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**School Of Information Technology**

**IT2553 Data Structure and Algorithms**

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| **Admin No & Team Members Name:** | 201520M: Eden Will Sng Jin Xuan |
| **PEM Group:** | SF2102 |
| **Module:** | IT2553-02 |
| **Practical** | 2 |

a)Watch video

b)

1. Minimax search algorithms
2. It uses a tree data structure
3. Two most important criteria
   1. Solve problem
   2. Most efficient

The most perfect algorithm takes the most time to find the answer, but a not so perfect algorithm can do the same but in lesser time.

In some case, good is good enough.

1. Computer scientists uses the technique, asymptotic analysis which allows algorithms to be compared independently of a particular programming language or hardware
2. Linear Search where one searches all the numbers as though theyre lined up in a row. Binary search where for every guess, you half the remaining numbers
3. Its because binary search halves the remaining number of guess possible, in a 300guess question u can do log2(300) to derive the number of guesses needed to solve the qn which gives me 8.2288 rounded to nearest whole its 9 attempts. Hence it needs 9 attempts to solve the binary search of 300 attempts. This can be applied to for example 50,000 entries , which would take at most 16 attempts(nearest whole no.)
4. Cost marking algorithm is used to find the shortest path in the maze  
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2. Answer on Python File