

SWDQ Assignment

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Testing Document

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Table of Contents

[1. Branch & Path Analysis 2](#_Toc438495868)

[1.1. Student Login Mode 2](#_Toc438495869)

[1.2. Admin Login Mode 4](#_Toc438495870)

Table of Figures

[Figure 1 - Student Login Mode analysis 2](#_Toc438496288)

[Figure 2 - Admin Login Mode analysis 4](#_Toc438496289)

# Branch & Path Analysis

## Student Login Mode



Figure - Student Login Mode analysis

There are 3 branches and 3 potential paths that can be assumed by this flowchart:

Path 1: A1-B8-H9-I10

Path 2: A1- B2-C3-D4-E5-F6-G7

Path 3: A1-B11

* To test path 1:

It is assumed that the student has logged on and chose the ‘View Profile’ option in the menu.   
Their profile data is being displayed on the screen until they press the ‘ESC’ button which exits the program.

* To test path 2:

It is assumed that the student has logged on and chose the ‘Attempt Quiz’ option in the menu.  
The first question along with 4 possible answers is displayed to the student. They have to choose one answer and press ‘enter’ to continue to the next question. Process is repeated until all 10 questions are answered. At the end of the quiz attempt the result is displayed to the student and saved to their profile. Upon pressing the ‘ESC’ button the program quits.

* To test path 3:

It is assumed that the student has logged on and chose the ‘Exit’ option in the menu. The program quits straight away.

Performing those tests, it is possible to check all paths and therefore all branches.

## Admin Login Mode



Figure - Admin Login Mode analysis

There are 4 branches and 4 potential paths that can be assumed by this flowchart:

Path 1: A1-B2-C3-D4-E5

Path 2: A1-B9-H10-I11-J12

Path 3: A1-B6-F7-G8

Path 4: A1-B13

* To test path 1:

It is assumed that the admin has logged on and chose the ‘Modify Questions’ option in the menu.  
A text file with all questions and answers is being opened which the admin can edit to their own liking. It can be then saved and overwritten. Pressing the ‘ESC’ button quits the program.

* To test path 2:

It is assumed that the admin has logged on and chose the ‘View Student Profile’ option in the menu.  
Admin is prompted to enter the desired students ID number after which the given students profile is being presented to the admin. The program quits upon the ‘ESC’ button being pressed.

* To test path 3:

It is assumed that the admin has logged on and chose the ‘Generate Class Report’ option in the menu. A class report is created upon the request. It consists of the profiles of all students that have previously taken the quiz. Program quits after the ‘ESC’ button has been pressed.

* To test path 4:

It is assumed that the admin has logged on and chose the ‘Exit’ option in the menu. The program quits straight away.

Performing those tests, it is possible to check all paths and therefore all branches.