

# 2810, Software Technologies Assignment 1

Zaymon Foulds-Cook, s5017391 | Natnicha Titiphanpong, s2940970

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# **1 Software Technologies Assignment 1**

## **1.1 Problem Statement**

## **1.2 User Requirements**

The following list itemizes the user requirements for the implementation of the Ladder-gram program

- The user should be able to interact with the program by specifying the start and goal word
- The user should be prompted with an option to supply a list of words that cannot be used in the path solution
- The user should be prompted with an option to find the shortest path from start word to goal word

## **1.3 Software Requirements**

The following list itemizes the software requirements for the implementation of the Ladder-gram program

- The program will notify the user if the inputs are invalid
- The program will notify the user if a solution was found
- If a valid solution is found the program will print it to the console

## 1.4 Software Design

High Level Design - Logical Block Diagram | Ladder-gram

## Structure Chart - UML | Ladder-gram

List all functions in the software

### Functions in the Ladder-gram Program

1. **Function name** | description

Input Parameters: None

Side Effects:

- side effect 1

Returns: void

List all of the data structures in the Ladder-gram program

1. **Type** | Purpose

Used in the following functions:

- item 1

Detailed Design

Generate Solutions Pseudo-code

- 1.5 Configuration Management and Version Control
- 1.6 Unit Tests
- 1.7 Requirement Acceptance Tests
- 1.8 User Instructions