Project 1 – Pacman Path/Location Search

CSC 412 –Intelligent Systems

California Baptist University

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# Individual Results

## Question 1 – Tiny DFS

### Screenshot

A picture containing icon

Description automatically generatedGraphical user interface, text

Description automatically generated

### Numbers

|  |  |  |  |
| --- | --- | --- | --- |
| Cost | Execution Time (sec) | # Nodes Expanded | Pacman Score |
| 10 | 0.0 | 15 | 500 |

## Question 1 – Medium DFS

### Screenshot

A picture containing timeline

Description automatically generatedText

Description automatically generated

### Numbers

|  |  |  |  |
| --- | --- | --- | --- |
| Cost | Execution Time (sec) | # Nodes Expanded | Pacman Score |
| 130 | 0.1 | 146 | 380.0 |

## Question 1 – Big DFS

### Screenshot

A picture containing qr code

Description automatically generatedGraphical user interface, text

Description automatically generated

### Numbers

|  |  |  |  |
| --- | --- | --- | --- |
| Cost | Execution Time (sec) | # Nodes Expanded | Pacman Score |
| 210 | 0.0 | 390 | 300.0 |

## Question 2 – Tiny BFS

### Screenshot

A picture containing icon

Description automatically generatedText

Description automatically generated

### Numbers

|  |  |  |  |
| --- | --- | --- | --- |
| Cost | Execution Time (sec) | # Nodes Expanded | Pacman Score |
| 8 | 0.0 | 15 | 502.0 |

## Question 2 – Medium BFS

### Screenshot

Background pattern

Description automatically generated with medium confidence

Text

Description automatically generated

### Numbers

|  |  |  |  |
| --- | --- | --- | --- |
| Cost | Execution Time (sec) | # Nodes Expanded | Pacman Score |
| 68 | 0.0 | 269 | 442.0 |

## Question 2 – Big BFS

### Screenshot

A picture containing qr code

Description automatically generated Text

Description automatically generated

### Numbers

|  |  |  |  |
| --- | --- | --- | --- |
| Cost | Execution Time (sec) | # Nodes Expanded | Pacman Score |
| 210 | 0.0 | 620 | 300.0 |

## Question 3 – Tiny UCS

### Screenshot

A picture containing icon

Description automatically generatedText

Description automatically generated

### Numbers

|  |  |  |  |
| --- | --- | --- | --- |
| Cost | Execution Time (sec) | # Nodes Expanded | Pacman Score |
| 8 | 0.0 | 15 | 502.0 |

## Question 3 – Medium UCS

### Screenshot

Background pattern

Description automatically generatedText

Description automatically generated

### Numbers

|  |  |  |  |
| --- | --- | --- | --- |
| Cost | Execution Time (sec) | # Nodes Expanded | Pacman Score |
| 68 | 0.0 | 269 | 442.0 |

## Question 3 – Big UCS

### Screenshot

wA picture containing qr code

Description automatically generatedText

Description automatically generated

### Numbers

|  |  |  |  |
| --- | --- | --- | --- |
| Cost | Execution Time (sec) | # Nodes Expanded | Pacman Score |
| 210 | 0.2 | 620 | 300.0 |

## Question 3 – Medium Dotted Stay East UCS

### Screenshot

A picture containing background pattern

Description automatically generatedText

Description automatically generated

### Numbers

|  |  |  |  |
| --- | --- | --- | --- |
| Cost | Execution Time (sec) | # Nodes Expanded | Pacman Score |
| 1 | 0.0 | 186 | 646 |

## Question 3 – Scary Stay West UCS

### Screenshot

A screenshot of a computer

Description automatically generated with medium confidence

Text

Description automatically generated

### Numbers

|  |  |  |  |
| --- | --- | --- | --- |
| Cost | Execution Time (sec) | # Nodes Expanded | Pacman Score |
| 1 | 0.0 | 186 | 646 |

## Question 4 – Big A\*

### Screenshot

A picture containing icon

Description automatically generated Text

Description automatically generated

### Numbers

|  |  |  |  |
| --- | --- | --- | --- |
| Cost | Execution Time (sec) | # Nodes Expanded | Pacman Score |
| 8 | 0.0 | 14 | 502.0 |

## Question 4 – Big A\*

### Screenshot

A picture containing background pattern

Description automatically generated

Text

Description automatically generated

### Numbers

|  |  |  |  |
| --- | --- | --- | --- |
| Cost | Execution Time (sec) | # Nodes Expanded | Pacman Score |
| 68 | 0.0 | 221 | 442 |

## Question 4 – Big A\*

### Screenshot

A picture containing qr code

Description automatically generated

Text

Description automatically generated

### Numbers

|  |  |  |  |
| --- | --- | --- | --- |
| Cost | Execution Time (sec) | # Nodes Expanded | Pacman Score |
| 210 | 0.1 | 549 | 300.0 |

# Summary

## Summary Chart

The following chart summarizes the individual results provided in the previous section:

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| **Alg.** | **Maze** | **Cost**  **(Solution Quality)** | **Execution Time (s)** | **# Nodes**  **(Time Complexity)** |
| **DFS** | **Tiny** | 10 | 0.0 | 15 |
| **Med** | 130 | 0.1 | 146 |
| **Big** | 210 | 0.4 | 390 |
| **BFS** | **Tiny** | 19 | 0.0 | 92 |
| **Med** | 68 | 0.0 | 269 |
| **Big** | 210 | 0.0 | 620 |
| **UCS** | **Tiny** |  |  |  |
| **Med** |  |  |  |
| **Big** |  |  |  |
| **A\*** | **Tiny** |  |  |  |
| **Med** |  |  |  |
| **Big** |  |  |  |

## Summary Explanation

Include a detailed explanation of the results seen in the summary chart above. This should be at least ½ page of thoughtful dialogue.