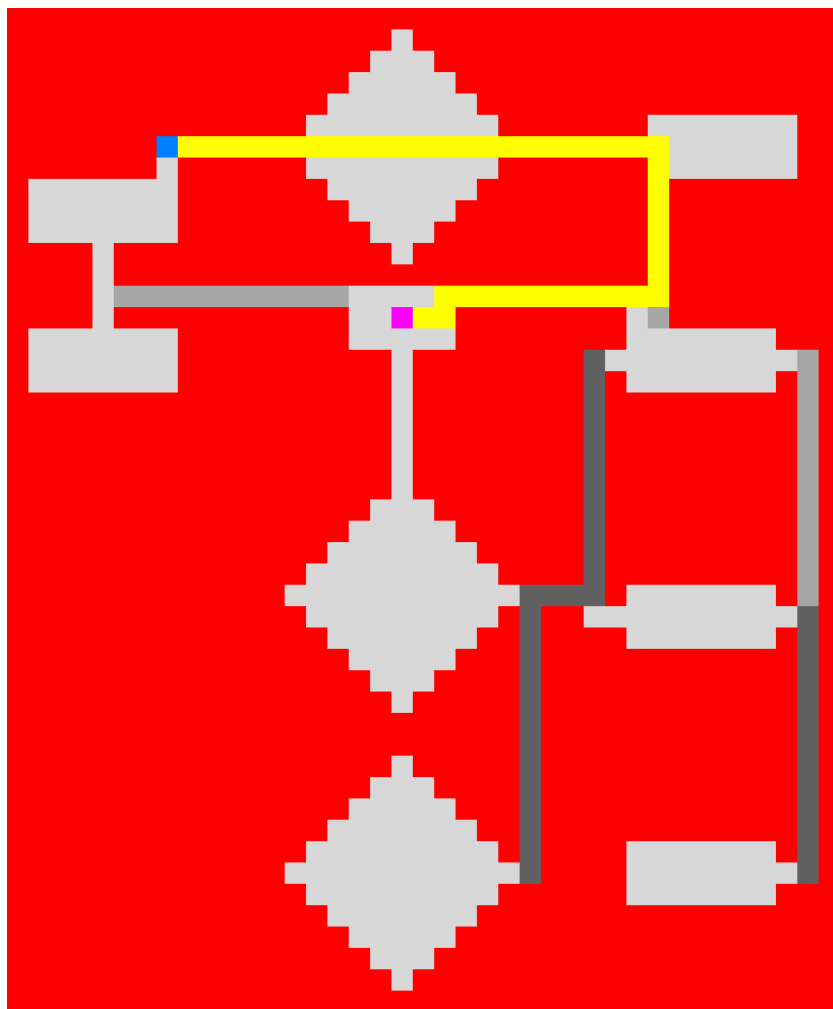


Figure 5: Visual representation for task 5