**VIETNAM NATIONAL UNIVERSITY**

**UNIVERSITY OF SCIENCE**

**FACULTY OF INFORMATION TECHNOLOGY**



**PROJECT 01**

**ARTIFICIAL INTELLIGENCE**

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# Assignment plan and overall

|  |  |  |
| --- | --- | --- |
| No. | Specification | Complete |
| 1 | Finish level 1 successfully. |  |
| 2 | Finish level 2 successfully. |  |
| 3 | Finish level 3 successfully. |  |
| 4 | Finish level 4 successfully. |  |
| 5 | Graphical demonstration of each step of the running process. |  |
| 6 | Generate at least 5 maps with difference in number and structure of walls, monsters, and food. |  |
| 7 | Report |  |

# Explaning code: Object.py

class pacman(object):

* Initialize pacman character from png image file.
* Draw pacman at position x, y read from the map file.

class monster(object):

class food(object):

# Explaning code: pacman.py

Function def random\_Maze():

* Randomly initialize two variables for map size, then create a random matrix with three values of 0, 1, 2 and then surround the matrix with value 1.
* Then random the number and value of Ghost position corresponding to a random position in the matrix.
* Assign matrix into array corresponding to each row of matrix and return the results.

Function def handle\_input():

* Initialize the variable lst as an array, open the file containing the position and matrix.
* For each line read, it is detached and fed into lst

Function def create\_maze(C):

* For each input box from the matrix will be considered at that position as Wall or Food or Ghost.
* For each position there will be additional functions.

Function def create\_data(C):

Function def update\_adjacent\_list(C):

Function def display\_score():

Function def RunAlgorithm():

Function def Controls():

# Explaning code: Searching\_Algorithm.py

# References